

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

IN THE MATTER OF THE APPLICATION)	Docket No.
OF ATMOS ENERGY CORPORATION)	
FOR REVIEW AND ADJUSTMENT OF ITS)	
NATURAL GAS RATES)	23-ATMG- <u>359</u> -RTS

DIRECT TESTIMONY OF JOHN M. WILLIS

SEPTEMBER 9, 2022

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is John M. Willis. My business address is 1555 Blake Street, Suite 400, Denver, Colorado 80202

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL BACKGROUND.

A. I earned a Bachelor of Science degree in Mechanical Engineering from Oklahoma State University in 1988. I am a Professional Engineer registered in the states of Oklahoma and Texas. I began my career in the gas utility business with Southern Union Gas Company in Austin, Texas. My first position was as a Gas Measurement Analyst. I have held various engineering and operations positions throughout my career. I began working for Atmos Energy in 1994 as an Engineering Manager in the Corporate Office in Dallas. I then spent nine years as an Engineering Manager in the Kentucky Division. I was promoted to my current position, Vice President of Technical Services for the Colorado and Kansas Division in 2005.

Q. WHAT ARE YOUR DUTIES IN YOUR CURRENT ROLE?

A. I am responsible for and have oversight of Information Technology, Safety, Compliance and Engineering for the Colorado-Kansas Division. My duties include providing technical advice and direction to our operations. I am also the designated sponsor of the corporate committee responsible for maintaining the Company's various procedures and manuals, including the operations & maintenance plan, construction procedures, service procedures, measurement procedures, procurement manual, safety manual and the environment manual. I am responsible

1 for overseeing the compliance operations of Atmos Energy’s Kansas and Colorado
2 natural gas distribution business. It is my responsibility to ensure that Atmos
3 Energy’s pipes, regulators, and other facilities in Kansas and Colorado are kept in
4 good working order to enable the Company to continue to provide safe and reliable
5 service to our customers throughout our authorized service territory.

6 **Q. HAVE YOU EVER SUBMITTED TESTIMONY BEFORE THE KANSAS**
7 **CORPORATION COMMISSION (“COMMISSION”)?**

8 A. Although I have participated in several pipeline safety dockets, this is the first
9 opportunity I have had to submit testimony to the Commission.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
11 **PROCEEDING?**

12 A. The purpose of my testimony in this proceeding is to provide a description of our
13 system in Kansas and Atmos Energy’s approach to pipeline safety and system
14 integrity investment. I also provide an overview of the pipeline safety regulatory
15 framework and how that informs and guides our approach. I will describe our
16 current System Integrity Program (“SIP”) approved by the Commission in our 2019
17 general rate case and the progress made through that program thus far. I will also
18 outline the changes to the SIP proposed in this filing and why those changes are in
19 the public interest.

20 **II. PIPELINE SAFETY REGULATORY FRAMEWORK**

21 **Q. IN YOUR POSITION, ARE YOU FAMILIAR WITH FEDERAL AND**
22 **STATE REGULATIONS REGARDING PIPELINE SAFETY AND**
23 **INTEGRITY?**

1 A. Yes.

2 **Q. IS ATMOS ENERGY SUBJECT TO THE RULES OF THE PIPELINE AND**
3 **HAZARDOUS MATERIALS SAFETY ADMINISTRATION (“PHMSA”)**
4 **AND REGULATIONS REGARDING GAS DISTRIBUTION PIPELINE**
5 **SAFETY?**

6 A. Yes. Atmos Energy is subject to the PHMSA rules and regulations as those are
7 promulgated by the U.S. Department of Transportation (“DOT”) and adopted by
8 the Commission for Kansas natural gas local distribution companies, as well as the
9 state-specific pipeline safety rules promulgated by the Commission.

10 **Q. DO PIPELINE SAFETY REGULATIONS SPECIFY THE FULL EXTENT**
11 **OF ACTIONS A PRUDENT OPERATOR IS EXPECTED TO UTILIZE**
12 **WHEN OPERATING THEIR SYSTEM?**

13 A. No. A major challenge of developing uniform ways to address safety of natural gas
14 pipelines is that the majority of this critical infrastructure is underground, making
15 threats not easily observable or known. As a result, it is impossible for regulations
16 in this area to be completely prescriptive. The pipeline safety regulations, or code
17 (including the federal code and complementary codes adopted by the states), must
18 therefore provide the minimum that should be done to construct, operate, and
19 maintain a natural gas system, which serves as a framework in which operators
20 must use their discretion to implement those standards in a manner that maximizes
21 safety on its system given the constraints inherent in the process. Because of this,
22 though an operator may not be able to point to a specific regulatory requirement to
23 complete a project, it is still an operator’s job to identify projects that will

1 potentially address the highest relative risks and work with state regulators to strike
2 a balance of the appropriate pace of undertaking those investments.

