

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**

Special Permit Analysis and Findings

Class 1 to 3 Location

Special Permit Information:

Docket Number: PHMSA-2019-0150
Requested By: Natural Gas Pipeline Company of America, LLC
Operator ID#: 13120
Original Date Requested: December 19, 2018
Original Issuance Date: May 17, 2022
Code Section(s): 49 CFR 192.611(a) and (d) and 192.619(a)

Purpose:

The Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS),¹ provides this information to describe the facts of the subject special permit application submitted by Natural Gas Pipeline Company of America, LLC (NGPL),² to discuss any relevant public comments received with respect to the application, to present the engineering and safety analysis of the special permit application, and to make findings regarding whether the requested special permit should be granted and, if so, under what conditions. NGPL requested that PHMSA waive compliance from the 49 Code of Federal Regulations (CFR) 192.611(a) and (d) and 192.619(a) for natural gas transmission pipeline segments, where the class location has changed from Class 1 to a Class 3 location.

Pipeline System Affected:

This special permit application by NGPL requests a waiver from the class location change requirements in 49 CFR 192.611(a) and (d) and 192.619(a) for approximately 0.163 miles of 30-inch diameter

¹ Throughout this special permit the usage of “PHMSA” or “PHMSA OPS” means the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

² NGPL is owned by Kinder Morgan, Inc.

Louisiana Line #1 and Amarillo Line #4 Pipelines (Pipelines) located in Muscatine County, Iowa, and Vermilion Parish, Louisiana. The special permit will allow NGPL to continue operating two (2) *special permit segments*, as defined below, at a maximum allowable operating pressure (MAOP) of 712 pounds per square inch gage (psig) on the Amarillo #4, and 1,100 psig Line Louisiana Line #1 Pipelines (Pipelines).

Pipe specifications including outside diameter, year installed, seam type, coating type, pipe grade, wall thickness, MAOP, minimum pressure test pressure, and pressure test factor based on the minimum test pressure are detailed in **Table 1 – Pipe Specifications by Line Name**.

Table 1 – Pipe Specifications by Line Name							
Outside Diameter (inches)	Year Installed	Seam Type	Coating Type	Grade	Wall Thickness (inches)	MAOP (psig)	Pressure Test Factor
36	1973	DSAW	Fusion Bonded Epoxy	X60	0.298	712	1.39
30	1967	DSAW	Coal Tar Enamel	X65	0.36	1,100	1.40

Note: DSAW is double submerged pipe weld seam pipe. PSIG is pounds per square inch gauge.

Without this special permit, 49 CFR 192.611(a) would require NGPL to replace the *special permit segments* with stronger pipe or reduce the pipeline MAOP for a Class 1 to Class 3 location change.

Special Permit Request:

On December 19, 2018, NGPL applied to PHMSA for a special permit seeking relief from 49 CFR 192.611(a) and (d) and 192.619(a) for the below-listed *special permit segments*, where a class location change occurred from the original Class 1 to a Class 3 on the 30-inch diameter Louisiana Line #1 and 36-inch diameter Amarillo Line #4 Pipelines located in Muscatine County, Iowa, and Vermilion Parish, Louisiana.

NGPL’s special permit applies to the *special permit segments* and *special permit inspection area* described and defined as follows, using the NGPL survey station references:

Special Permit Segments:

This special permit applies to the *special permit segments* in **Table 2 – Special Permit Segments** and are identified using the NGPL survey station (SS) references.

Table 2 – Special Permit Segments

Special Permit Segment Number ³	Outside Diameter (inches)	Line Name	Length (feet)	Start Survey Station (SS)	End Survey Station (SS)	County or Parish, State	No. Dwellings	Year Installed	Seam Type	MAOP (psig)
2 (KM 502)	36	Amarillo Line #4	206.26	109 – 3884222	109 – 3884428	Muscatine, IA	1	1973	DSAW	712
3 (KM 502)	30	Louisiana Line #1	655.52	342 - 1068074	342 - 1068730	Vermilion, LA	8	1967	DSAW	1,100

Special Permit Inspection Areas:

The *special permit inspection areas* are defined as the area that extends 220 yards on each side of the centerline as listed in **Table 3 – Special Permit Inspection Areas**.

