

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
Special Permit Analysis and Findings**

Special Permit Information:

Docket Number: PHMSA-2019-0015
Requested By: Gulf South Pipeline Company, LP
Operator ID#: 31728
Original Date Requested: November 30, 2018
Original Issuance Date: June 19, 2019
Effective Dates: June 19, 2019 to June 18, 2029
Code Section(s): 49 CFR 192.611

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 Gulf South Pipeline Company² (GSPC), to discuss any relevant public comments received with respect to the application, to present the engineering/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.

Pipeline System Affected:

This special permit waives compliance from 49 CFR 192.611 for approximately 0.75 miles (3,964 feet) of natural gas transmission pipeline on the 30-inch diameter Index 330 Pipeline (Index 330 Pipeline). This special permit is granted for the segment of the Index 330 Pipeline

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 GSPC is a wholly-owned, operating subsidiary of Boardwalk Pipeline Partners, LP.

where the class location of the pipeline has changed from a Class 1 location to a Class 3 location in St. Mary Parish, Louisiana.

This special permit allows GSPC to continue operating the *special permit segment* and the *special permit inspection area*, defined below, at their current maximum allowable operating pressure (MAOP) of 974 pounds per square inch gauge (psig).

The Index 330 Pipeline segment affected is described below.

Special Permit Segment:

This special permit applies to the *special permit segment* defined as follows using the GSPC Index 330 Pipeline survey station references:

- *Special permit segment* – Index 330 Pipeline — (3,964 feet) Survey Station 527+87 to Survey Station 567+51 and is located in St. Mary Parish, Louisiana.

Special Permit Inspection Area:

*Special permit inspection area*³ is defined to mean - the area that extends 220 yards on each side of the centerline along approximately 22.96 miles of the Index 330 Pipeline from:

- Survey station 0+03 (beginning of line) to survey station 1212+28 (pig trap at Weeks Island Junction). The Index 330 Pipeline *special permit inspection area* extends approximately 22.96 miles (121,558 feet). The *special permit inspection area* is located in St. Mary Parish and Iberia Parish, Louisiana.
- High consequence areas (HCAs) located in the *special permit inspection area* are at the following survey stations:
 - Survey Station 52+39 to 69+56 – 1717 feet
 - Survey Station 525+00 to 553+27 – 2827 feet
 - Survey Station 844+20 to 864+30 – 2010 feet
 - Survey Station 915+11 to 931+10 – 1599 feet

³ There are two (2) station equations in the *special permit inspection area*, which explains the discrepancy between the reported length and the difference between the beginning and ending stations of the *special permit inspection area*: BK=0+00, AH=0+00 and BK=1007+97, AH=1004+74.

Attachments A and B are maps showing the 30-inch Index 330 Pipeline *special permit segment* and *inspection area*, and class locations.

PHMSA grants this special permit based on the findings set forth in this "Special Permit Analysis and Findings" document and the "Final Environmental Assessment and Finding of No Significant Impact" document, which can be read in its entirety in Docket No. PHMSA-2019-0015 in the Federal Docket Management System (FDMS) located on the internet at www.regulations.gov.

Special Permit Request:

GSPC submitted an application to PHMSA on November 30, 2018, for a special permit seeking relief from the Federal Pipeline Safety Regulations in 49 CFR 192.611 for one (1) segment of the 30-inch diameter Index 330 natural gas transmission pipeline, where a change has occurred from the original Class 1 location to a Class 3 location in St. Mary Parish, Louisiana. As requested, this special permit allows GSPC to operate the pipeline *special permit segment* at a MAOP of 974 psig. The Federal Pipeline Safety Regulations in 49 CFR 192.611(a) require natural gas pipeline operators to confirm or revise the MAOP of a pipeline segment after a change in class location without the granting of this special permit.