3 **Q. PLEASE PROVIDE AN EXAMPLE OF HOW PHMSA REGULATIONS**
4 **DIRECT OPERATORS TO USE THEIR DISCRETION IN MAKING**
5 **SAFETY DECISIONS.**

6 A. An illustrative example is 49 C.F.R. Part 192 subpart P, “Gas Distribution Pipeline
7 Integrity Management.” Each operator is required to develop and implement its
8 own unique Distribution Integrity Management Plan (“DIMP”) to mitigate risks on
9 its system. While this subpart sets up a framework of general requirements, it
10 leaves to the operator the duty of designing its own plan that is specific to its system
11 that will calculate and address risk. For example, Part 192.1007(c) requires the
12 operator to evaluate and rank risk: “An operator must evaluate the risks associated
13 with its distribution pipeline. In this evaluation, the operator must determine the
14 relative importance of each threat and estimate and rank the risks posed to its
15 pipeline. This evaluation must consider each applicable current and potential threat,
16 the likelihood of failure associated with each threat, and the potential consequences
17 of such a failure.” In this way, the regulation leaves to the operator the decisions
18 of the factors and methodology that should be used to identify and address risk and
19 the pace at which such identified risks should be addressed.

20 **Q. PLEASE FURTHER DESCRIBE THE DIM PROGRAM.**

21 A. The Distribution Integrity Management Program specifies how the utility will
22 identify, assess, prioritize, and evaluate risks to the integrity of distribution lines
23 and the manner in which those risks will be mitigated or eliminated.

1 Per Department of Transportation (“DOT”) Part 192 Subpart P regulations, every
2 distribution operator is required to have a Distribution Integrity Management
3 Program (DIMP) plan in place. The seven key elements of a DIMP plan are:

- 4 1. Knowledge of distribution system
- 5 2. Identify threats
- 6 3. Evaluate relative risk
- 7 4. Identify and implement measures to reduce risk
- 8 5. Measure performance, monitor results, and evaluate effectiveness
- 9 6. Periodic evaluation and improvement
- 10 7. Report results

11 Through the DIM process, assets on the Kansas system have been identified as
12 relatively high risk and sequenced for replacement, including bare steel, low
13 pressure, and Aldyl-A assets.

14 **Q. WHEN THE PHMSA PIPELINE SAFETY RULEMAKING PROCESS WAS**
15 **INITIATED, DID IT PROVIDE ANY INSIGHT INTO THE STATES’**
16 **ROLES IN DISTRIBUTION PIPELINE SAFETY MEASURES?**

17 A. Yes. PHMSA emphasized the importance of oversight performed directly by the
18 States. PHMSA stated specifically:

19 States must implement the minimum standards established by
20 PHMSA but have a variety of ways in which they can oversee
21 distribution pipeline safety. They can simply mirror the Federal
22 pipeline safety program; they can impose additional requirements,
23 beyond the Federal minimum; they can engage in special oversight
24 programs with individual operators or groups of operators; or
25 finally, they can provide incentives for safety improvements, often
26 through their rate-setting authority. (emphasis added)

27 It is appropriate that the principal actions for regulating distribution
28 pipeline safety rest with the States. States need to balance safety

1 and affordability. They need to ensure that the particular needs of
2 their citizenry are fulfilled....¹

3 **Q. HAVE THE FEDERAL AND STATE PIPELINE SAFETY CHANGES**
4 **DISCUSSED PREVIOUSLY IMPACTED THE WAY THAT NATURAL**
5 **GAS COMPANIES MONITOR AND MANAGE THE SAFETY OF THEIR**
6 **DISTRIBUTION SYSTEMS?**

7 A. Absolutely. The federal changes and the Call to Action² have resulted in an
8 increasingly proactive approach to pipeline safety.

9 **Q. HOW HAVE THE CHANGES AND CALL TO ACTION IMPACTED**
10 **ATMOS ENERGY?**

11 A. Atmos Energy is also implementing a more proactive approach to pipeline safety.
12 Atmos Energy's intention is not only to repair identified leaks but also to
13 proactively identify pipes where the risks of leaks or failure are more prevalent and
14 to then design and implement a plan to mitigate those risks. As a result, Atmos
15 Energy is investing capital into our system at a much higher annual rate than we
16 have historically done to address safety and integrity issues identified through the
17 risk assessment process.

18 **Q. HAVE THERE BEEN CHANGES TO PIPELINE SAFETY LAWS AND**
19 **REGULATIONS SINCE ATMOS ENERGY'S LAST RATE CASE THAT**
20 **SUPPORT ATMOS ENERGY'S COMMITMENT TO AND PLANS FOR**
21 **PIPELINE REPLACEMENT?**

22 A. Yes. In 2016 PHMSA published a Notice of Proposed Rulemaking ("NPRM") in

¹ Notice of Proposed Rulemaking, 73 Fed. Reg. 36015 at 36017.

² PHMSA Call to Action Letter to National Association of Regulatory Utility Commissioners, Dec. 19, 2011, <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/PHMSA%20111011-002%20NARUC.pdf>.

