

**U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration**

Draft Regulatory Evaluation

Regulated Natural Gas Gathering Lines

Docket RSPA-1998-4868

Regulatory Analysis

Background

The Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Pipeline Safety (OPS) has statutory authority to issue safety standards for gas pipeline transportation (49 U.S.C. 60102(a)). Gathering lines are pipelines used to collect and transport natural gas from the well and related production facilities to transmission or distribution pipelines, which then transport the gas to a gas consumer, such as a residence or business. OPS safety regulations in 49 CFR Part 192 apply to the design, construction, operation, and maintenance of these pipelines. Currently, the regulations do not cover production facilities or onshore gathering lines in locations outside cities, towns, villages, or designated residential or commercial areas (hereinafter "rural locations") (§192.1(b)(4)).

In 1992, Congress provided DOT specific authority to define gas gathering for purposes of safety regulation, and to change the scope of regulation by defining "regulated gathering."¹ The 1992 statutory change also directed OPS to consider the functional and operational characteristics of the lines in labeling them as gathering, and to consider such factors as location, length of line from the well site, operating pressure, throughput, and the composition of the gas in deciding which ones to regulate.

To fulfill its statutory mandates, OPS is proposing to amend 49 CFR parts 192.1, 192.3, 192.4, 192.6, 192.7, and 192.9 to (i) revise the title, (ii) add definitions of "onshore gathering line", "potential impact circle," "potential impact radius", and "regulated onshore gathering line," and (iii) to establish safety standards for regulated onshore gathering lines in the accompanying Supplemental Notice of Proposed Rulemaking (SNPRM).

Statement of the Problem

DOT's gas pipeline safety regulations (49 CFR Part 192) do not presently define gas gathering lines, except by comparison to transmission lines. Similarly, the regulations define gas transmission lines as pipelines used in the transportation of gas but which are

¹See P. L. No. 102-508, § 109; now 49 U.S.C. 60101(a)(21) and 60101(b).

not gathering lines. In addition, the scope of the regulations applies to gathering lines that are within the limits of an incorporated or unincorporated city, town, or village or in any designated residential or commercial area such as a subdivision, business or shopping center, or community development. There is not always agreement as to when an area meets these criteria. The result is uncertainty regarding the classification of pipelines – whether they are transmission lines or gathering lines as well as, if gathering lines, whether they are subject to OPS jurisdiction.

Most states have pipeline safety inspection programs that regulate the safety of intrastate pipelines operating in their state, subject to the requirements of 49 CFR Part 192 (and additional requirements that the states may impose). This generally includes gathering lines. OPS regulates the safety of interstate pipelines, with the assistance of some state pipeline safety programs that serve as agents of OPS for that purpose.

As a result, there are a number of different regulatory agencies that exercise responsibility to oversee pipeline safety regulations. Confusion regarding the definition of gathering lines can result in inconsistencies in how applicable regulations are enforced with respect to those pipelines. The proposed rule aims to eliminate inconsistency by providing a consistent definition of regulated gathering lines.

Congress has also recognized the need to better define gas gathering lines and to clarify what regulatory requirements are applicable to those lines. The Pipeline Safety Act of 1992 required the Secretary of Transportation to incorporate a definition of gathering lines into the pipeline safety regulations, to identify which gathering lines should be subject to regulation, and to specify the requirements applicable to those pipelines. The proposed rule also responds to this statutory mandate.

The regulations do not now specify safety requirements specifically applicable to gathering lines. Instead, they provide that operators of gathering lines subject to the regulations must meet requirements specified for transmission pipelines². Transmission pipelines include pipelines that are large (up to 42 inches in diameter), operate at high pressures (which can be above 1000 pounds per square inch, psi), and extend for hundreds or thousands of miles, traversing some areas with significant populations. The regulations applicable to these pipelines have been established to protect the public from the risks that can be posed by such pipelines.

Gathering lines are different. Most gathering lines are smaller in diameter, some as small as 2 inches in diameter. Gathering lines typically operate at much lower pressures. Gathering lines also do not extend for thousands of miles. Instead, gathering lines typically exist as a network of pipelines, connecting individual wells or production fields, covering at most a few hundred miles, often in a limited geographic area, and located, for the most part, in very rural areas. Incidents on gathering lines thus would generally involve much lower consequences to public safety than would incidents on transmission pipelines, and the incident record shows that the consequences of gathering line incidents has, indeed, been much less.

² 49 CFR 192.9

Requiring application of safety regulations established for transmission pipelines to gathering lines thus imposes an unnecessary burden on operators of gathering lines. Application of a more limited set of safety requirements, focused directly on issues that are safety concerns for gathering lines, would result in reduced burden (and costs) with increased safety as the risk-based classification system would efficiently target gathering lines that pose higher risk to public safety.

The proposed rule would establish a definition for gathering lines that would be applicable to federal and state regulation of these pipelines. It clarifies which gathering lines are subject to safety regulation, based on the possibility of public safety consequences from an incident. Finally, it establishes a set of safety requirements specifically appropriate for those gathering lines subject to safety regulation, the implementation of which would be less burdensome to operators.

Rationale for Regulatory Assessment

Executive Order 12866 directs all Federal agencies to develop both preliminary and final regulatory analyses if their proposed regulations are likely to be “significant regulatory actions” that may have an annual impact on the economy of \$100 million. The Order also requires a determination as to whether a proposed rule could adversely affect the economy or a section of the economy in terms of productivity and employment, the environment, public health, safety, or State, local or tribal governments. In accordance with the regulatory philosophy and principles provided in Sections 1(a) and (b) and Section 6(a)(3)(C) of Executive Order 12866, an economic analysis of the proposed regulatory changes must be conducted. Furthermore, the Regulatory Flexibility Act of 1980, as amended, requires Federal agencies to conduct a separate analysis of the economic impact of proposed rules on small entities, and the Unfunded Mandates Act also requires economic impact analysis.

In accordance with the above directives, OPS has performed a preliminary evaluation of the potential compliance costs of the proposed rule and feasible regulatory options and identified those benefits that can be expressed in monetary terms. To the extent possible, this is based on the available data and information from a range of sources including OPS’s Incident Reporting Database and extensive comments received from the stakeholders since 1991. OPS estimates that the impact of implementing the proposed rule would not be greater than \$100 million annually, nor would the rule adversely affect the economy or a section of the economy in terms of productivity and employment, the environment, public health, safety, or State, local or tribal governments. OPS has also determined, as required by the Regulatory Flexibility Act, that the proposed rule would not have a significant economic impact on a substantial number of small entities in the United States. Additionally, it was determined that the rule would not impose annual expenditures of \$120.7 million or more on State, local, or tribal governments or the private sector (and thus would not require an Unfunded Mandates Act analysis).

Alternatives Considered

OPS considered several alternatives to assure the necessary protection from potential incidents on gas gathering lines. These alternatives were:

1. No action
2. Imposing all requirements of Part 192 on all gathering lines
3. Developing a definition for gas gathering lines different from that in an industry standard (API RP-80).
4. Developing a wholly-new set of safety regulations applicable to gathering lines
5. Adopting the definition of gathering lines provided in RP-80 (with minor exceptions), defining regulated gathering lines on the basis of potential consequences of incidents, and applying selected current safety requirements to those regulated lines.