Table 3 – Special Permit Inspection Areas

Special Permit Inspection Area Number	Special Permit Segment(s) Included	Outside Diameter (inches)	Line Name	Start Survey Station (SS)	End Survey Station (SS)	Length ⁴ (miles)
2	2	36	Amarillo Line #4	109 – 3615906	E Mississippi – 3892993.06	52.93
3	3	30	Louisiana Line #1	342 – 525391	342 – 1084483.4	105.89

The *special permit inspection areas* are in Muscatine, Louisa, Washington, and Keokuk Counties, Iowa; and Vermilion and Cameron Parishes, Louisiana.⁵

Public Notice:

On March 5, 2021, PHMSA posted a notice of this special permit request in the Federal Register (86 FR 13016) with a closing date of April 5, 2021. PHMSA received one anonymous public comment concerning this special permit request. The anonymous comment opposed PHMSA entertaining any more special permits as the commenter believed that PHMSA was not processing special permit requests from a particular large pipeline operator in a timely manner and was not transparent about its consideration of the special permit requests from that operator. PHMSA believes the commenter’s

³ On February 3, 2022, NGPL rescinded the request for *special permit segment number 1 (KM 501)*.

⁴ If the *special permit inspection area* footage does not extend from launcher to receiver, the *special permit inspection area* would need to be extended.

⁵ The *special permit inspection area* includes the *special permit segment*.

allegations are unfounded as all special permits are processed by using the Federal Register Notice process which provides full transparency.

PHMSA has reviewed this special permit application to ensure the special permit conditions address pipeline safety and integrity threats to the pipeline in the *special permit segments* and *special permit inspection areas*. The special permit will require that NGPL provide a systematic program to review and remediate the pipeline for safety concerns in its Operations and Maintenance (O&M) Manual and Procedures. Additional operational integrity reviews and remediation requirements will be required by this special permit for the *special permit segments* for Class 1 to 3 location changes.

The NGPL special permit application letter, Federal Register notice, FEA, Finding of No Significant Impact, and all other pertinent documents are available for review in Docket No. PHMSA-2019-0150 in the Federal Docket Management System (FDMS) located at www.Regulations.gov.

Analysis:

Background: On June 29, 2004, PHMSA published in the Federal Register (69 FR 38948) the criteria it uses for the consideration of applications for class location change waivers, now being granted or denied through a special permit. First, certain threshold requirements should be met on a pipeline *special permit segment* for a class location change special permit to be granted. Second, the age and manufacturing process of the pipe; system design, and construction; environmental, operating and maintenance histories; and integrity management program elements are evaluated as significant criteria. These significant criteria are presented in matrix form and can be reviewed in the FDMS, Docket No. PHMSA–RSPA-2004-17401. Third, special permits will only be granted when pipe conditions and active integrity management provide a level of safety greater than or equal to a pipe replacement or pressure reduction. The operator’s Federal pipeline safety regulation compliance history is also evaluated as part of the criteria matrix for acceptability prior to issuance of a special permit.

Threshold Requirements: Each of the threshold requirements published by PHMSA in the June 29, 2004, Federal Register notice is discussed below regarding the NGPL special permit request.

- No pipeline segments in a class location changing to Class 4 location will be considered.
 - This special permit request is for two (2) *special permit segments* where a change has occurred from a Class 1 location to a Class 3 location.