1 response to the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011
2 and related federal mandates and recommendations. The proposed rules in this
3 NPRM have been collectively termed the “Mega Rule.” On October 1, 2019,
4 PHMSA submitted three major rules to the federal register focused on pipeline
5 safety. Included was the first of three parts of the Mega Rule that focuses on the
6 safety of gas transmission pipelines. The gas transmission rule requires operators
7 of gas transmission pipelines constructed before 1970 to determine the material
8 strength of their lines by reconfirming the Maximum Allowable Operating Pressure
9 (“MAOP”). In addition, the rule updates reporting and records retention standards
10 for gas transmission pipelines. Part 2 of the Mega Rule contains new repair
11 requirements for High Consequence Areas (“HCAs”) and non-HCAs, as well as
12 requirements regarding inspections after extreme weather events and natural
13 disasters. On August 24, 2022, PHMSA published in the Federal Register Part 3
14 of the original 2016 rulemaking. Among other provisions, this rule contains
15 additional risk modeling and risk assessment requirements to transmission lines,
16 with an effective date of May 24, 2023.

17 In addition, on December 27, 2020, Congress signed into effect the
18 Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020
19 (“PIPES Act of 2020”), which outlines provisions intended to continue to enhance
20 safety, increase transparency, and refine the existing rulemaking process. One
21 provision was a directive for natural gas operators to, within one year, evaluate their
22 existing plans and take into consideration measures which would contribute to
23 public safety and protect the environment. In advisory bulletin ADB-2021-01 dated

1 June 4, 2021, PHMSA outlined its intention to begin performing inspections in
2 2022 on the adequacy of operators updated plans to meet the intent of Section 114
3 of the PIPES Act of 2020, including the requirement that “**Operators must also**
4 **revise their plans to address the replacement or remediation of pipeline**
5 **facilities that are known to leak based on their material, design, or past**
6 **operating and maintenance history.”**³ Advisory Bulletin ADB-2021-01 is
7 attached to my direct testimony as Exhibit JMW-1.

8 This requirement reinforces Atmos Energy’s proactive assessment of assets
9 such as bare steel, low-pressure systems, and Aldyl-A and the need to support the
10 accelerated replacement of those assets.

11 **III. ATMOS ENERGY’S KANSAS SYSTEM AND REPLACEMENT**
12 **PROGRAMS**

13 **Q. COULD YOU PLEASE DESCRIBE THE IMPORTANCE OF SAFETY TO**
14 **ATMOS ENERGY IN THE OPERATION OF ITS KANSAS**
15 **DISTRIBUTION SYSTEM?**

16 A. The safety of Atmos Energy’s customers, community and employees is Atmos
17 Energy’s highest priority in every jurisdiction in which it operates. Pipeline safety
18 is an integral element of that mission. From the Company’s perspective, there is no
19 higher priority in our operations than safety. The SIP mechanism approved by the
20 Commission in Docket 19-ATMG-525-RTS was designed to serve that priority and
21 enhance our ability to provide safe and reliable natural gas service to the public.

³ <https://public-inspection.federalregister.gov/2021-12155.pdf>

1 **Q. PLEASE DESCRIBE THE PROGRAMMATIC SPENDING THAT ATMOS**
2 **ENERGY HAS UNDERTAKEN TO ADDRESS PIPELINE**
3 **REPLACEMENT.**

4 A. The Kansas Legislature created the Gas Safety and Reliability Policy Act of 2006
5 (the “Act”) to underscore the importance of investment in the natural gas
6 distribution infrastructure. Through the GSRS, since 2008 the Act enabled us to
7 undertake a limited amount of system integrity investments to address risk on our
8 system and continue compliance with federal and state safety standards, subject to
9 a rate cap of \$0.40 annually on the average monthly residential bill. In 2018, the
10 Legislature amended the Act to expand the definition of qualifying investments and
11 to increase the cap to \$0.80. The GSRS also defines and limits the types of projects
12 that can be recovered through this program.

13 In its Order in the 2019 rate case, the Commission stated that it “recognizes
14 the urgent need to replace obsolete pipes” and provided the parameters under which
15 Atmos Energy should collaborate with CURB and the Staff to finalize a SIP tariff
16 that met the conditions of the Order. Ultimately, Staff, CURB, and Atmos Energy
17 agreed to a SIP mechanism that featured a five-year pilot program with an expected
18 investment of \$35 million over the five years. On July 1, 2020, Atmos Energy filed
19 its five-year general plan of projects intended to be completed under the SIP, as
20 well as detail on the projects to be included in the first year of the program. Since
21 that initial filing, Atmos Energy has made two additional SIP plan filings detailing
22 the projects in the second and third years of the program.

1 **Q. HAS THE SIP MECHANISM WORKED WELL THUS FAR?**

2 A. Yes. The Staff supported and the Commission approved the proposed plan for
3 Years 1 and 2, noting that Staff supports Atmos Energy’s “focused approach to
4 concentrate its SIP on bare steel piping associated with low pressure distribution
5 systems” and “believes the Approach Atmos is using to evaluating the systems most
6 at risk is appropriate.” The plan for Year 3 was filed on August 1, 2022, and is
7 currently pending before the Commission.

8 In the first year of the program, Atmos Energy completed the three
9 replacement projects of low-pressure systems identified through our risk ranking
10 process and replaced over eight miles of bare steel main and polyethylene. We are
11 currently completing the two replacement projects of low-pressure systems planned
12 for the second full year of the program, which will total approximately 8.2 miles of
13 bare steel main and polyethylene. The projects planned for the third year of the
14 program have been submitted to the Commission, and we are currently engaged in
15 the discovery process related to those four projects. This safety-related investment
16 is in addition to the mileage replaced through the GSRS program, as well as non-
17 programmatic capital investment that we are seeking recovery through base rates.