1. No action.

Regulatory analyses typically consider an alternative in which the agency would not take any action, because it would maintain the status quo. No new requirements would be levied. No costs would be incurred to implement new requirements. No new benefits would result.

As described above, gathering lines now are not defined clearly in the regulations. Gathering lines are subject to regulatory requirements only when they are in areas that are part of incorporated or unincorporated cities, towns or villages or in designated residential or commercial areas such as a subdivision, business or shopping center, or community development. Lines that meet these criteria are subject to the requirements for transmission pipelines.

This results in an application of requirements that is both ineffective and inefficient. It is ineffective in that it fails to provide necessary protection to persons near the pipeline who are not in incorporated or designated developed areas. It is ineffective in that it requires operators to implement measures, on those portions of gathering pipelines that are regulated, which are appropriate to pipelines that pose much greater risk than most gathering lines.

Taking no action would also not be responsive to the Congressional mandate to define gathering lines and to establish appropriate requirements.

For these reasons, the “no action” alternative was not considered further.

2. Revising the regulations to apply all requirements applicable to transmission pipelines to all gathering lines

Another alternative would be to apply all the requirements now applicable to transmission pipelines to all gathering lines, regardless of their location. This would obviate the need to define more precisely the point at which gathering ceases and

transmission begins, since the same requirements would be applicable to both pipelines. It would also take advantage of over 30 years of experience that have gone into the current transmission pipeline regulations, which have allowed refinement of the requirements therein so that they more effectively protect public safety.

Many, perhaps most, gathering lines are located in rural areas with little or no population. Many of these lines also are small in diameter, and operate at low pressures. As a result, these pipelines pose a much lesser risk than do transmission lines. Imposition of transmission line requirements on gathering lines in rural areas is not necessary to assure public safety, due to the minimal risk posed by these pipelines.

Imposing transmission line requirements on all gathering lines would also significantly increase the costs of operating those pipelines. This, in turn, would result in a significant increase in the cost of gas from the wells served, in order for operators to recover these increased costs. Many gas wells currently are “marginal” producers³. That is, the price of gas sold is marginally higher than the cost to operate the well and produce the gas. Increases in operating costs could make it unprofitable to operate the well, resulting in the well being “shut in,” or production ceasing.

The significant cost increases that would be associated with imposing all transmission pipeline requirements on all gathering lines would be likely to result in a large number of wells being shut in. This would reduce natural gas production in the U.S.⁴. As described above, there would be minimal safety benefit to taking this option. There would be significant negative impact on the energy security of the United States, since production of natural gas would decline at a time when demand is increasing.

For these reasons, the option of imposing all transmission line requirements on all gathering lines was not evaluated further.

3. Develop a definition for regulated gathering lines independent of work done by the industry

The pipeline industry has expended considerable effort to develop a more precise definition of gathering lines, resulting in the publication of American Petroleum Institute Recommended Practice 80, “Guidelines for the Definition of Onshore Gas Gathering Lines” (API RP-80). OPS could embark on a new effort to define gas gathering lines as a means of focusing safety regulation.

Taking such a course of action would require OPS to evaluate the design and function of gas gathering systems, including typical systems and those that might use different designs due to differing local circumstances. Based upon this evaluation, OPS would

³ A marginal well is generally defined as a well that produces less than 60,000 cubic feet of gas per day.

⁴ “Interstate Oil and Gas Compact Commission, Marginal Oil and Gas: Fuel for Economic Growth (2003 Edition)” estimates that approximately 10 percent of all natural gas produced in the United States during 2002 was from marginal wells. This study was presented at the February 2004 meeting of OPS’s Technical Pipeline Safety Standards Advisory Committee.

need to define a functional point at which production, at the well head, is considered to give way to “gathering.” Similarly, OPS would need to define a point at which gathering ends and transmission (or distribution) begins. This summary describes the work that was performed in developing API RP-80. A new effort would ignore this work, and would necessarily duplicate much of the effort already invested.

Performing this work would require a significant investment of federal resources and time. In addition, validating the federal action would require significant interaction with the pipeline industry. Industry is likely to be uninterested in investing the time required to work with OPS on a new definition, since they have already completed work on the same subject. Industry comments to OPS in this docket have consistently suggested that API RP-80 be used to define gas gathering lines for regulatory purposes.

Finally, it is unlikely that a new effort would develop a significantly better, or different, definition. There are a limited number of ways in which the beginning and ending points of gathering can be defined, and the industry effort considered various combinations.

For these reasons, the alternative of developing a wholly-new definition for gathering lines was not evaluated further.

4. Develop an entirely new set of regulations applicable to gas gathering lines

Federal safety regulations for natural gas pipelines were established more than 30 years ago, and were based upon industry codes and standards that had, themselves, been developed over several decades. Numerous refinements have been made since the initial set of regulations to reflect experience and to better assure that the regulations protect public safety. Transportation by pipeline is safer than any other mode of transportation. While incidents do occur, they are unusual events, and incidents with serious consequences occur only rarely. Attempting to develop a new set of safety regulations would ignore the wealth of experience and development over time that are inherently a part of the current regulatory system.

The threats that can affect gathering lines are the same as those that can affect other pipelines. The principal causes of pipeline accidents are corrosion and outside force damage, including damage by nearby excavations. These are the same major threats faced by gathering lines. There is nothing about the design and operation of gathering lines that is so unique as to give rise to new threats or to lead to an expectation that practices that have proven effective against threats to transmission pipelines would not be effective in protecting gathering lines.

Finally, as for the alternative of developing a wholly-new definition, significant federal resources and time would be expended on developing a new set of safety regulations, again with little likelihood that they would be any more effective than current requirements.

For these reasons, the alternative of developing a new set of safety regulations applicable to gathering lines was not evaluated further.

5. Adopt the gathering line definition in API RP-80, with minor changes, and apply selected current regulations applicable to transmission pipelines as necessary to address risks

The work that has already been performed serves as a reasonable basis for action. The industry has invested considerable effort in developing API RP-80 to define gas gathering lines, and the results appear reasonable. OPS, and state agencies that also regulate pipeline safety, can use this document as a starting point, and can make minor modifications, if necessary, to assure appropriate results.

Similarly, OPS can select from existing regulations applicable to transmission pipelines to identify the necessary set of requirements to assure safety of those gathering lines to be subject to safety regulation. Selection can be done taking into consideration the relative risk posed by gathering lines and transmission pipelines.

This approach is most likely to result in development of appropriate safety requirements, applicable to the pipeline for which they are most appropriate, in the most efficient manner. For this reason, this alternative was selected.

Economic Analysis

Defining Baseline/Current Regulatory Condition

Currently, a gathering line is defined in 49 CFR 192.3 as:

“a pipeline that transports gas from a current production facility to a transmission line or main.”

A transmission line is, in turn, defined as:

“A pipeline other than a gathering line that...”