Public Notice:

On March 26, 2019, PHMSA posted a notice of this special permit request in the Federal Register (84 FR 11395) and extended the notice period in the Federal Register (84 FR 18918). The Federal Register notice period ended on May 17, 2019. The request letter, Federal Register notice, and all other pertinent documents are available for review in Docket No. PHMSA-2019-0015 in the FDMS located on the internet at www.regulations.gov.

PHMSA received two (2) comments on the Federal Register docket concerning the pipeline routing and the safety of granting this special permit. Index 330 Pipeline is an existing pipeline and PHMSA does not have pipeline siting authority. PHMSA believes that implementation by GSPC of the special permit conditions on the Index 330 Pipeline will ensure public safety.

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 segment* and

special permit inspection area. The special permit will require GPSC's Operations and Management Plan (O&M Plan) to provide a systematic program to review and remediate the pipeline for safety concerns. Additional operational integrity reviews and remediation requirements will be required by this special permit for this ***special permit segment*** class location change as outlined in the Operational Integrity Compliance section of this document.

Analysis:

Background: On June 29, 2004, PHMSA published in the Federal Register (69 FR 38948) the criteria it uses for the consideration of class location change waivers, now being granted through a special permit. First, certain threshold requirements must be met for a pipeline section to be further evaluated for a class location change special permit. 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 Number PHMSA-RSPA-2004-17401. Third, such special permits will only then 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.

Threshold Requirements: Each of the threshold requirements published by PHMSA in the June 29, 2004, Federal Register notice is discussed below in regards to the GSPC's special permit petition.

- 1) No pipeline segments in a class location changing to Class 4 location will be considered. This special permit request is for one (1) segment of GSPC's Index 330 Pipeline where a class location change has occurred from an original Class 1 location to a Class 3 location. GSPC has met this requirement.
- 2) No bare pipe will be considered. The GSPC ***special permit segment*** is coated with coal tar enamel coating. GSPC has met this requirement.
- 3) No pipe containing wrinkle bends will be considered. There are no wrinkle bends in the ***special permit segment***. GSPC has met this requirement.

- 4) 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 segment* operates at or below 72% SMYS. GSPC has met this requirement.
- 5) Records must be produced that show a hydrostatic test to at least 1.25 x MAOP and 90% of SMYS. GSPC records submitted show that the sections of the Index 330 Pipeline containing the *special permit segment* have been hydrostatically tested. GSPC has met this requirement.
- 6) In-line inspection (ILI) must have been performed with no significant anomalies identified that indicate systemic problems. The proposed *special permit segments* have been inspected in March 2017, using a high resolution magnetic flux leakage (HR-MFL) and HR-Deformation. GSPC has met this requirement, but will be required to run future ILI inspections and remediate anomalies with wall loss greater than 40% of the pipe wall thickness.
- 7) Criteria for consideration of a class location change waiver, now being granted through 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)*. The *special permit inspection area* must be inspected according to GSPC's integrity management program and periodically inspected with an in-line inspection technique. The *special permit inspection area* is approximately 22.96 miles of the Index 330 Pipeline and includes the *special permit segment*. This special permit is contingent upon GSPC's incorporation of the *special permit segment* in its written integrity management program as covered segments in a high consequence area in accordance with 49 CFR 192.903. The *special permit inspection area* is from launcher to receiver on the Index 330 pipeline.
- 8) The *special permit segment* and *special permit inspection area* of the Index 330 Pipeline are composed of pipe manufactured in 1961 by National Tube with a double submerged arc welded (DSAW) longitudinal seam.

The *special permit segment* meets the threshold requirements; however, additional ILI tool runs and other integrity surveys will be necessary to ensure safety, and therefore, will be required in the special permit conditions.

Criteria Matrix: The original and supplemental data submitted by GSPC for the *special permit segment* have been compared to the class location change special permit criteria matrix. The data fall within the *probable acceptance* column of the criteria matrix, except class location change falling under possible acceptance.