18 **Q. PLEASE DESCRIBE THE CURRENT COMPOSITION OF ATMOS**
19 **ENERGY’S SYSTEM IN KANSAS.**

20 A. The DOT uses the following categories to classify main and service line materials:
21 steel, ductile iron, copper/wrought iron, plastic PVC, plastic polyethylene (“PE”),
22 plastic ABS⁴, plastic other and other. Steel pipe has been used in the natural gas

⁴ Acrylonitrile butadiene styrene.

1 industry since the 1800s and the use of plastic pipes began in the 1960s. As
2 improved materials are developed, older materials are discontinued or phased out
3 by the industry. As a result, the Company has many miles of pipe in our distribution
4 system in Kansas that are made of materials that are no longer used by Atmos
5 Energy in new natural gas pipeline construction.

6 Steel pipe is categorized as bare steel or coated steel. In addition, each of
7 those categories can be further broken down as cathodically protected or
8 unprotected. The gas industry installed bare steel pipe until the mid-1950s. As
9 technology advanced, the gas industry began to use cathodically protected steel
10 pipe, and since 1970, cathodically protected coated steel pipe is the only steel
11 material approved for the new installations by the DOT.⁵ All of the bare steel pipe
12 in Atmos Energy's Kansas system was installed before Atmos Energy acquired
13 those systems from Greeley Gas Company ("Greeley Gas") in 1993 and United
14 Cities Gas Company ("United Cities") in 1997. Bare steel pipe is the oldest pipe in
15 Atmos Energy's Kansas system. Based on current inventories, there are
16 approximately 1,317 total miles of bare steel mains in Atmos Energy's Kansas
17 system. Of these, 582 miles are located in class 3 areas, which is significant in how
18 projects are identified for inclusion in the SIP. In addition, there are approximately
19 21,908 bare steel service lines.

20 Similar to steel pipe, plastic pipe has undergone significant technological
21 advancements over the past several decades. In Atmos Energy's Kansas system,

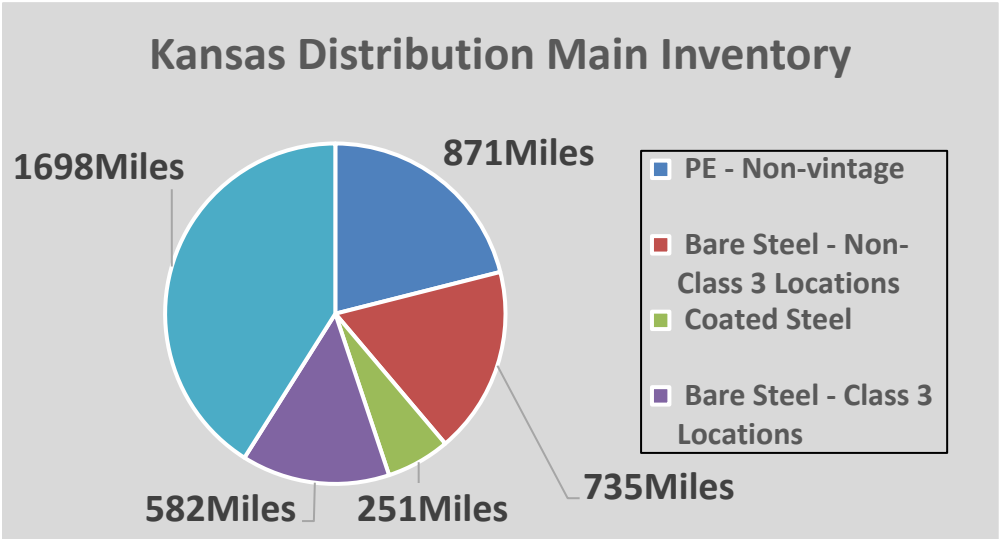
⁵ 49 C.F.R. § 192.461

1 the early generation plastic categories consist of PVC, Aldyl-A, and Marlex pipe
2 (collectively referred to as “vintage PE”).

3 PVC pipe is an early generation of plastic pipe installed by the gas industry
4 in the 1960s and 1970s that is no longer approved for use in the construction of
5 natural gas mains and services. Aldyl-A is an early generation PE pipe installed by
6 the natural gas industry from the 1960s through the early 1980s. Technological
7 advancements led the natural gas industry to discontinue the use of Aldyl-A pipe in
8 the 1980s and adopt the current generation of PE pipe. Like the bare steel pipe, all
9 of the PVC and Aldyl-A pipe (referred to collectively as “vintage plastic”) in Atmos
10 Energy’s Kansas system today was installed prior to Atmos Energy’s acquisition
11 of the assets that make up that system. Currently there are 2,569 miles of plastic
12 mains in the Atmos Energy’s Kansas system. Of these, 1,698 miles are currently
13 classified as Vintage PE installed prior to 1990.