Within the current regulations, therefore, it is unclear where gathering stops and transmission begins. It is clear that a pipeline cannot be both. It is not always clear, however, which it is.

Production facility is not even defined in the current regulations, so there is similar uncertainty about where production ends and gathering begins.

There are at least 215,000 miles of onshore gathering line in the U.S. operated by over 2800 operators.⁵ Only a portion of this mileage is now subject to safety regulation.

The scope of 49 CFR Part 192 applies to all pipelines used in transportation of gas, with some exceptions. Among the exceptions are:

“Onshore gathering of gas outside of the following areas:

- (i) An area within the limits of any incorporated or unincorporated city, town, or village.
- (ii) Any designated residential or commercial area such as a subdivision, business or shopping center, or community development.”⁶

Thus, gathering lines that are located in rural areas, not fitting the descriptions in the exception, are not regulated. Regulated gathering lines are sometimes referred to as “non-rural” gathering lines. Annual reports filed by 400 gathering system operators in 2003 reported a total of approximately 15,700 miles of non-rural gathering lines subject to OPS jurisdiction (i.e., regulated).

These non-rural pipelines are treated, for regulatory purposes, as though they were transmission lines. 49 CFR 192.9 requires that operators of all gathering lines subject to the regulations “must comply with the requirements of this part applicable to transmission lines.” These requirements were developed for pipelines that include those of large diameter, operating at high pressures, and traversing great distances. They are not always appropriate for gathering lines that tend to be smaller, operate at relatively lower pressures, and extend only for a few miles.

Operators of non-rural gathering lines incur costs to comply with safety regulations. Based upon informal discussions with industry representatives, OPS estimates these costs to be approximately \$1,500 per mile per year. The estimated operating cost for complying with safety regulations for the 16,000 miles of gathering line now regulated are thus \$24 million per year.

Review by the Technical Pipeline Safety Standards Committee

OPS has been discussing this issue for several years, including previous suggestions for possible rule changes. These discussions have included review by the Technical Pipeline Safety Standards Committee (TPSSC)⁷.

⁵ Mileage is based on information provided by the Gas Processors Association indicating 179,000 miles of unregulated gathering lines plus an allowance of 20,000 miles for gathering lines operated by members of the Independent Petroleum Association of America and 16,000 miles currently regulated.

⁶ 49 CFR 192.1(b)(4)

⁷ The composition and duties of the TPSSC are set forth in 49 USC 60115. OPS consults TPSSC on all its gas pipeline rulemaking efforts.

With respect to the focus of this analysis, the TPSSC recommended that OPS conduct a cost benefit analysis including involvement of all stakeholders. Of particular concern was involvement of operators of gathering lines that have no mileage in incorporated areas and that have thus not previously been subject to pipeline safety regulations nor been involved in OPS rulemaking activities.

In response to this recommendation, OPS held discussions with members of the Gas Processors Association (GPA) and the Independent Petroleum Association of America (IPAA). The latter organization, in particular, includes in its membership independent operators of producing gas wells, and the gathering lines associated with those wells. These associations represent a significant number of the companies operating gathering lines that have not previously been subject to pipeline safety regulations. Both associations have provided information related to the potential costs to their members of the regulatory changes under consideration in this SNPRM. That information has been used in this regulatory analysis, which is responsive to the TPSSC recommendation that the costs and benefits of the proposed rule be analyzed.

The proposed rule would (i) adopt the definition of gathering lines provided in RP-80 (with minor exceptions), (ii) define regulated gathering lines on the basis of potential consequences of incidents, and (iii) apply selected current safety requirements to those regulated lines. The proposed rule would provide regulatory relief to gathering line operators based on the actual risks related to the transportation of natural gas from production wells to locations where natural gas is processed for end use or enters other pipelines transporting it to end users. Consistent definition would resolve confusion that has existed over where gathering begins (i.e., where “production” at the well ends) and where gathering ends (i.e., where pipeline transportation becomes another type of regulated activity, either transmission or distribution). The result is intended to be a more consistent application of safety requirements, focused where they would do the most good. Therefore, this economic analysis is conducted for Alternative 5 only. That regulatory alternative would minimize the regulatory burden without sacrificing safety.

This analysis of benefits and costs takes the following approach. First, the mileage impacted by the regulatory change is identified and estimated. Next, the potential costs of the rule are examined. Finally, a discussion of the costs versus the benefits is presented. It should be noted that, unless otherwise specified, all dollar values in this report are given in constant 2003 dollars.⁸

Impacted Mileage

In this section the total pipeline mileage impacted by the proposed regulatory change is estimated. That mileage is located in areas in which defined numbers of people are

⁸ Where necessary, dollars are converted from nominal values to real 2003 values using the Producer Price Index (PPI), Intermediate Materials, Supplies, and Components. The source of the PPI index numbers is the U.S. Bureau of Labor Statistics Web page.

within specified distances of the pipeline. The distances vary depending on the diameter of the pipe and the pressure at which it operates.

As described above the total amount of gas gathering pipelines in the U.S. is estimated to be 215,000 miles. (OPS invites comments on the accuracy of this estimate). Of these, approximately 7 percent of the total gathering lines, or 16,000 miles are currently subject to safety regulation⁹. Under the proposed regulatory change, some mileage currently subject to regulation would no longer be regulated. Some mileage now not regulated, that which is not “non-rural” under the current regulations but which is located near concentrations of people meeting criteria in the proposed rule, would come under the regulations. OPS estimates that these changes would result in the total mileage of gas gathering lines subject to Part 192 being approximately the same, about 16,000 miles, although the particular miles of pipeline to be regulated would vary somewhat. Of these, OPS assumes that approximately 4,000 miles would be Type A gathering lines (i.e., operating at >20 percent SMYS) and 12,000 miles would be Type B lines (operating at lower pressure). These estimates are used throughout this analysis.

OPS acknowledges that these mileage figures are essentially estimates. Determining the actual number of miles of gathering lines that would be regulated as Type A or Type B requires the application of the criteria in the proposed rule to each gathering line and its local environment. OPS does not have information about the location and environment of gathering lines, especially of those not heretofore regulated, that would allow explicit determination of whether any portion of any particular gathering line would be regulated. Pipeline operators must make these determinations. OPS invites public comment on the reasonableness of its estimates. Table 1 illustrates the proposed regulatory changes and the estimated mileage of onshore gathering lines based on the current and proposed rule.

⁹Annual reports filed by gathering system operators in 2003 reported a total of approximately 15,700 miles of non-rural gathering lines subject to OPS jurisdiction. To be conservative, this regulatory evaluation uses 16,000 for purposes of the cost calculations.

