

Small Business Economic Impact Statement (SBEIS)
Gas Company – Safety Rulemaking
Docket No. UG-011073
June 23, 2004

1. Introduction

In August 2001, the Washington Utilities and Transportation Commission (Commission) initiated a review of the rules in Chapter 480-93 WAC regarding safety of gas company operations. The Commission initiated this review in Docket No. UG-011073 pursuant to Executive Order 97-02, which requires agencies to review existing rules for readability and content with attention being paid to clarity, intent, statutory authority, need, effectiveness, efficiency, coordination, cost and fairness. Commission Staff reviewed the rules to determine whether the rules provide the results they were originally intended to achieve and whether the rules are consistent with federal and state law. Staff added new rules to provide additional pipeline safety requirements that are more stringent than federal rules contained in 49 CFR Part 192, and to clarify the Commission's policies, processes, and procedures or to provide complete information important to regulated companies.

Over the last three years, Commission Staff has held four stakeholder workshops with interested persons to discuss draft rule language, receive comments, and explore options. Staff has prepared three sets of draft rules and submitted them to stakeholders for comment. Staff believes that the draft rules are now sufficiently developed to recommend that the Commission publish them as proposed rules, and proceed to the next phase of the rulemaking. When issuing a notice of proposed rules, agencies must provide a copy of the small business economic impact statement (SBEIS) prepared under Chapter 19.85 RCW, or explain why a SBEIS was not prepared. *RCW 34.05.320(1)(k)*.

2. SBEIS Requirements

The Regulatory Fairness Act, codified in Chapter 19.85 RCW, provides that an agency must conduct a SBEIS "if the proposed rule will impose more than minor costs on businesses in an industry." *RCW 19.85.030*. A SBEIS is intended to assist agencies in evaluating any disproportionate impacts of the rulemaking on small businesses. A business is categorized as "small" under the Regulatory Fairness Act if the business employs 50 or fewer employees.

Under RCW 19.85.040(1), agencies must determine whether there is a disproportionate impact on small businesses in the industry, and under RCW 19.85.030(2), consider means to minimize the costs imposed on small businesses. In determining whether there is a disproportionate impact on small businesses, agencies must compare the cost of compliance for small businesses with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the rule using either the cost per employee, the cost per hour of labor, or the cost per \$100 of sales revenue, as a basis for comparing costs. *See RCW 19.85.040(1).*

3. SBEIS Evaluation Procedure

Staff determined that it was necessary to prepare a SBEIS for gas safety rules in Docket No. UG-011073 as the proposed rules may impose more than minor costs on pipeline companies operating in Washington State. With the last set of draft rules, the Commission mailed a notice to the fifteen natural gas companies under Commission jurisdiction for pipeline safety, as well as other stakeholders, providing an opportunity to respond to a Small Business Economic Impact Statement (SBEIS) Questionnaire. This notice requested that the affected companies provide information concerning the cost impact of draft rules developed by Commission Staff for Chapter 480-93 WAC, and to provide specific information for each draft rule that the company identifies as causing an impact. Staff received completed surveys in this Docket from two natural gas companies and one direct sales company: Puget Sound Energy (PSE), Cascade Natural Gas (CNG), and Camas Mill (Georgia Pacific).

None of the pipeline companies regulated by the Commission, including the three companies that responded to the questionnaire, however, are small businesses: Staff has determined that none of the pipeline companies regulated by the Commission for safety are categorized as “small” businesses as defined by the Regulatory Fairness Act. Large companies do not have great incentive to respond to the survey or to provide detailed information, because the Commission is only required to mitigate the economic impacts of the proposed rules on small businesses. In addition, because the Commission regulates pipeline companies for safety under Chapter 480-93 WAC, and does not regulate the companies’ rates, there are no requirements that pipeline companies submit any financial data to the Commission.

To conduct a SBEIS pursuant to the Regulatory Fairness Act, the Commission must either determine the cost per employee, the cost per hour of labor or the cost per \$100 of sales revenue. As discussed above, this information is not known or required to be submitted to the Commission under Chapter 480-93 WAC. The results of this survey, therefore, should be interpreted with an understanding that the study is based upon limited, and in some cases unverifiable, quantitative data.

The Staff conducted its analysis by considering the purpose of the rule, the reason for the new rule or change to the rule, and the cost of compliance asserted by the company. Staff then evaluated whether the cost alleged was reasonable or already a cost of compliance, and in weighing all the information, determined if any mitigation of the requirements of the draft rule were appropriate. Although the Commission is not required by RCW 19.85.030 to mitigate the impact of the rule on large businesses, Staff has evaluated the cost of compliance with the draft rules and whether to mitigate the impact of the rules on the fifteen natural gas companies under Commission jurisdiction for pipeline safety in order to ensure that the effect of the rulemaking is fair and does not impose undue financial burden on the affected companies.