14 Atmos Energy’s Kansas pipeline and service line inventories by material
15 are shown on Table JMW-1 below.

16 **Table JMW-1 – Atmos Energy Kansas Pipeline Inventory by Material**



1 **Q. CAN YOU PROVIDE ADDITIONAL DETAIL ABOUT THE RISK**
2 **ASSOCIATED WITH THESE TYPES OF MATERIALS?**

3 A. Yes. Material type is a major factor considered in Atmos Energy's risk
4 prioritization tool and the ultimate risk ranking of projects. Below I describe
5 various material types and why they pose a risk in our Kansas system. However, I
6 continue to emphasize that we consider this information in a broader context of
7 critical factors used to evaluate risk.

8 **A. BARE STEEL PIPELINE REPLACEMENT**

9 **Q. WHAT ARE THE MAIN CAUSES OF LEAKS ON BARE STEEL PIPE?**

10 A. The most frequent cause of leaks on bare steel pipe is corrosion. Excluding
11 excavation damage, approximately 42% of all below ground leaks repaired on
12 Atmos Energy's Kansas system over the past four years were caused by corrosion.

13 **Q. CAN CORROSION ON BARE STEEL PIPE BE EXPECTED TO**
14 **CONTINUE IN THE FUTURE?**

15 A. Yes. Once the corrosion process has started on bare steel pipe, it will continue until
16 the pipe fails or is replaced.

17 **Q. DOES CATHODIC PROTECTION ELIMINATE THE DETERIORATION**
18 **OF BARE STEEL PIPE?**

19 A. No. Cathodic protection is a technique used to control the corrosion rate of a metal
20 surface. Properly applied cathodic protection reduces the rate of corrosion, but it
21 does not eliminate corrosion from occurring.

22 **Q. WHY IS THAT A CONCERN?**

23 A. The majority of Atmos Energy's bare steel pipe has been in the ground since before

1 the 1960s. As this bare steel pipe continues to age, it deteriorates and develops
2 leaks. Allowing bare steel pipe to remain in the ground increases the risk to public
3 safety and the reliability of our system.

4 **Q. DO THE EVIDENCE AND THE COMMISSION’S ORDER IN THE 343**
5 **DOCKET SUPPORT THE NEED TO REPLACE ATMOS ENERGY’S**
6 **BARE STEEL PIPE IN KANSAS?**

7 A. Yes. In its Order in Docket No. 15-GIMG-343-GIG (the “343 Docket”), the
8 Commission concluded that accelerated pipeline replacement is in the public
9 interest. Specifically, the Commission focused on “the accelerated, programmatic
10 replacement of bare steel mains, bare steel service/yard lines, and cast iron mains”
11 and found that such replacement “is in the public interest and necessary.” There is
12 extensive evidence presented by the parties in that docket to support this
13 conclusion, as well as the conclusion for the need to accelerate replacement of all
14 industry-identified obsolete infrastructure.

15 **Q. WHAT TYPES OF MATERIALS IS ATMOS ENERGY USING TO**
16 **REPLACE THE BARE STEEL PIPE?**

17 A. Depending on the system maximum allowable operating pressure, Atmos Energy
18 is replacing bare steel pipe with either PE or coated steel pipe.

19 **B. VINTAGE PE PIPE REPLACEMENT**

20 **Q. PLEASE PROVIDE ADDITIONAL DETAIL ABOUT ATMOS ENERGY’S**
21 **VINTAGE PE PIPE.**

22 A. Atmos Energy’s Kansas gas distribution system still contains approximately 1,698
23 of vintage PE pipe installed prior to 1990. While these pipes are not generally as

1 old as the bare steel pipe in Atmos Energy's Kansas distribution system, they are
2 nonetheless made of materials that are considered obsolete and no longer used in
3 the natural gas industry.

4 **Q. WHAT ARE THE MAIN CAUSES OF LEAKS ON VINTAGE PE PIPE?**

5 A. As these materials age, the structure of the pipe weakens, becomes brittle and
6 eventually cracks, in addition to the workmanship, equipment and joining practices
7 at the time. Also, the glue used in the couplings that hold the joints of PVC together
8 stiffens as it ages, which can result in the pipe separating from the coupling.

9 **Q. IS REPLACEMENT OF THIS PIPE THE ONLY POSSIBLE REMEDY?**

10 A. Yes, replacement is the only remedy for these pipes. As stated above, vintage PE
11 pipe consists of materials that are no longer used for new installations. There is no
12 remedial action that will reverse the brittleness or cracking of this early generation
13 plastic pipe.

14 **C. THE BENEFITS OF ACCELERATED PIPELINE REPLACEMENT**

15 **Q. WHY IS THE ACCELERATED REPLACEMENT OF THESE PIPELINES**
16 **APPROPRIATE?**

17 A. It is both reasonable and prudent for the Company to pursue the accelerated
18 replacement of pipe comprised of materials with known and documented risks.
19 Replacement of these pipes allows Atmos Energy to mitigate the risk of incidents
20 that can result in death, injury, or significant property damage. It would be in the
21 public interest to allow Atmos Energy to utilize the SIP to accelerate the
22 replacement of its infrastructure that poses the highest relative risk to the
23 communities we serve.