- NGPL meets this requirement.
- No bare pipe will be considered.
 - The NGPL *special permit segments* are externally coated with coal tar enamel (Louisiana Line #1) and fusion bonded epoxy (Amarillo Line #4).
 - NGPL meets this requirement.
- No pipe containing wrinkle bends will be considered.
 - There are no reported wrinkle bends in the *special permit segments*.
 - NGPL meets this requirement.
- No pipe segments operating above 72% of the specified minimum yield strength (SMYS) will be considered for a Class 3 special permit.
 - The *special permit segments* operate at or below 72% SMYS.
 - NGPL meets this requirement.
- Records must be produced that show a hydrostatic test to at least 1.25 time the MAOP. The records should include test pressure, year of the test, test duration, and pressure test percent of MAOP for each pipeline:
 - NGPL has provided pressure test records that the *special permits segments* have been tested to at least 1.25 times the MAOP.
 - NGPL has pressure test records for the *special permit segments* that meet 49 CFR 192.624(a)(1), 192.619(a)(2), and 192.517(a).
 - NGPL has met this requirement.
- Inline inspection (ILI) must have been performed with no significant anomalies identified that indicate systemic problems, such as stress corrosion cracking (SCC).
 - NGPL ran a high-resolution magnetic flux leakage (HR-MFL) ILI for corrosion and deformation ILI for denting. NGPL has no documented SCC findings in the *special permit segments*.
 - NGPL has met this requirement.
- Criteria for consideration of a class location change waiver, being considered through the special permit, published by PHMSA in the Federal Register (69 FR 38948), define a *waiver inspection*

area (*special permit inspection area*) as up to 25 miles of pipe on either side of the *waiver segment* (*special permit segment*).

- NGPL has identified longer segments surrounding each *special permit segment* as the *special permit inspection area*. These segments have been extended to the entire segment length between the upstream launcher and downstream receiver on each ILI segment that contains one (1) or more *special permit segments*.
- A special permit would be contingent upon NGPL's incorporation of the *special permit segments* in its written integrity management program as a covered segment in a high consequence area in accordance with 49 CFR 192.903.

Criteria Matrix: The data submitted by NGPL for the *special permit segment* have been compared to the class location change special permit criteria matrix and are as follows:

- The *special permit segments* fall in the *probable acceptance* column of the criteria matrix for:
 - Design stress, test pressure, test failures, pressure fluctuations, safety related conditions reports, integrity management program, ILI type, coating assessment, and damage prevention program.
- The *special permit segments* fall in the *possible acceptance* column of the criteria matrix for:
 - Class Location change, pipe manufacture, pipe material, pipe girth welds, pipe coating, depth of cover, local geology, leaks and failures, service, cathodic protection (CP), ILI time frame, and inspection findings.
- The *special permit segments* fall in the *requires substantial justification* column of the criteria matrix for PHMSA enforcement findings.
 - Kinder Morgan, Inc. overall enforcement findings fall in the *requires substantial justification category*. NGPL's 11-year enforcement findings do not fall within this category.
 - This special permit requires NGPL to implement the special permit conditions that include safety requirements on the operations, maintenance, and integrity management of the *special permit segments (0.168 miles)* and the *special permit inspection areas (158.82 miles)*. Therefore, the safety benefits are obtained well beyond the portion of the pipeline that experienced a class location change.

- NGPL will be required to submit to PHMSA an annual report for this special permit on integrity threats to the pipeline in the *special permit segment* and the *special permit inspection area*.

Operational Integrity Compliance:

To inform PHMSA’s decision about whether a special permit could provide a level of safety greater than or equal to a pipe replacement or pressure reduction and is consistent with pipeline safety, PHMSA reviewed this special permit request to understand the known type of integrity threats that are in the *special permit segment* and *special permit inspection area*. This integrity information was used to consider special permit conditions to provide a systematic program to review and remediate the pipeline for safety concerns. Additional operational integrity review and remediation requirements are required by this special permit to ensure that the operator has an ongoing program to locate and remediate safety threats. These threats to integrity and safety include any issues with the pipe coating quality, CP effectiveness, operations damage prevention program, pipe depth of soil cover, weld seam and girth weld integrity, anomalies in the pipe steel and welds, and material and structures either along or near the pipeline that could cause the CP system to be ineffective. PHMSA has carefully designed a comprehensive set of conditions that NGPL must implement to comply with this special permit.