Table 1: Proposed Regulatory Changes

Regulatory Provision	Current Requirements	Proposed Rule	
Scope Part 192.1	Applies only to gathering lines in “non-rural” areas	Applies to “regulated onshore gathering lines”	
Definition Part 192.3	Gathering line means a pipeline that transports gas from a current production facility to a transmission line or main	Onshore gathering line means any pipeline or part of a connected series of pipelines that qualifies as an onshore gathering line under section 2.2 of API RP 80 with certain limitations	
Safety requirements for gathering lines Part 192.9	Same as transmission lines – All Part 192 requirements applicable to transmission lines	Based on Maximum Allowable Operating Pressure	
		Type A – All Part 192 requirements applicable to transmission lines	Type B – Selected Part 192 requirements
Impacted Miles	16,000 miles	4,000 miles	12,000 miles

Compliance Cost Estimates

The following section estimates different cost components associated with compliance with Part 192 requirements. The major one-time and recurrent (annual) costs are associated with – (i) population survey, (ii) corrosion control according to Subpart I, (iii) installation and maintenance of line markers (section 192.707), (iv) carrying out a damage prevention program (section 192.614), (v) implementing a public education program (192.616), and (vi) establishing Maximum Allowable Operating Pressure (section 192.619).

(i) Population survey

Operators of gathering pipeline systems would first need to determine what parts of their system meet the definition as regulated gathering lines. This would require knowledge of

the distribution of population along the pipeline in terms of buildings intended for human occupancy, and buildings and outside areas in which more than 20 people gather. Much of this information is already available to transmission pipeline operators and to operators of gathering pipelines that are currently subject to transmission regulations, as a result of long-standing requirements to determine the class location for transmission pipelines based on the population density near the line. For gathering lines that are not currently regulated (e.g., rural lines) surveys of the pipeline would need to be done to determine the local population.

The Independent Petroleum Association of America (IPAA) estimates that it would cost its members approximately \$500 per mile to do the initial surveys. This includes surveillance and photographing the line from aircraft, and field verification of the purpose and occupancy of some buildings. IPAA further estimates that it would cost approximately \$100 per mile for “annual” surveys to determine if changes in land use have resulted in new portions of the pipeline becoming regulated gathering lines. Surveys to identify changes would not necessarily be performed annually. Most gathering lines are located in rural areas where changes in land use occur rarely and gradually. Surveys for these lines may only be required every few years. Areas where significant changes are occurring might need to be surveyed more frequently than annually. Operators would likely know of areas near their pipelines undergoing significant change as a result of their routine operating and maintenance activities on the pipeline. For purposes of this analysis, OPS assumes that periodic surveys will occur approximately annually.

Currently, operators of onshore gathering lines have to survey and re-survey the lines to determine whether any area met the areas defined in section 192.1(b)(2) as population shifts occur over time. This analysis assumes that currently all 16,000 miles of gathering lines under OPS jurisdiction have incurred the costs of an initial survey and are subject to recurring surveys.

The SNPRM proposes to define regulated onshore gathering lines based on risk categories defined by maximum allowable operating pressure of the line and the Class locations (section 192.5) or other criteria for population near the pipelines (proposed change to section 192.3). Pipeline operators of gathering lines would need to survey their lines to determine the information necessary to apply the new criteria. Population survey costs would not be incurred for the entire 199,000 miles of currently non-regulated gathering pipeline in the U.S. Much of this pipeline lies in very rural areas where specific surveys would not be necessary to determine if the local population density exceeds the criteria in the definition. OPS estimates that an initial survey would need to be conducted for 25 percent of the total non-jurisdictional pipeline mileage, or 49,750 miles. The cost to perform those initial surveys is thus estimated to be \$24.87 million.

As described above, not all areas would require re-surveys on an annual basis, since the changes in land use within a year in a given area may be known to be small, and some areas might require re-surveys more frequently. In addition, a lesser amount of mileage would need to be re-surveyed, since these surveys would focus on changes in land use

that cause new portions of the pipeline to become regulated. The re-surveys do not need to address those portions of the pipeline that are already classified as regulated gathering. OPS estimates that the annual cost of re-surveys would be \$100 per mile, consistent with the IPAA estimate discussed above. OPS conservatively estimates that surveys will need to be conducted for 15% of currently non-jurisdictional pipeline mileage, or 29,850 miles. The annual costs for these surveys are thus estimated to be \$2.985 million.

(ii) Corrosion control according to Subpart I

Currently, gathering lines subject to regulation must meet the same safety requirements as transmission pipelines and thus are required to comply with external corrosion control as required by Subpart I. Providing cathodic protection (CP) is the most costly of these requirements. Installing such protection involves placing sacrificial anodes near the pipeline and installing rectifiers to impress a current on the pipe and test points at which the current differential between pipe and soil can be measured. The excavations necessary to install anodes and test points are the driving factors in the cost to install such systems. Anodes must be installed at much closer spacing (e.g., every 30 to 50 feet) to protect bare pipe than to protect coated pipe (e.g., 350 to 500 feet). Similarly, more test points are required per mile for bare pipe. The cost to install a test point or anode is approximately \$300¹⁰, but the cost per mile varies as the mix between bare and coated pipe changes. On average, IPAA has estimated that the cost to install new cathodic protection on the systems of several of its members that participated in a pilot effort to estimate costs is approximately \$14,615 per mile. Operators with CP systems also incur annual costs, for test point monitoring and for remedial actions where monitoring indicates the system is not performing as intended. IPAA estimates these costs, again for the mix of bare and coated pipe in surveyed member piping systems, at \$382 per mile. Currently, all 16,000 miles of gathering lines subject to regulation incur this cost of compliance. The annual or recurring cost to comply with this provision is \$6.112 million per year. These are the existing compliance cost of this provision currently borne by the estimated 16,000 miles of gathering lines under OPS jurisdiction.

OPS believes that a large portion of the mileage that would be reclassified as Type A gathering lines is already cathodically protected. This is clearly the case for all currently-regulated gathering lines that would become Type A lines under the proposed rule, since those lines are already required to comply with all requirements applicable to transmission lines. OPS believes that the vast majority of currently unregulated mileage that may potentially be classified as Type A is also already protected.

Type A regulated gathering lines are, by definition, higher-pressure lines. They are, thus, lines in which the operator has a significant economic investment, and a corresponding interest in asset protection. Protecting these lines from corrosion, a leading cause of pipeline failures, is an important economic consideration for operators. Installing cathodic protection when a pipeline is originally installed involves a very small incremental cost, especially compared to the retrofit cost estimated by IPAA. This

¹⁰ Estimate by Independent Petroleum Association of America

analysis conservatively assumes that the operators of 90 percent of Type A lines would already have installed cathodic protection for asset protection purposes and would not incur costs to install such protection as a result of this rule. The total Type A mileage on which new cathodic protection must be installed would therefore be only 400 miles, at a cost of \$5.85 million. The annual recurrent cost of complying with this regulatory provision for the newly-protected Type A gathering lines is \$382 per mile or a total of \$1.53 million per year.

OPS estimates that 12,000 miles of Type B gathering pipeline would be covered under the proposed rule. OPS assumes that 80 percent of this pipeline would be metallic pipe requiring CP, and, as described above, that 60 percent of this pipe would already be protected. The total costs for installing CP systems on the Type B gathering lines not already protected is thus estimated to be \$56.12 million. Again, the annual recurrent cost of complying with this regulatory provision is \$382 per mile or a total of \$4.58 million per year for about 12,000 miles of Type B lines.