1 **Q. ULTIMATELY, WHAT ARE THE BENEFITS TO CUSTOMERS OF THE**
2 **ACCELERATED REPLACEMENT OF THIS INFRASTRUCTURE?**

3 A. Accelerated replacement will improve system safety and reliability. Importantly,
4 the new infrastructure will have the accurate, verifiable, and complete records
5 required by federal regulation in order to perform more thorough risk assessments
6 of the Kansas distribution system in the future. Certain technical records for parts
7 of the Kansas distribution systems are unusable or unavailable today because they
8 were of poor quality or nonexistent during the time that the systems were operated
9 by the predecessor companies. Part 192 regulations⁶ require that data be gathered
10 during new pipe installations and when existing facilities are exposed during
11 routine maintenance in order to enhance our knowledge and analyses of our
12 systems. Therefore, an ancillary benefit of the SIP mechanism is establishing
13 accurate pipe and component data during pipe replacement activities and then
14 storing that information in the GIS and asset management databases to enable better
15 risk assessments in the future.

16 The proposed accelerated replacement program will also reduce the
17 inconvenience to the public by taking a proactive approach to project identification
18 and execution rather than a reactive approach. Historically, many projects are
19 identified and executed to eliminate an immediate hazardous threat to public safety
20 and customer reliability. Since our concern is typically a single immediate threat,
21 we often narrowly define the project scope to quickly eliminate only that threat.

22 This narrow approach necessitated by the immediate hazardous threat approach can

⁶ 49 C.F.R. Part 192.

1 lead to missed opportunities for efficiency by expanding the scope of a retirement
2 or replacement project to include adjacent facilities that do not yet pose an
3 immediate threat but nevertheless pose risks to the system. The SIP mechanism will
4 continue to facilitate Atmos Energy's replacement of bare steel, PVC, Aldyl-A and
5 Century pipe in an area prior to the detection of an immediate hazardous threat so
6 each project can be more efficient in both size and scope.

7 **IV. ATMOS ENERGY'S PROPOSED CHANGES TO SIP ARE IN THE**
8 **PUBLIC INTEREST.**

9 **Q. PLEASE EXPLAIN THE CHANGE BEING PROPOSED TO THE**
10 **CURRENT 5-YEAR PILOT PROGRAM OF THE SIP AND THE REASONS**
11 **FOR THE CHANGE.**

12 A. In 2019 when Atmos Energy worked with the Staff and CURB to develop the
13 parameters for the SIP based on the Commission's Order, Atmos Energy proposed
14 a \$35 million budget for the five-year pilot program. Since that time, project costs
15 have been higher than expected due to inflationary pressures and unexpected costs
16 associated with the projects. In order to complete the planned projects, Atmos
17 Energy is requesting a change to the cap on the spending for the current five-year
18 period from \$35 million to \$50 million. Of course, both the projected and the actual
19 costs of the projects will be reviewed by the Staff and CURB through the process
20 laid out in the SIP tariff, and the parties will have the opportunity to object to any
21 such costs on prudence grounds. However, given the identified relative risks
22 associated with the identified projects, Atmos Energy believes that it is in the public
23 interest to proceed with this investment in the planned timeframe and not introduce
24 further delay.

1 **Q. WHAT OTHER CHANGES IS ATMOS ENERGY PROPOSING TO THE**
2 **SIP?**

3 A. As part of its integrity management and risk assessment, Atmos Energy conducts
4 regular reviews of its assets and the relative risks associated with those assets. In
5 Kansas, Atmos Energy's system still contains a considerable number of bare steel
6 low pressure systems. Without an extension of the SIP, the rate of replacement of
7 these assets will not be optimized for the long-term safety of our system. Atmos
8 Energy believes that the success of the SIP thus far and the heightened focus of
9 pipeline safety regulations and industry guidance on the relative risk of bare steel
10 low pressure systems demonstrate that an extension of the program to address these
11 assets is in the public interest. In addition, this rate case filing provides an efficient
12 opportunity for the Commission to consider an extension without the need of a
13 separate filing outside the context of a general rate case.

14 Atmos Energy has conducted a relative risk analysis and has identified an
15 initial list of projects for inclusion in the requested additional five-year timeframe.
16 That project list is attached to my direct testimony as Exhibit JMW-2. Based on
17 the estimated budget for these projects, Atmos Energy is requesting a cap of \$75
18 million for the five-year timeframe.

19 **Q. IS ATMOS ENERGY'S PROPOSED SIP IN THE PUBLIC INTEREST?**

20 A. Yes. Inherent in the federal regulations, the integrity rules, and the associated
21 directives, is the requirement that pipeline operators do what is reasonably
22 necessary for the public good. The assessment, rehabilitation and proactive
23 replacement of aging infrastructure are essential to enhancing the safety and

1 integrity of the system. In light of the changes in the approach to federal and state
2 safety regulation and industry standards, the replacement projects are essential and
3 reasonable to ensure the continued safe and reliable operation of our system.

4 It is in the public interest to promote safety and investment in the integrity
5 of our system in a systematic manner that enables diligent regulatory oversight in
6 the areas of both safety regulation and rate regulation. In addition, implementing
7 and funding a safety and reliability program in a manner consistent with the federal
8 requirements and directives will afford our customers and the public the continued
9 security and benefits associated with a safe and reliable natural gas distribution
10 system.