Past Enforcement History – January 1, 2011 through January 31, 2022:

During January 1, 2011 through January 31, 2022, NGPL was cited in one (1) enforcement actions with no assessed civil penalties. PHMSA issued one (1) Notice of Amendment to NGPL. **Tables 4 and 5** below shows PHMSA’s enforcement actions and civil penalties for NGPL:

Table 4 - NGPL Enforcement Matters from January 1, 2011, through January 31, 2022						
Status	Corrective Action Order	Notice of Amendment	Notice of Probable Violation	Safety Order	Warning Letter	Total
CLOSED	2	4	5	0	2	14
OPEN	1	0	0	0	0	0
Total	3	4	5	0	2	14

Table 5 - NGPL Enforcement Civil Penalty Status January 1, 2011 through January 31, 2022				
Proposed	Awaiting Order	Assessed	Withdrawn/Reduced	Collected
\$332,600	\$0	\$285,100	\$47,500	\$285,100

Summary of Enforcement Findings for NGPL includes: Corrosion control, operations and maintenance procedures, operations and maintenance, public awareness, control room management, qualification of operating personnel, and integrity management:

- 49 CFR 191.3, 192.12, 192.479, 192.481, 192.603, 192.605, 192.611, 192.615, 192.616, 192.631, 192.709, 192,805, 192.807, 192.917, and 192.933.

Table 6 below shows PHMSA’s enforcement actions and civil penalties for NGPL and the specific 49 CFR 192 violations:

Table 6 - Summary of Enforcement Findings for NGPL January 1, 2011 through January 31, 2022					
Notice of Amendment					
OME Procedural Manual	1	Control Room Management	1	Operator Qualification	3
Public Awareness	4	Integrity Management	2	Transportation of Gas	1
Notice of Amendment Total:					12
Notice of Probable Violation					
Corrosion Control	3	OME Procedural Manual	2	Operation and/or Maintenance	6
Operator Qualification	2	Integrity Management	1		
Notice of Probable Violation Total:					14
Warning Letter					
Transportation of Gas	1	Operation and/or Maintenance	1		
Notice of Amendment Total:					3
Grand Total:					38

Summary of Enforcement Findings for the Kinder Morgan Gas Pipelines Companies - CIG, EPNG, NGPL, SNG, TEJAS, and TGP:

From January 1, 2011, through January 31, 2022, Kinder Morgan, the operator of NGPL, was cited in 64 enforcement actions with a total of \$1,077,800 in assessed civil penalties on its Colorado Interstate Gas Company (CIG), El Paso Natural Gas Company (EPNG), Natural Gas Pipeline of America (NGPL), Southern Natural Gas Company (SNG), Tejas Pipeline (TEJAS), and Tennessee Gas Pipeline Company (TGP) pipeline systems. PHMSA issued sixteen (16) Notice of Amendments, twenty-two (22) Notices of Probable

Violations, twenty-one (21) Warning Letters, one (1) Safety Order, and six (6) Corrective Action Orders to Kinder Morgan.

Tables 7 and 8 below show PHMSA’s enforcement actions and civil penalties for Kinder Morgan on these pipeline systems – CIG, EPNG, NGPL, SNG, TEJAS, and TGP with operator identification numbers (OPID#) 2564, 4280, 13120, 18516, 4900, and 19160.

Table 7 - Kinder Morgan Enforcement Matters from January 1, 2011, through January 31, 2022						
Status	Corrective Action Order	Notice of Amendment	Notice of Probable Violation	Safety Order	Warning Letter	Total
CLOSED	5	16	21	1	21	64
OPEN	3	1	1	0	0	5
Total	8	17	22	1	21	69

Table 8 - Kinder Morgan Enforcement Civil Penalty Status January 1, 2011 through January 31, 2022				
Proposed	Awaiting Order	Assessed	Withdrawn/Reduced	Collected
\$1,461,500	\$0	\$1,077,800	\$383,700	\$1,077,800