As described above, 16,000 miles of regulated gathering pipeline are currently subject to requirements including the need for annual CP monitoring. Under the proposed rule, an equivalent amount of pipeline mileage will be subject to these requirements (although, as described above, the particular miles subject to requirements may change). Since the total mileage subject to these requirements is estimated to be the same, there are no new net costs for annual CP monitoring.

(iii) Installation and maintenance of line markers (section 192.707)

Line markers involve initial costs and annual maintenance costs. Initially, markers must be installed. The cost to do so is about \$50 per marker. For regulated pipelines, markers must be installed at each crossing of a public road and railroad and wherever necessary to identify the location of the line to reduce the possibility of damage or interference¹¹. IPAA estimates that approximately 10 markers are needed per mile of pipeline, for a cost of \$500 per mile. The line must be surveyed on an ongoing basis to verify the condition of the markers, and some portion of the markers are likely to be damaged or faded and require replacement. IPAA estimates that it costs \$80 per mile each year to survey the pipeline and that 10 percent of the markers (i.e., one per mile) require replacement annually, for an annual cost of \$130 per mile. Therefore, operators of 16,000 gathering lines that are currently under OPS jurisdiction incur an annual cost of \$2.08 million per year.

Damage by excavation is one of the two major causes of pipeline accidents. Operators of these pipelines therefore have an economic interest in marking their pipelines to protect them from damage, and OPS presumes that many unregulated pipelines are marked. OPS believes that most pipeline markers used for this purpose would comply with the proposed rule, since the marking requirements in the regulations have become a common standard. OPS estimates that new line markers would be required for as much as 10 percent of the mileage that will become regulated gathering pipeline under the proposed

¹¹ 49 CFR 192.907(a)

rule, or a maximum of 1,600 miles. The initial costs to install these markers is thus estimated to be \$0.8 million. Recurrent costs to monitor and replace markers for this mileage would be \$0.208 million.

As was the case for annual CP monitoring described above, however, the total mileage of gathering pipeline subject to the need for annual maintenance of markers under the proposed rule would be the same as that currently subject to such requirements. There are thus no net new costs for the annual monitoring and replacement of line markers.

(iv) Damage prevention program (section 192.614)

Implementing a damage prevention program involves membership in a one-call program. Most states require all pipeline operators, including operators of gathering lines not subject to Part 192, to belong to one-call programs. Operators involved in one-call programs must respond to calls reporting the intent of others to excavate near their pipelines by either screening the calls (i.e., determine that the excavation is not sufficiently close to the pipeline to be of concern) or marking their lines. The costs of such a program thus depend on the number of calls (or “tickets”) that an operator experiences each year. IPAA estimates that its members address 20 tickets per mile each year, at a cost of \$1 per ticket. IPAA estimates the cost to screen and locate pipeline at \$10 per ticket. (This cost is relatively low because screening can often be performed from available records without the need for a more costly site visit). IPAA therefore estimates that the total cost per mile for implementing a damage prevention program is \$220 per year. Therefore, estimated existing costs of damage prevention program borne currently by the gathering line operators is \$3.52 million per year.

Only Colorado and Kansas, representing a total of about 700 miles of gathering pipeline, have no requirement for one-call programs. Oklahoma requirements do not apply to all gathering line operators. There are 3,270 miles of gathering line in Oklahoma, meaning that 3,970 miles nationally are potentially not now required to belong to one-call programs. Not all of that mileage would be subject to the proposed rule, however. OPS estimates that the percentage of mileage in these states that would be subject to the new rule is the same as the estimated national percentages. As described above, OPS estimates that 16,000 of 215,000 miles of gathering line nationally would be regulated as Type B gathering lines, or about 7.4 percent. Applying this percentage to the mileage in Colorado, Kansas and Oklahoma results in an estimate of 294 miles of pipeline not previously subject to one-call requirements that would become so under this proposed rule. The total cost to implement these programs over the 294 miles that would be newly covered under this rule is thus \$64,680 per year. The operating cost for complying with this provision would be \$0.88 million for Type A lines and \$2.6 million for Type B lines (which includes 294 miles of newly covered lines and costs associated with them).

Here, again, the total number of miles subject to these requirements under the proposed rule is estimated to be the same as that under current regulations. There are thus no net new costs for implementing damage prevention programs.

(v) Public education program (section 192.616)

In informal conversations with IPAA, that group estimated that a public education program would cost each of its members \$5,000 annually. This would imply that the costs are the same regardless of how much mileage a company operates. OPS agrees that there are some fixed costs associated with such a program, but also considers that costs will vary with the number of miles involved. More mileage will lead to additional needs to identify and meet with local government officials, excavators, etc. OPS has no specific data concerning what the per-mile costs would be.

For purposes of this analysis, and based on informal discussions with operators, OPS assumes that total annual costs to comply with regulations for Type B gathering lines will be \$1,000 per mile, or about 2/3 the cost for operators of Type A gathering lines to comply with all regulations applicable to transmission pipelines. Considering the costs for individual requirements estimated above, this means that the estimate for public education programs is \$168 per mile per year. The total cost to implement public education programs on the estimated 16,000 miles of gathering lines is thus \$2.69 Million.

Again, though, since the total gathering pipeline mileage subject to these requirements will be the same under the proposed rule as currently, there are no net new costs for public education programs.

(vi) Maximum allowable operating pressure (section 192.619).

Establishing MAOP does not require any physical work along the pipeline. Instead, this involves a review of pipeline records to identify the pressures to which the pipeline was tested and/or at which it has operated. These costs are incurred for major portions of each pipeline system rather than on a per-mile basis. For many pipelines, no new costs would be required, since an MAOP would already have been determined. In any event the total costs for this administrative requirement would be negligible, if any.

As indicated earlier, based upon informal discussions with industry representatives, OPS estimates that operating costs to comply with the safety requirements for gathering lines (which is same as the transmission lines and would be for the proposed Type A lines) is approximately \$1,500 per mile per year. This includes operating costs for re-survey, corrosion control, line marker maintenance, damage prevention programs as indicated above (items (i) – (iv)). The operating cost also includes costs associated with a number of provisions for transmission lines, such as patrolling (section 192.705), leakage surveys (section 192.706), record keeping (section 192.709) etc. Therefore, the estimated operating costs of the 16,000 miles of gathering line currently regulated is \$24 Million per year. OPS estimates that the 4,000 miles of Type A gathering lines would incur that same operating cost per mile, i.e., \$1,500 per mile to meet the safety requirements that

are currently applicable to gathering lines as well as transmission lines. Therefore, the compliance costs for Type A lines would be \$6.0 million per year. As discussed above, OPS estimates that the compliance costs for Type B lines would be approximately \$832 per year (items (i) – (iv)). Table 2 summarizes the current costs of compliance and the estimated cost of SNPRM.