11 **Q. PLEASE DESCRIBE THE PROACTIVE PROCESS UNDER WHICH**
12 **ATMOS ENERGY DETERMINES THE SELECTION AND**
13 **PRIORITIZATION OF PIPE REPLACEMENT PROJECTS IN KANSAS.**

14 A. Atmos Energy uses a risk ranking model to help prioritize the replacement of
15 distribution facilities. The model considers many factors to determine the
16 likelihood of failure and the consequence of failure. Using these factors, the
17 Company calculates a risk ranking of all its distribution facilities in defined
18 geographic areas across 79 cities and their environs. The risk ranking methodology
19 creates a score for each of the defined areas using factors that assess likelihood of
20 failure and consequence of failure. Atmos Energy has had discussions with the
21 Staff regarding our risk ranking in order to provide further insight into the details
22 and mechanics of the risk prioritization model. Based on feedback received we will
23 add additional risk considerations such as the existence of low pressure systems,

1 difficult to locate facilities, and accessibility of facilities to future risk prioritization
2 within the defined geographic areas. We also take into account operational needs
3 when determining the order in which to address replacement projects, and such
4 needs may lead to the reordering of projects as we approach the time of
5 construction. We look forward to a continuing dialogue with Staff regarding how
6 to best evaluate and address distribution system risk in order to improve the safety
7 of our system.

8 Historically, the model used in Kansas is overlaid by a materials-based approach
9 prioritizing bare steel pipe in Class 3 locations, based on the Commission's
10 guidance in the 343 Order. While these projects are expected to remain paramount,
11 Atmos Energy's SIP mechanism allows the flexibility for us to use our more
12 comprehensive, risk-based approach that does not restrict projects based on
13 material type but rather takes into account a variety of risk factors.

14 **V. CONCLUSION**


15 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

16 **A.** Yes, it does.

VERIFICATION

STATE OF COLORADO)
)
COUNTY OF DENVER)

John M. Willis, being duly sworn upon his oath, deposes and states that he is Vice President Technical Services of Atmos Energy Corporation's Colorado-Kansas Division; that he has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of his knowledge, information and belief.



John M. Willis

Subscribed and sworn before me this 1st day of September, 2022.

**ELENA PALNOVA
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20174028881
MY COMMISSION EXPIRES JULY 11, 2025**



Notary Public

My appointment expires: July 11, 2025

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BILLING CODE: 4910-60-W

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2021-0050]

Pipeline Safety: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; issuance of advisory bulletin.

SUMMARY: PHMSA is issuing this advisory bulletin to remind each owner and operator of a pipeline facility that the “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” (PIPES Act of 2020) contains a self-executing mandate requiring operators to update their inspection and maintenance plans to address eliminating hazardous leaks and minimizing releases of natural gas (including intentional venting during normal operations) from their pipeline facilities. Operators must also revise their plans to address the replacement or remediation of pipeline facilities that are known to leak based on their material, design, or past operating and maintenance history. The statute requires pipeline operators to complete these updates by December 27, 2021.

FOR FURTHER INFORMATION CONTACT:

Sayler Palabrica, by phone at 202-366-0559 or by email at Sayler.Palabrica@dot.gov.

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I. SUPPLEMENTARY INFORMATION:

Natural gas is composed primarily of methane, therefore leaks and other releases of natural gas emit methane gas into the atmosphere. According to the U.S. Environmental Protection Agency (EPA), methane is a potent greenhouse gas with a global warming potential (GWP) of 28-36 over 100 years.¹ Compared to carbon dioxide, methane gas has a stronger warming effect, but a shorter lifespan in the atmosphere. Due to the high GWP and short lifespan of methane gas in the atmosphere, minimizing releases of natural gas (both fugitive and vented emissions) has relatively near-term benefits to mitigating the consequences of climate change. Likewise, remediation or replacement of pipeline facilities that are known to leak based on material, design or past operating and maintenance history can result in enhanced public safety, environmental protection, and economic benefits.

The “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” (Pub. L. 116-260, Division R; “PIPES Act of 2020”) was signed into law on December 27, 2020. This law contains several provisions that specifically address the elimination of hazardous leaks and minimization of releases of natural gas from pipeline facilities. Section 114(b) of the PIPES Act of 2020 contains self-executing provisions that apply directly to pipeline operators. This section requires each pipeline operator to update its inspection and maintenance plan required under 49 U.S.C. 60108(a) no later than one year after the date of enactment of the PIPES Act of 2020 (i.e., by December 27, 2021) to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal

¹ “Understanding Global Warming Potentials,” U.S. EPA, available at <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

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operations) from the operators' pipeline facilities (49 U.S.C. 60108(a)(2)(D)). The PIPES Act of 2020 also requires those plans to address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history (49 U.S.C. 60108(a)(2)(E)). In addition, 49 U.S.C. 60108(a)(2) requires that operators continue updating these plans to meet the requirements of any future regulations related to leak detection and repair that are promulgated under 49 U.S.C. 60102(q).

II. ADVISORY BULLETIN (ADB-2021-01)

To: Owners and Operators of Gas and Hazardous Liquid Pipeline Facilities.