4. Compliance Requirements of the Draft Proposed Rules

The proposed rules clarify existing State rules and definitions, and add additional safety requirements to certain Federal rules adopted by reference. Specifically, the proposed rules will require gas pipeline companies to:

- perform monthly odorization tests;
- calibrate and maintain all equipment when feasible;
- comply with welding procedures qualified to API standards;
- require welders be qualified every six months;
- maintain a detailed written emergency valve maintenance program; and
- require service valves on churches, schools, hospitals and commercial businesses.

When corrosion is detected on a pipeline, a company must take remedial action within 90 days and take corrosion protection reads on all steel pipe when it is exposed. The rules require companies to install pipeline markers on all railroad crossings, river crossings, creeks, and survey the markers every three years, and

maintain the records for ten years. The proposed rules include a new rule for the protection of plastic pipe requiring companies to monitor all above ground installations. In addition, the proposed rules include additional reporting requirements that require companies to report more severe incidents within two hours of discovery and other types of incidents within six to twenty-four hours. The incident reporting requirements will provide data to enable the Commission to compile statistics on incidents.

5. Results of the Analysis

Of the fifteen natural gas pipeline companies regulated by the Commission, two local distribution companies (“LDCs”) and one direct sales company responded to the survey. These companies identified costs associated with ten of the draft rules. These rules and the specific cost impacts identified by the companies are discussed and evaluated in detail below. The companies’ responses indicate that the cost of compliance with most of the draft rules appears to be reasonable. The only exception is the estimated cost to comply with the proposed revisions to WAC 480-93-100, which addresses the maintenance of valves. One company estimates the cost of compliance to be very high.

The three responding companies identified compliance costs associated with the following draft rules:

480-93-015 - Odorization of Gas

The proposed rule requires that all gas must be odorized once each month. The proposed requirement will assist companies in verifying the odorant level in gas and determining whether a pipeline is leaking. The existing state rule and current federal rules require odorization to be conducted periodically. In addition, the proposed rule requires odorant testing equipment be calibrated in accordance with the manufacturer’s recommendations. Where there is no recommended interval, calibration must be performed at least annually.

Camas Mill (Georgia Pacific) Estimated that the cost to comply with the draft rules would be approximately \$1800 per year, as it will increase the number of tests from six to twelve per year.

Discussion: The estimated cost of \$1,800 per year to comply with the new requirements of the rule would establish a cost of \$300 per test. Staff believes the cost of \$300 per test to be high. Consistent levels of odorization allow the public or company personnel to detect leaks.

The requirement to “sniff test” once each month will create consistency among companies. Currently companies are testing, on many different timeframes, *e.g.*, bi-monthly, every six months, and yearly. In addition, most LDC’s are already testing on a monthly basis.

480-93-080 Welder and plastic identification and qualification certificates

The proposed rule requires that all CFR Appendix C welders be re-qualified once every six months as opposed to yearly, and requires an annual re-qualification test for plastic joiners. Commission inspection records have shown that welders have a higher fail rate when they are qualified only on a yearly basis. The proposed test frequency of every six months will be more consistent with industry welder qualification requirements such as American Society Mechanical Engineers (ASME), Section 9 and American Petroleum Institute (API) 1104, which are referenced in the federal rules. The rule also disallows Appendix C welders from welding high pressure, large diameter pipelines.

Camas Mill (Georgia Pacific) The company responded that the effect of the proposed rule is that welders must physically carry identification cards and may not rely on certificates that are most times filed in the office. The company estimates an annual compliance cost of **\$100**.

PSE The company reports that the draft proposed rule will require PSE to re-qualify 19 fitters on a semi-annual basis as opposed to annually, and estimates an annual compliance cost of **\$4,275**.

Discussion: Staff believes that the estimated cost for each company to comply is reasonable. The current rule requires welders to carry certification certificates, which are the same as identification cards required in the proposed rule. The proposed rule will provide an inspector the opportunity to verify on site that a welder is qualified to perform the welding he is doing. The proposed rule also

adopts industry standards for welding qualifications, standards that staff believes will increase the safety and reliability of pipelines in the state.

480-93-100 Valves

The proposed rule requires operators to develop and maintain a detailed written maintenance program that outlines how emergency valves required by CFR Parts 192.747 and 192.745 will be selected and maintained. It also requires that valves be installed on services lines to churches, schools, hospitals and commercial buildings within business districts and that they be maintained and operated annually.