Table 2: Estimated Additional Costs due to the SNPRM

Cost Component	Unit Cost per mile		Existing Operating costs (\$ in Million)	Additional costs due to SNPRM (\$ in Million)	
	Capital Costs	Operating (recurrent) Costs	Total	Capital Costs	Operating Costs
Population Survey	\$500	\$100	\$3.2*	\$24.87	\$2.985
Corrosion Control	\$14,615	\$382	\$6.11	\$61.97	\$0
Line Markers	\$500	\$130	\$2.08	\$0.8	\$0
Damage Prevention	NA	\$220	\$3.52	NA	\$0
Public Education	NA	\$168	\$2.69	NA	\$0
Total			\$17.60	\$86.84	\$2.985

* The need to perform population surveys for comparison with the definition of regulated gathering line is new with this SNPRM. The existing costs are represented by an estimate of the surveys required to identify class locations per 49 CFR 192.609, assumed to cost the same amount (per mile) to perform. The new definition would require similar surveys, but would refine the data to a finer level of detail.

As illustrated above, there would be a one-time cost \$86.84 million, the majority of which is due to the need to install cathodic protection for any lines that currently are not subject to OPS jurisdiction. There would also be an increased annual operating cost of \$2.985 million, resulting from the need to conduct annual population surveys to determine if population changes have resulted in new pipeline mileage meeting the criteria to become regulated.

However, the SNPRM would also reduce the operating cost burdens for Type B gas gathering lines, since these pipelines would not be subject to all of the requirements applicable to transmission (or Type A gathering) pipelines. Based on informal discussions with industry, OPS estimates for purposes of this analysis that total annual costs to comply with regulations for Type B gathering lines will be \$1,000 per mile, or about 2/3 the cost for operators of Type A gathering lines to comply with all regulations applicable to transmission pipelines¹². The annual operating cost saving under the SNPRM is thus estimated as \$6 million per year.¹³ When combined with the new cost for

¹² This includes the costs for the individual requirements described in (i) – (iv) above plus an estimate of \$268 per mile per year for the annual costs associated with a public education program ((v) above).

¹³ Cost savings = (operating costs for currently-regulated gathering pipelines) – (operating costs for Type A gathering pipelines) – (operating costs for Type B pipelines) = (\$1,500*16,000) – (\$1,500*4,000) + (\$1000*12,000) = \$6,000,000/year

annual population surveys (\$2.985 million), the net change in annual costs is a savings of \$3.015 million.

Therefore, this SNPRM would result in a total cost of \$26.54 million over 20-year period¹⁴ or an average cost of \$1.327 million per year over the analyzed period. In accordance with the OMB directives, the net present value of the net costs is estimated to be \$39.455 million over 20-years at a discount rate of 3 percent and \$49.218 million at a discount rate of 7 percent.

Table 3 illustrates the total compliance costs of the SNPRM over time (costs in Millions)

First-year Capital cost	Recurrent cost	Total First-year	Total over 20-year (nominal)	Net present value over 20-year (3% discount rate)	Net present value over 20-year (7% discount rate)
(in million \$)					
\$86.84	\$(3.015)	\$83.825	\$26.54	\$39.455	49.218
Average annual cost over 20-years (nominal)			\$1.327		

Estimated Benefits

As discussed above, the SNPRM would define gathering lines that are subject to safety regulation, based on the possibility of public safety consequences from an incident. The proposed rule establishes a set of safety requirements specifically appropriate for those gathering lines subject to safety regulation, the implementation of which would be less burdensome to operators (after an initial capital investment for some newly-regulated lines).

Currently, OPS does not have data to indicate the total number of incidents that have occurred on gas gathering lines. This is because most gathering lines are not regulated, and thus do not report incidents to OPS. Information provided by the industry indicates that the frequency of occurrence for incidents is low and OPS has no information to the contrary.

The Gas Processors Association (GPA) conducted a survey of its members (plus 2 non-member companies) concerning incidents that occurred during the period 1999 to 2003. The survey covered more than 171,000 miles of non-regulated gathering lines. The survey used a threshold for defining an incident that is more restrictive than that used for incidents on regulated pipelines that must be reported to OPS. OPS criteria require an

¹⁴ Total savings = initial costs – combined annual cost savings = \$86.84 million – 20(\$3.015 million) = \$26.54 million

incident report if there is a fatality, an injury requiring in-patient hospitalization, or property damage exceeding \$50,000. The GPA survey counted as incidents all events that involved a fatality, an injury, an evacuation, or property damage in excess of \$5,000.

The GPA survey identified a total of 58 incidents on non-regulated gas gathering lines during the five-year period addressed. These incidents involved a total of one fatality, three injuries, 7 incidents with property damage exceeding \$25,000, 19 incidents with property damage between \$5,000 and \$25,000, and 28 incidents involving an evacuation. During this same period, 20 incidents occurring on regulated gathering lines were reported to OPS. None of these incidents involved fatalities, two involved injuries (one incident involving two individuals). While OPS has no specific data to compare to the GPA survey results, the number of incidents reported by that survey is thus reasonably consistent with OPS gathering line incident data, especially considering the fact that gathering lines in the most populated areas tend to be regulated. The total number of incidents on gathering lines during the 5-year period considered is thus 78. The average rate of occurrence is 0.073 incidents per 1,000 miles per year. This compares to an incident rate for transmission pipelines over the same period of 0.27 per 1000 miles per year¹⁵, even though the reporting threshold for transmission incidents is considerably higher than that used in the GPA survey.

The same GPA survey identified the predominant causes of the gathering line incidents to be corrosion (30) and third-party damage (15). These same causes resulted in most of the incidents reported to OPS (9 and 5 respectively). (No other cause resulted in more than 2 incidents over the five-year period, except for 3 incidents reported to OPS attributed to “other”). Third-party damage accounted for the more significant incidents, including the fatality and three of the five injuries. Protecting against these threats, therefore, would provide the greatest benefit. The proposed requirements do just that.

As described above, the proposed rule would focus protection on those portions of gathering pipelines where concentrations of people exist, and where the more significant consequences thus could occur. The data available is not sufficient to determine which of these historical incidents, if any, occurred on mileage that would be regulated under the proposed rule. It is reasonable to assume, however, that most of them occurred on these sections, since they involved consequences to people, or to buildings intended to house people. For purposes of this analysis, OPS assumes that incidents would continue to happen at this rate, absent new requirements, and that all of them would happen on mileage that would be regulated under the proposed rule.