The type of 49 CFR Part 192 enforcement violations against Kinder Morgan on these six (6) pipeline systems from January 1, 2011, through January 31, 2022, were as follows:

Summary of Enforcement Findings for CIG, EPNG, NGPL, SNG, TEJAS, and TGP includes:

reporting, design, welding, compliance with specifications or procedures, corrosion control, operations and maintenance procedures, continuing surveillance, public awareness, emergency plans, MAOP, control room management, relief devices, maintenance of valves, qualification of operating personnel, and integrity management:

- 49 CFR 191.5, 191.14, 191.15, 191.22, 191.25, 191.27, 192.12, 192.14, 192.161, 192.199, 192.225, 192.227, 192.229, 192.303, 192.459, 192.463, 192.465, 192.469, 192.475, 192.479, 192.481, 192.603, 192.605, 192.613, 192.615, 192.616, 192.619, 192.625, 192.631, 192.705, 192.706, 192.707, 192.709, 192.713, 192.735, 192.736, 192.739, 192.743, 192.745, 192,805, 192.807, 192.905, 192.911, 192.917, 192.921, 192.933, 192.935, and 192.937.

Table 9 below gives a complete summary of the findings and the specific 49 CFR Part 191 and 192 violation:

Table 9 – Summary of Enforcement Findings for CIG, EPNG, Tejas, NGPL, SNG, and TGP January 1, 2011 through January 31, 2022					
Notice of Amendment					
OME Procedural Manual	11	Operation and/or Maintenance	2	Operator Qualification	3
Public Awareness	8	Reporting	3	Transportation of Gas	5
Integrity Management	10	Control Room Management	4	Construction	1
Welding of Steel in Pipelines	3				
Notice of Amendment Total:					50
Notice of Probable Violation					
Corrosion Control	13	OME Procedural Manual	14	Operation and/or Maintenance	26
Operator Qualification	7	Public Awareness	2	Reporting	5
Integrity Management	10	Control Room Management	1	Welding of Steel in Pipelines	1
Design	2				
Notice of Probable Violation Total:					81
Warning Letter					
Corrosion Control	10	OME Procedural Manual	9	Operation and/or Maintenance	31
Operator Qualification	2	Public Awareness	4	Reporting	1
Transportation of Gas	1	Integrity Management	1	Design	1
Notice of Amendment Total:					60
Grand Total:					191

Findings:

Based on the information submitted by NGPL and PHMSA’s analysis of the technical, operational, and safety issues, PHMSA finds that granting this special permit to NGPL to operate two (2) *special permit segments* on the 36-inch diameter Amarillo Line #4 and 30-inch diameter Louisiana Line #1 Pipelines located in Muscatine County, Iowa, and Vermilion Parish, Louisiana, for approximately 0.163 miles of Class 1 location pipe in a Class 3 location is consistent with pipeline safety.

PHMSA has designed the special permit conditions to effectively assess and remediate threats to the *special permit segments* and *special permit inspection areas*, including pressure testing, obtaining pipe material records, and conducting assessments to evaluate pipe girth welds that have not been non-destructively tested, any pipe with missing material records, and SCC. To ensure NGPL properly

implements the special permit conditions, NGPL will be required to give PHMSA an annual review of their compliance with the special permit.

PHMSA finds that no significant negative impact to human safety and the environment will result from the issuance and full implementation of a special permit that waives the requirements of 49 CFR 192.611 for class location changes to a Class 3 location. This special permit requires NGPL to implement the special permit conditions that include safety requirements on the operations, maintenance, and integrity management of the *special permit segments* and the *special permit inspection areas*. NGPL will be required to implement the special permit conditions along the *special permit segments* and *special permit inspection areas* in pipeline segments that are not high consequence areas and would not normally be required by 49 CFR Part 192 to be assessed on a periodic interval for threats.

Completed in Washington DC on: May 17, 2022

Prepared by: PHMSA - Engineering and Research Division

Final Page of the Special Permit Analysis and Findings