Camas Mill (Georgia Pacific) Camas Mill stated that they will have to rewrite the company's manual for its already-defined valve maintenance program. The proposed rule will require the company to rewrite the portion of the manual relating to operations and maintenance. The company estimates an additional expense of **\$1,600** to complete the project. Camas Mill did not identify any additional annual cost of compliance.

CNG The company identified additional costs for its valve maintenance program. CNG has estimated that the proposed rule will increase its current valve maintenance program to include 21,000 new valves, and estimates that the annual cost of compliance of the draft rule will be **\$567,000**.

PSE The company states that the proposed rule will increase valve installation and maintenance by an estimated 32,000 valves per year, and estimates the annual cost of compliance will be **\$2,736,000**.

Discussion:

In past inspections, Staff has reviewed records indicating that, in many cases, it has taken emergency responders and company personnel longer than necessary (more than 1-2 hours) to shut off the flow of gas in an emergency situation because valves were not accessible either because they have been paved over or their location is not readily marked. This has posed an increased risk to the general public due to the lengthened time of escaping gas in emergencies. Operators generally rely on valves as their first means of shutting down

pipelines in emergency situations. Operators install many valves in their systems but only select a small number and designate them as emergency valves. Unless valves are designated as emergency valves they usually are not maintained.

Many fire departments carry valve keys that allow them to shut off the flow of gas to services in emergency situations. Operators in many cases provide training and equipment to local fire departments on how to respond to natural gas emergencies and shut down services. A new definition in proposed rule WAC 480-93-005 for "Business District" affects the valve rule since more areas will be designated as business districts and valves will now be required on commercial services within these areas. The cost of compliance with WAC 480-93-100 will not be known until after the rule is adopted and companies evaluate the actual number of valves affected by the rule. Given the potential compliance cost to the companies, Staff believes it is appropriate to phase-in the rule over a three-year period. The proposed rule has been modified to provide for a three-year delay in the effective date.

480-93-110 Corrosion control

The proposed rule requires companies to maintain detailed written cathodic protection (CP) procedures. It also clarifies the existing rules, both state and federal, by detailing the requirements more clearly and by adding remedial action timeframes. The proposed rule also requires that a company have a written internal CP program that includes monitoring. In addition, the proposed rule requires that a CP test read be taken when steel pipe is exposed , and requires calibration of instruments used in CP.

Camas Mill (Georgia Pacific) The company asserts that the cost of calibrating a multimeter, the instrument used to test for corrosion control, would be \$110 per unit. The company argues that the calibration cost is more than 50 percent of the replacement cost and that multimeters would be replaced annually rather than calibrated. The company estimates the annual cost of compliance to be \$376.

CNG The company currently conducts leak surveys every 90 days. If they choose to survey for leaks every six months as required by the proposed rule, the company will incur a savings of \$4,050 per year.

CNG and PSE The proposed rule requires companies to take cathodic protection readings whenever the coating is removed from an existing underground pipe. CNG reports an annual compliance cost of **\$20,000** and PSE estimates an annual compliance cost of **\$11,800**.

Discussion:

The changes to the proposed rule are intended to clarify the current state and federal CP rules. There appears to be confusion among operators on how to interpret certain existing rules. Staff has therefore, attempted to re-write the existing rules and clarify them in the process. Lack of adequate CP was for many years the leading cause of leaks among pipeline companies. It is now the second leading cause of leaks. Proper interpretation and implementation of a CP program will ensure that pipelines are at a minimal risk for corrosion and leakage.

The requirement that a CP read be taken each time steel pipe is exposed is to determine whether there are adequate levels of CP without waiting up to a year in between the currently required annual tests.

The requirement for a written internal CP program is based on the New Mexico incident that resulted in numerous deaths. The cause was determined to be internal corrosion. While LDCs generally do not have internal corrosion problems, Staff believes companies should still monitor for it.

Instruments should be calibrated according to the manufacturer's recommendations to ensure that tests are performed accurately. Remedial action timeframes are necessary due to the inconsistency among operators for remedial action. Some operators complete it immediately and others take over a year or more.

480-93-124 Pipeline markers

The proposed rule requires companies to place markers on all mains above 250 psig, and at river crossings, creeks and railroad crossings. When a marker is discovered missing the marker must be replaced within 45 days of discovery. Companies must survey the markers every five years, and maintain the documentation on its surveys for 10 years. In addition, companies must maintain records that identify class locations and where markers are required.

Camas Mill (Georgia Pacific) The company states that the proposed rule will require that they identify on their maps the class location of their pipelines and will further require a revision to its manual and compliance tracking software, additional surveys, and map conversion. Camas Mill estimates a compliance cost of **\$7,800**.