Extrapolating the five years of data, including the GPA survey results and incidents reported to OPS, to a 20-year analysis period thus indicates that a total of four fatalities,

¹⁵ Transmission incident rate based on incidents reported to OPS from 1999-2003 (401) and average onshore transmission mileage during that same period (approx. 292,500 miles). All data available at <http://ops.dpt.gov/stats.htm>.

twenty serious injuries, and \$6,140,000¹⁶ in property damage may occur, absent regulatory change. The proposed rule would focus safety attention on those areas where consequential incidents are most likely to occur. They are thus expected to reduce the number of such incidents. Their effectiveness in reducing incidents cannot now be estimated with certainty. They are unlikely to eliminate the occurrence of consequential incidents. Assuming that such incidents would be eliminated, however, provides an estimate of the maximum possible benefit that could be realized by implementing the proposed rule – it establishes the order of magnitude of the benefit. If the number of incidents on non-regulated gathering lines has been underestimated in the GPA survey, the effect would be to increase the benefits estimated for the proposed rule. Even if the proposed rule avoids just one fatality per year over 20-years, it would generate a net benefit that is approximately consistent with the increased regulatory burden (\$46.1 Million net present value at 3 percent and \$32.8 Million at 7 percent discount rate).¹⁷

OPS cannot say with certainty that implementing this proposed rule will avoid an additional fatality per year, but it is possible. The effect of the SNPRM will be to impose regulatory requirements on pipeline not currently regulated but where people are in close proximity and could be killed or injured by an accident. The SNPRM would remove from regulatory jurisdiction pipeline currently regulated but where there are no people in proximity who could be impacted. The net result is expected to be regulation of approximately the same amount of gathering line mileage, but with an improved focus likely to reduce the consequences of future accidents.

Additional benefits would result from this rule that are difficult to quantify, but which OPS believes to be significant. Foremost among these is improved public confidence. Public confidence in pipeline safety has been shaken by major incidents in recent years (none of which occurred on gathering lines). These incidents have generated concerns among public interest groups, the National Transportation Safety Board, and the Congress, and have prompted OPS to issue several new regulations. The public is concerned about the possibility of pipeline incidents that could cause them harm. Under current rules, portions of gathering lines that are not in incorporated areas but which are near concentrations of people, and where an incident could cause them harm, are not subject to pipeline safety regulations, while other portions of gathering lines, within incorporated area boundaries, are subject to regulations but cannot reasonably be foreseen to pose a risk to humans. This situation is not conducive to assuring the American public that safety regulations are being focused in a manner that provides them the maximum benefit. OPS believes it is very important that this situation be changed, so that the public living, working, and congregating near pipelines can have increased confidence that their safety is being assured.

¹⁶ This value is estimated by assuming an average consequence of \$15,000 for the 19 incidents in the GPA survey with consequences between \$5,000 and \$25,000 and property damage of \$50,000 for the 7 more severe incidents in the GPA results and the 18 incidents reported to OPS that did not involve an injury.

¹⁷ With respect to deaths and serious injuries, the following assumptions are made:

- A life is valued at \$3.1 million
- A serious injury is valued at \$517,150

These valuations are standard assumptions currently used in Office of Pipeline Safety and DOT benefit/cost analyses and inflation adjusted using GDP price deflator for 2003 \$.

Finally, operators of regulated gathering lines would be required to submit an annual summary of events occurring on those lines.¹⁸ This would provide better data for OPS to use in making future decisions about the need to change regulatory practices related to those lines.

OPS is proposing to define the regulated gathering lines to meet its statutory mandate. The proposed rule would provide regulatory relief to gas gathering line operators based on the actual risks related to the transportation of natural gas from production wells to locations where natural gas is processed for end use or enters other pipelines transporting it to end users. Consistent definition would resolve confusion that has existed over gathering lines definition as well as identify “regulated” gathering lines. The result is intended to be a more consistent application of safety requirements, focused where they would do the most good.

¹⁸ This requirement is to be proposed by separate rulemaking.

Regulatory Flexibility Analysis

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities.

Need for the Supplemental Notice of Proposed Rulemaking: OPS' authority to issue safety standards for gas pipeline transportation is found in 49 U.S.C. 60102(a). Gas pipeline transportation includes the gathering of gas in or affecting interstate commerce. Prior to 1992, the pipeline safety law (49 U.S.C. Chapter 601) limited safety regulation of the onshore gathering of gas to gathering lines in non-rural locations. In 1992, Congress provided DOT with specific authority to define gas gathering for purposes of safety regulation, and to change the scope of regulation by defining "regulated gathering."¹⁹

The 1992 statutory change also directed OPS to consider the functional and operational characteristics of the lines in labeling them as gathering, and to consider such factors as location, length of line from the well site, operating pressure, throughput, and the composition of the gas in deciding which ones to regulate.

Description of Actions: To fulfill its statutory mandates, OPS is proposing to amend 49 CFR parts 192.1, 192.3, 192.4, 192.6, 192.7, and 192.9 to (i) revise the title, (ii) add definitions of "onshore gathering line", "potential impact circle," "potential impact radius", and "regulated onshore gathering line," and (iii) to establish safety standards for regulated onshore gathering line in the accompanying Supplemental Notice of Proposed Rulemaking (SNPRM).

Identification of potentially affected small entities: This proposed rule would affect operators of gas gathering pipelines. The proposed rule refines the definition of which gas gathering pipeline is subject to regulation and establishes a tiered regulatory structure under which regulated gas gathering lines posing less risk would be subject to only some of the requirements now applied to all regulated gathering lines.

Currently there are 400 natural gas gathering pipeline operators under OPS regulation. r. These pipeline operators are covered by North American Industry Classification System (NAICS) 486210.²⁰ In accordance with size standards published by the Small Business Administration, a business with \$6 million or less in annual revenue is considered a small entity in this NAICS code.²¹ The largest 50 firms in NAICS 486210, have combined

¹⁹See Pub. L. No. 102-508, § 109; now 49 U.S.C. 60101(a)(21) and 60101(b).

²⁰ The Economic Census does not differentiate between gathering line operators, transmission operators, or natural gas distribution system operators. Additionally not all operators have pipeline systems under OPS jurisdiction. Also, the definition of firms used in the Economic Census may be different from operators used in operational context used by OPS.

²¹ See <http://www.sba.gov/size/sizetable.pdf>.

total revenues of approximately \$20 billion (99.2% of the revenue of the NAICS) and operate 1588 establishments (93.4% of the establishments covered by the NAICS).²²

PHMSA believes that some operators of gas gathering pipelines that are not now subject to safety regulation will become so because portions of their pipeline will meet the criteria in the new definition for regulated gas gathering lines. These companies may experience added costs. The costs would depend on the risk posed by their pipelines. No more than 25 companies are expected by OPS to come under safety regulation for the first time as a result of the proposed regulatory changes.

OPS does not have any information on the new operators that will come under safety regulation for the first time. Any small entities that are affected are expected to be operators of small diameter, low pressure (Type B) lines that will be subject to a very minimal set of regulations and only for the short sections of pipeline located in close proximity to concentrations of population.

PHMSA has limited information on the number of small operators that might be impacted by the proposed regulatory change. Consequently, the following assumptions are used in this initial regulatory flexibility analysis:

- 50% of the gas gathering line operators currently under OPS safety regulation are small entities
- 100% of the gas gathering line operators that would come under OPS safety regulation as a result of the proposed regulatory change are small entities.
- Each impacted operator will have 40 miles of gas gathering pipeline that is subject to OPS safety regulation²³
- Some currently regulated gas gathering lines would no longer be subject to OPS safety regulation under the proposed regulatory change
- All regulated gas gathering lines are currently doing everything required by the proposed regulatory change and therefore would incur no additional costs as a result of the proposed change
- 25% of the gas gathering pipeline mileage that is currently subject to OPS safety regulation will be classed as Type A pipeline under the proposed regulatory changes, and 75% of the mileage will be classed as Type B
- 100% of the gas gathering pipeline mileage that will come under OPS safety regulation as a result of the proposed regulatory change will be classed as Type B

Based on these assumptions, an estimated 200 gas gathering line operators currently under OPS safety regulation are assumed to be small entities subject to the proposed regulatory change. Because they are currently doing everything required by the proposed

²² U.S. Census Bureau, "Pipeline Transportation: 2002," 2002 Economic Census, Transportation and Warehousing, Industry Series, available on the web at <http://www.census.gov/prod/ec02/ec0248i02t.pdf>.