- The *special permit segment* falls in the probable acceptance column of the criteria matrix for all criteria except for:
 - Possible acceptance – Class location change from a Class 1 to a Class 3 location

The data findings below fall within the “probable acceptance” columns of the criteria matrix:

- 1) The Index 330 Pipeline *special permit inspection area* has had no mainline pipe or seam failures since a 1961 pressure test.
- 2) Six (6) anomalies were found in the June 2017 ILI tool run that require investigation and remediation. The special permit will require GSPC to remediate all anomalies in the Index 330 Pipeline *special permit inspection area* and *special permit segment* that do not meet the special permit conditions.

This places all *special permit segments* in the “possible acceptance” column of the criteria matrix.

To further address any pipe design, construction, and operational integrity issues, this special permit will include conditions requiring GSPC to treat the *special permit segment* as a “covered segment” in an HCA in accordance with 49 CFR 192.903. GSPC will also be required to perform ILI assessments, anomaly repairs, close interval survey (CIS), and stress corrosion cracking direct assessment (SCCDA) of the Index 330 Pipeline along the entire length of the *special permit inspection area* and *special permit segment* according to the requirements of 49 CFR 192.929. Alternatively, GSPC will be required to perform an engineering assessment showing that the pipeline does not meet any of the criteria for near neutral and high pH SCC in accordance with the applicable edition of the American Society of Mechanical Engineers Standard B31.8S, “*Managing System Integrity of Gas Pipelines*” (ASME B31.8S), Appendix A3, or NACE SP 0204-2008, “*Stress Corrosion Cracking (SCC) Direct Assessment Methodology*”, Sections 1.2.1.1 and 1.2.2.

- 1) PHMSA will require GSPC to implement the special permit conditions and to certify completion in Special Permit Condition 25 through the granting of the special permit.

PHMSA has determined that imposing the special permit conditions will address these concerns and provide equivalent safety for these areas.

Operational Integrity Compliance: PHMSA reviewed this special permit request to ensure that integrity threats to the pipeline in the *special permit segment* and *special permit inspection area* are in the Operator's O&M Plan to provide a systematic program to review and remediate the pipeline for safety concerns. Additional operational integrity review and remediation requirements have been required by this special permit. The pipeline operational integrity requirements are 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, cathodic protection effectiveness, operations damage prevention program for third party damage, weld seam and girth weld integrity, anomalies in the pipe steel, and material and structures either along or near the pipeline that could cause the cathodic protection system to be ineffective. PHMSA carefully designed a comprehensive set of conditions that GSPC would be required to meet in order for the special permit to be granted. Among other things, the conditions include:

- A CIS to determine the effectiveness of the cathodic protection system must be performed within the *special permit inspection area* and all areas with inadequate cathodic protection must be remediated within one (1) year of issuance of this special permit. Future CIS must be conducted in accordance with 49 CFR Part 192, subpart O reassessment intervals as contained in 49 CFR 192.937(a) and (b) and 192.939, not to exceed the 7-calendar year reassessment interval in accordance with 49 CFR 192.939(a).
- Coating surveys to determine the quality of the pipe coating must be conducted and ineffective coating areas must be remediated in the *special permit segment* no later than one (1) year after the grant of this special permit.
- An SCC engineering assessment that shows the pipeline in the *special permit inspection area* does not meet the criteria for either near neutral and high pH SCC.