PSE The company estimates that they will need to add 380 markers on railroad crossings. The estimated cost to add markers to the railroad crossings represents a one-time cost of **\$5,000** and an annual compliance cost of **\$36,800**.

Discussion: Staff believes that the estimated cost to comply is reasonable given the importance of properly marking pipelines. The requirement will make excavators aware that there is a pipeline facility in the vicinity of where digging will take place. If markers are not present, an excavator may not be aware of the pipeline and the line may be hit and damaged. The damage can be costly to repair. In addition, identifying class locations on a company's maps is to determine where markers are required and verify compliance during field inspections.

480-93-140 Service regulators

The proposed rule requires companies to follow the manufacturers' recommended installation and maintenance practices to insure the proper and safe operation of service regulators. The prescriptive tests required in the proposed rule are recognized as standard industry practices. In addition, verifying the set points at the initial turn-on performs a quality control check that will ensure that the gas company is delivering the correct amount of gas to a customer.

PSE The proposed rule requires companies to verify set points at initial turn-ons. PSE estimates that the annual compliance cost will be **\$718,300**, and that the company will incur a one-time compliance cost of **\$5,000**.

Discussion: The proposed rule requires a company to follow federal and state rules governing service regulators as well as the manufacturer's recommended installation and maintenance procedures. The rule is prescriptive, identifies these practices as industry standards, and provides for the elimination of potential over-pressure of a fuel line that leads into residential homes, the elimination of leaks, and other potential hazards.

Based upon information inspectors have collected during inspections, Staff believes that PSE has not been verifying set points at initial turn-ons, a practice included in the manufacturer's recommended installation procedures. While Staff cannot verify PSE's estimated compliance costs, Staff believes that PSE should have already been verifying set points as do all LDCs.

480-93-178 Protection of plastic pipe

The proposed rule requires companies to monitor aboveground temporary installations of plastic pipe. It also adds requirements to keep pipe separated from other utilities when buried, requires a weak-link when pulling pipe so it isn't damaged, and has a maximum ultraviolet light exposure limit.

PSE PSE states that the proposed new rule will require that the company establish a monitoring program for above-ground installation of plastic pipe. The company estimates a one-time compliance cost of **\$5,000** and an annual compliance cost of **\$2,500**.

Discussion: Staff believes that PSE's estimated cost of compliance is very reasonable. Monitoring above-ground installation will ensure that pipe installed above ground is monitored similarly to pipe installed in the ground. This will ensure the integrity of the pipeline, and protect against any leaks or incidents.

480-93-186 Leakage classifications and action criteria

The proposed rule requires companies to repair a leak when the leak has been graded as a grade one or a grade two leak. Current company practices are to fix a leak by sucking the gas out of the ground and taking a new read, which at that time identifies the leak as fixed. The leak is then regraded as a grade three leak. This practice prevents leaks from being permanently fixed. The proposed rule will allow a company to downgrade a leak only once, then require that the leak be repaired. The proposed rule also requires companies to conduct follow-up inspections for all leaks with residual gas.

PSE PSE states that the proposed rule allows for a leak to be downgraded only once, requiring it to repair an additional 78 leaks per year. The company estimates an annual compliance cost of **\$163,500**.

Discussion: The rule revisions will require companies to fix leaks and not regrade leaks numerous times. Staff strongly believes that if a leak has been regraded and the same leak is found at a more severe grade than when left, the leak must be repaired. This practice provides additional pipeline safety.

480-93-188 Gas leak surveys

The proposed rule specifies that companies must follow the manufacturer's recommendation for calibration, and if an instrument does not have a manufacturer's recommendation for calibration, then it must be calibrated once each month.

Camas Mill (Georgia Pacific) The company states that if their equipment does not have a manufacturer's recommendation for calibration, they send it out to be calibrated. Because of the cost of recalibration, the proposed requirement will require Camas to purchase a second instrument instead of recalibration. The company estimates an annual cost of compliance with this requirement of **\$1,800**.

Discussion: The rule does not require a company to send their equipment to the manufacturer for calibration. They must first follow the manufacturer's recommendation if there is one. If there is no manufacturer's recommendation they will need to calibrate. This does not require a company to send the

equipment off-site. Staff disagrees with the need to purchase a second instrument and the company's estimated cost of compliance.

480-93-200 Reports associated with operator facilities and operations

The proposed rule incorporates current rule WAC 480-93-190. The proposed rule has been drafted to improve clarity and consistency with federal regulations. The proposed rule requires that drug and alcohol forms be submitted to the Commission, changes the telephonic incident reporting requirement for more serious incidents from six to two hours and reporting for other reportable incidents from six to twenty-four hours and requires companies to submit daily reports of construction and repair activities. In addition, the proposed rule requirements will allow the Commission to better track statistics on incidents.