²³ The 400 gas gathering operators have an estimated 16,000 miles of gas gathering pipeline that is currently subject to OPS safety regulation. On average, each of the 400 has approximately 40 miles of gas gathering lines subject to OPS safety jurisdiction.

regulatory change, the cost impact of that change on these 200 operators would be minimal.

Some pipeline of the 200 small operators may no longer be subject to those regulations under the proposed regulatory change. Additionally, some pipeline of the 200 small operators that is currently subject to OPS safety regulations may be classified as Type B pipeline under the proposed regulatory change, and, consequently, be required to comply with only selected Part 192 requirements. Those changes are expected by OPS to result in lowered per mile compliance costs for at least some of the 200 small operators.

The proposed regulatory changes would impose new costs on certain operators that are small entities. In addition to the estimated 200 small operators currently under OPS safety jurisdiction, at most 25 small gas gathering line operators would be brought under OPS safety regulation as a result of the proposed regulatory change. These 25 operators might incur new costs as a result of their compliance with the proposed change. The focus of the remainder of this part of the regulatory flexibility analysis will be on these 25 small operators.

The costs that might be incurred by the 25 operators are those associated with requirements relating to

- Performing population surveys
- Complying with corrosion control according to Subpart I
- Installing and maintaining line markers
- Implementing damage prevention programs
- Establishing public education programs

OPS estimates that, in the worst case, a new operator might incur a one-time cost of \$15,835 per mile²⁴ with an annual operating cost of \$1,000 per mile thereafter. Each of the 25 new operators would, therefore, in the worst case, incur a one-time cost of \$633,400 (= \$15,835 x 40 miles per operator) and an annually recurring cost of \$40,000 (= \$1000 x 40 miles per operator). Some new operators, including operators that are small entities, may already be performing various of the activities that the new regulations require. As a consequence, their costs would be lower than this. In total, in the worst case, the 25 operators, as a group, would incur \$15,835,000 (= \$633,400 x 25 operators) in one-time costs and \$1,000,000 (= \$40,000 x 25 operators) in annually recurring costs.

Only operators with gas gathering lines in Colorado, Kansas, and Oklahoma might incur costs associated with mandated damage prevention actions. Operators in all other states, including entities that are small operators, are already incurring those costs, which are estimated to be \$220 per mile per year. Consequently, small entities with no lines in

²⁴ The one-time cost per mile includes costs of population survey, cathodic protection, installation of line markers, and damage prevention.

Colorado, Kansas, and Oklahoma would, in the worst case, incur a one-time cost of \$633,400 and an annual recurring cost of \$31,200 (= \$780 x 40 miles per operator).

For most of the requirements impacting operators with pipeline newly subject to OPS regulation (population surveys, installation and maintenance of line markers, corrosion control, and public education), OPS does not have the information needed to detail the costs that would be incurred by each of the small entities. For instance, OPS does not know how many unregulated gas gathering operators that are small entities might need to perform population surveys. Consequently, OPS invites public comment on the impact of any or all anticipated costs on small entities.

Furthermore, OPS invites public comment on its estimate of the number of small entities that will be impacted by this proposed rule, the pipeline mileage operated by those small entities that will be impacted, and to the assumptions used to derive those estimates.

Reporting and recordkeeping requirements: Recordkeeping is incidental to the principal purpose of this proposed regulation. Operators will need to maintain documents verifying their compliance with applicable safety regulations. Those documents will be subject to review during PHMSA/OPS (or State) inspections.

Many operators of gathering lines are currently subject to Part 192 and will not be subject to any new recordkeeping requirements as a result of this proposed rule. In fact, their regulatory burden may be lessened, if their gathering lines pose relatively lower risks (defined as Type B under the proposed rule) and certain requirements now applicable to those pipelines become inapplicable.

OPS expects that some operators of gathering lines not now subject to Part 192 may become subject to the regulations under the proposed rule. Those operators would be responsible for new recordkeeping needed to demonstrate compliance with applicable pipeline safety regulations.

If the proposed definition of “regulated onshore gathering line” is adopted as final, some operators of gas gathering lines in rural locations could become subject to Part 192 regulations for the first time. As mentioned previously, OPS preliminarily estimates that no more than 25 operators will be newly-subject to Part 192 regulations as a result of this proposal. Those operators would be required to comply with Part 192 regulations proposed for Type A and Type B lines and with Part 199 drug and alcohol testing regulations, including associated information collection requirements.

Based on OPS’ current estimate of the paperwork burden on natural gas operators (2137-0049), the annual burden hours to comply with record keeping requirements are approximately 41.5 hours per year per operator. This would apply to both small entities and those that are not small. Much of this time would involve clerical personnel, but some involvement by managers and technical personnel would be required. The total addition to the annual burden hours for this SNPRM is 1,037.5 hours (= 41.5 hours x 25 operators).

Based on the industry-specific occupational and wage estimates provided by the U.S. Department of Labor's Bureau of Labor Statistics, the median hourly wage of an engineering manager for NAICS 486200 (Pipeline transportation of natural gas) is estimated as \$48.49.²⁵ Using an estimated fringe benefit of about 35 percent, each of the 25 new gas gathering operators would incur an additional annual recordkeeping cost of \$2,716.65 (= \$48.49 x 1.35 x 41.5 hours). The total cost recordkeeping cost for all 25 operators would be \$67,916 (= \$2,716.65 x 25) annually. OPS expects that this increase in hours and cost for newly-regulated operators would be more than offset by the reduction in paperwork burden associated with currently regulated gas gathering lines that become either unregulated or Type B lines, as described above.

Related Federal rules and regulations: With respect to the safety of the transportation of natural gas there are no related rules or regulations issued by other department or agencies of the Federal Government.

Alternate proposals for small businesses: The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes. In the case of a Congressionally-mandated definition for natural gas pipelines, it is not possible to establish exceptions or differing standards and still accomplish the objectives of Congress.

Conclusion: PHMSA does not have sufficient information at this time to conclude how many small entities will be impacted by the proposed regulatory change or whether that proposed change will have an adverse economic impact on those small entities to which it applies. PHMSA invites public comment on the assumptions and estimates appearing in this initial regulatory flexibility analysis.

²⁵ Occupational Employment Statistics, November 2003. http://bls.gov/oes/current/naics4_486200.htm
BLS uses NAICS 486200 while Economic Census and SBA use NAICS 486210 for pipeline operators.