Subject: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

Advisory: The PIPES Act of 2020 contains self-executing provisions requiring pipeline facility operators to update their inspection and maintenance plans to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from their systems before December 27, 2021. PHMSA expects that operators will comply with the inspection and maintenance plan revisions required in the PIPES Act of 2020 by revising their operations and maintenance (O&M) plans required under 49 CFR 192.605, 193.2017, and 195.402, to address the elimination of hazardous leaks and minimize releases of natural gas from pipeline facilities. The plans must also address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues),

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design, or past O&M history. The plans must in be in writing, tailored to the operator's pipeline facilities, supported by technical analysis where necessary, and sufficiently detailed to clearly describe the manner in which each requirement is met. For additional guidance on O&M plans for hazardous liquid and natural gas pipeline facilities, see "Operations & Maintenance Enforcement Guidance," part 192 subparts L and M, page 17, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5776/o-m-enforcement-guidance-part-192-7-21-2017.pdf>; and "Operations & Maintenance Enforcement Guidance," part 195 subpart F, page 18, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5781/o-m-enforcement-guidance-part-195-7-21-2017.pdf>.

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020, PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators' revised O&M plans in calendar year 2022, and such inspections must be completed by December 27, 2022. During these inspections, PHMSA, or the relevant state authority, is required to evaluate whether the plans adequately address items listed in section 114 of the PIPES Act of 2020.

Operators need to consider the following items as they update their plans to comply with section 114 of the PIPES Act of 2020:

- O&M plans must be detailed to address the elimination of hazardous leaks and minimization of releases of natural gas from the operators' pipeline facilities; meaning pipeline operators must update their plans to minimize, among other things, fugitive emissions and vented emissions from pipeline facilities. PHMSA and state

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- inspections, therefore, will evaluate the steps taken to prevent and mitigate both unintentional, fugitive emissions as well as intentional, vented emissions. Fugitive emissions include any unintentional leaks from equipment such as pipelines, flanges, valves, meter sets, or other equipment. Vented emissions include any release of natural gas to the atmosphere due to equipment design or operations and maintenance procedures. Common sources of vented emissions include pneumatic device bleeds, blowdowns, incomplete combustion, or overpressure protection venting (e.g., relief valves).
- O&M plans must address the replacement or remediation of pipelines that are known to leak based on the material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history of the pipeline. PHMSA and state inspections will include an evaluation of how the material present in the pipeline system, design of the system, as well as the past O&M history of the system, contribute to the leaks that occur on the system. PHMSA and states will evaluate whether the plans adequately address reducing leaks on operators' pipeline systems due to the aforementioned factors.
 - Operators must carry out a current, written O&M plan to address public safety and the protection of the environment. In addition to the new statutory requirement that PHMSA and state inspections consider the extent to which the plans will contribute to the elimination of hazardous leaks and minimizing releases of natural gas from pipeline facilities, PHMSA's inspections will continue to include an evaluation of the

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extent to which the plans contribute to both public safety and the protection of the environment.

Developing and implementing comprehensive written O&M plans is an effective way to eliminate hazardous leaks and minimize the release of natural gas from pipeline systems.

PHMSA anticipates these self-executing statutory mandates will result in enhanced public safety and reductions in pipeline emissions thereby reducing impact on the environment.

Issued in Washington, DC, on June 04, 2021, under authority delegated in 49 CFR 1.97.

Alan K. Mayberry,
Associate Administrator for Pipeline Safety.

EXHIBIT JMW-2
BARE STEEL LOW-PRESSURE SIP PROJECTS IDENTIFIED FOR 2026-2030

Project Location	Miles to be Replaced	Prioritization Score
CoffeyvilleS Pine St: E Martin to E 11th	2.87	13.25
SedanLaurel St: Oak St to Dora Ave	5.68	12.95
SedanElm St: Park Ave - Redbud Ln	3.85	12.77
IndependenceWalnut St: Poplar - Pennsylvania	6.29	12.59
SavonburgCity Wide	1.67	12.55
CoffeyvilleETB - Spruce; Verdigris - Martin	4.13	12.48
ChepotaElm St: US-59 - N 2nd St	5.13	12.04
BuffaloCity Wide	4.79	11.89
Independence4th St: E Cherry to E Poplar	4.70	11.87
Coffeyville14th - Eldrige; Willow - US-169	4.40	11.70
BurlingtonS 6th St: Niagria to Alleghaney	1.08	11.27
CaneyHoward Ave: Pawn St - Main St	3.23	11.26
IndependenceMyrtle St / River: 6th - CR4160	3.59	11.25
FredoniaJackson St: N 8th St - N 3rd St	6.08	11.16
ChepotaLocust St: US-59 - N 2nd St	3.20	10.46
IndependenceE Hill St: S 2nd St - Cement St	4.07	10.34
TyroCity Wide	2.51	10.26
IndependenceBeech St: N 21st St - N 10th St	2.78	10.21
Burlington11th St: Kennebec to Lawrence	1.97	10.08
Fredonia15th St: Fillmore - Parkview	6.11	10.06
BenedictCity Wide	1.31	10.01
LinwoodCity Wide	1.41	9.92
Fall RiverCity Wide	2.61	9.57
EdnaK-101: 5000 Rd to Main St	2.99	9.36
Coffeyville16th - 3325; Cherry Rd - Laurel	5.49	9.02
PeruCity Wide	3.87	8.93