CNG The company states that the proposed requirement to notify the Commission when an evacuation takes place in a dwelling, building, or area of public assembly, will impose an annual compliance cost of **\$1,800**.

CNG objects to daily reports to the Commission concerning construction activities, arguing that existing rules do not require such reporting. CNG estimates this requirement will create an additional annual compliance cost of **\$22,500**.

Discussion: The requirement to notify the Commission of an evacuation in relation to a pipeline incident allows the Commission to respond to media or public inquiries, and allows the Commission to keep statistics applicable to such incidents. The proposed cost of compliance is reasonable. Staff disagrees with CNG's estimated annual compliance cost. Companies should incur no additional compliance costs for such reporting, as all LDCs have voluntarily provided daily construction activity reports for the past few years.

6. Proposed Rules that may create cost savings

Staff believes that three of the proposed rules will provide cost savings to companies. In CNG's reply to the SBEIS they identified some cost savings with the proposed rule change to WAC 480-93-110 addressing leak surveys of shorted casings. The current rule requires leak surveys to be performed every 90 days,

while the proposed rule requires such surveys to be performed every six months. Other companies should also realize cost savings under this proposed rule.

The second rule that Staff believes will provide cost savings to companies is the change in the definition of “transmission” in WAC 480-93-005. The proposed definition will reduce the number of pipelines defined as transmission lines and will result in fewer pipelines having to meet the more stringent transmission operations, maintenance, and construction requirements in the Chapter.

The third rule that Staff believes will provide a cost savings is WAC 480-93-175, which addresses the moving and lowering of metallic pipeline. The proposed rule should reduce the amount of short steel replacements that are required due to other utility construction conflicts. The majority of all steel replaced for this reason is 2” diameter pipeline, which would be exempt from the required study of the steel toughness under the proposed rule.

7. Summary of Findings

The proposed rule changes provide additional pipeline safety and will provide assurances that companies are maintaining pipelines as safely as possible. Requiring companies to odorize gas on a monthly basis, take remedial action when corrosion is found on a pipeline, identify and maintain emergency valves, have qualified welders, verify that set points are set properly before a customer begins receiving gas, and repair leaks permanently as opposed to regrading them on a continual basis will improve safety on gas pipelines in the State. The estimated cost to comply with the proposed rules appears to be reasonable and does not appear to be significant, except for the proposed valve rule requirements. As stated in the analysis above, the true cost of compliance with that proposed rule will not be known until companies evaluate their pipeline facilities and determine which valves are within business districts.

8. Mitigation

Changes to the definition of “Business District” in WAC 480-93-005 and the valve rule, WAC 480-93-100, have the potential to cause significant compliance costs for gas pipeline companies. As described above, Staff believes that the changes in these rules are necessary to address concerns over how pipeline companies

identify and maintain valves necessary to shut off gas in an emergency. In order to address the significant impact of the proposed rule, Staff proposes to mitigate the cost impact by delaying the effective date of the rule for three years to allow companies to conduct the necessary surveys and studies to implement the proposed rule.

9. Conclusion

Chapter 19.85 RCW requires that a SBEIS be prepared to assess whether the proposed rules impose more than minor costs on businesses in an industry, in this case, gas pipeline companies. Staff mailed surveys designed to obtain information about the cost of compliance with the draft proposed rules to all fifteen natural gas pipeline companies regulated by the Commission. Staff received responses from only three companies.

Staff has reviewed the cost data submitted by the three companies and found the cost of compliance not to be significant except for cost estimates submitted by one of the companies associated with the proposed revisions to WAC 480-93-100.

Based on an analysis of the cost impacts of the proposed rules on gas pipeline companies, Staff concludes that:

- 1) Pipeline companies will incur costs to comply with some of the proposed rules, in some cases costs that are more than minor, and may reduce the costs of complying with other rules;
- 2) No small businesses are affected by the proposed rules;
- 3) The changes in the rules are expected to provide additional safety to pipelines operating within the Commission's jurisdiction;
- 4) Although it was not possible to directly compare the costs and benefits of implementing the proposed rules, Staff believes that, on balance, the benefits of implementing the proposed rules relating to pipeline safety are at least equal to the costs of compliance; and
- 5) Staff proposes to mitigate the cost impact of the proposed requirements in WAC 480-93-100 concerning valves by delaying the effective date of the rule by three years to allow companies time to conduct surveys and studies and to a study to implement the proposed rule.