- The latest methods of damage prevention must be incorporated by the operator, such as the best practices of the Common Ground Alliance within the *special permit inspection area*.
- Interference currents from parallel electric transmission lines and other interfering structures in the *special permit inspection area* must be identified, controlled and mitigated by conducting surveys and installing grounding systems where required.
- Anomalies and dents in the pipeline must be repaired based upon the special permit repair criteria.
- Girth welds in the *special permit segment* must have been inspected to a nondestructive test plan during construction, or a quality review and remediation program must be implemented by GSPC.
- All shorted casings, either metallic or electrolytic, at road and railroad crossings in the *special permit segment* must be cleared to prevent corrosion.
- Periodic CIS and ILI surveys (pipeline internal surveys to determine corrosion in the pipeline) must be performed on the *special permit segment* at the applicable reassessment intervals.
- ILI must be conducted through the *special permit segment* and *special permit inspection area* in accordance with 49 CFR Part 192, subpart O; 192.485; and the conditions of this special permit.
- GSPC must install and maintain line-of-sight markings on the pipeline in the *special permit inspection area* except in agricultural areas or large water crossings such as lakes where line-of-sight signage is not practical.
- GSPC must maintain data integration of all special permit condition findings and remediation in the *special permit inspection area*.
- For pipeline system flow reversals lasting longer than 90 days in a *special permit segment*, GSPC must prepare a written plan that corresponds to those applicable criteria identified in PHMSA Advisory Bulletin (ADB-2014-04), “Guidance for Pipeline Flow Reversals, Product Changes and Conversion of Service” issued on September 18, 2014, (79 FR 56121, Docket PHMSA-2014-0040).

- GSPC must evaluate the potential environmental consequences and affected resources of any land disturbances and water body crossings needed to implement the special permit conditions for a *special permit segment* or a *special permit inspection area* prior to the disturbance.
- GSPC must maintain documentation of compliance with all conditions of this special permit for the life of this special permit.

PHMSA has determined that imposing these conditions (along with the remainder of the conditions set forth in the special permit) will ensure that granting the special permit will not be inconsistent with safety.

Compliance History – January 1, 2008 through May 15, 2019: A review of PHMSA enforcement actions of Boardwalk Pipeline Partners (Boardwalk) from January 1, 2008 through May 15, 2019, shows the following closed enforcement actions against Boardwalk. GSPC is owned and operated by Boardwalk Pipeline Partners. Operator Identification Number (OPID#) is 31728 for the Index 330 Pipeline. Boardwalk operates the following pipeline systems that have had enforcement cases during the review interval:

OPID# 19270 -TEXAS GAS TRANSMISSION, LLC

OPID# 31554 - BOARDWALK PETROCHEMICAL PIPELINE, LLC

OPID# 31728 - GULF SOUTH PIPELINE COMPANY, LP

OPID# 32299 - GULF CROSSING PIPELINE COMPANY LLC

Below is a listing of PHMSA closed enforcement matters of all types in all PHMSA Regions for all Boardwalk pipelines from January 1, 2008 through May 15, 2019:

Total Number of Enforcement Cases – Boardwalk January 1, 2008 through May 15, 2019						
Case Status	Corrective Action Order	Notice of Amendment	Notice of Probable Violation	Safety Order	Warning Letter	Total Number of Cases
Closed	1	4	11	0	15	31
Open	0	0	1	1	0	2
Grand Total	1	4	12	1	15	33

Civil Penalty Status - Boardwalk for January 1, 2008 through May 15, 2019				
Proposed	Awaiting Order	Assessed	Withdrawn/Reduced	Collected
\$906,700	\$62,000	\$844,700	\$0	\$906,700

This enforcement history reveals some compliance issues, including pipeline operations and maintenance issues.

Based upon GSPC’s enforcement history indicating some non-compliance issues with 49 CFR Part 192, PHMSA concludes that a grant of a special permit requiring GSPC to meet 49 CFR Part 192 regulations and the special permit conditions will ensure the long term safety of the pipeline *special permit segment*. PHMSA has determined that imposing the special permit conditions will ensure that this grant will not be inconsistent with pipeline safety.

Findings:

Based on the information submitted by GSPC and PHMSA’s analysis of the technical, operational, and safety issues, and given the special permit conditions that will be implemented, PHMSA finds that granting this special permit to GSPC to operate a *special permit segment* (approximately 0.75 miles or 3,964 feet in length) of the Index 330 Pipeline where class location changes have occurred from a Class 1 to a Class 3 location and the MAOP is 974 psig is not inconsistent with pipeline safety.

Completed in Washington DC on: June 19, 2019

Prepared by: PHMSA OPS - Engineering and Research Division