

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-2019-0207
Requested By:	Gulf South Pipeline Company, LP
Operator ID#:	31728
Original Date Requested:	October 4, 2019
Original Issuance Date:	July 20, 2020
Effective Dates:	July 20, 2020 to July 20, 2030
Code Section(s):	49 CFR 192.611(a)

Purpose:

The Pipeline and Hazardous Materials Safety Administration (PHMSA)¹ provides this information to describe the facts of the subject special permit application submitted by Gulf South Pipeline Company, LP² (GSPC), 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. GSPC requested that PHMSA waive compliance from 49 Code of Federal Regulations (CFR) 192.611(a) for 214 feet of natural gas transmission 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.

Pipeline System Affected:

This special permit applies to the GSPC request for a waiver of the Class location change requirements in 49 CFR 192.611(a) for 214 feet of 42-inch diameter Index 817 Pipeline (Index 817 Pipeline) located in Madison Parish, Louisiana. This special permit allows GSPC to continue operating the *special permit segment*, defined below, at its current maximum allowable operating pressure (MAOP) of 1,456 pounds per square inch gauge (psig).³ The 214 feet of Class 1 to Class 3 location special permit pipeline does not meet 49 CFR 192.611(a). Without the special permit, 49 CFR 192.611(a) would require GSPC to replace the pipe segment or reduce the pipeline MAOP. The 214 feet of the 42-inch Index 817 Pipeline was hydrostatically tested to a minimum pressure of 1875 psig for 8 hours in late 2007, whereas 49 CFR 192.611(a) requires a minimum test pressure of 2,184 psig for a Class 3 location and the pipe design factor is greater than 60% of specified minimum yield strength.

Special Permit Request:

GSPC applied to PHMSA on October 4, 2019, for a special permit seeking relief from the Federal pipeline safety regulations in 49 CFR 192.611(a) for 214 feet of the 42-inch diameter Index 817 natural gas transmission pipeline, where a change has occurred from the original Class 1 location to a Class 3 location in Madison Parish, Louisiana.

The Index 817 Pipeline *special permit segment* is described below.

- This special permit applies to the *special permit segment* defined as follows using the GSPC Index 817 Pipeline survey station references:
 - *Special permit segment* – Index 817 Pipeline — 4,638 feet, Survey Station 9409+44 to Survey Station 9455+82 and is in Madison Parish, Louisiana.

³ This special permit is for a 214 feet segment of 42-inch diameter Index 817 Pipeline as requested by GSPC. The *special permit segment* includes additional pipeline footage beyond the 214 feet that extends the *special permit segment* for which the special permit conditions are applicable. **Condition 14** will allow extensions beyond the 214 feet of pipeline should the Class 3 location extend further. PHMSA has granted this special permit due to the 214 feet of 42-inch diameter pipe operating at a stress level of 65.2% of specified minimum yield strength (SMYS) based upon a 1,456 psig MAOP. Pipelines with a MAOP of over 72% SMYS are not allowed to operate in a Class 3 location. This special permit is not for pipe operating above 72% SMYS.

Note: GSPC's special permit request is for 214 feet from SS 9431+56 to SS 9433+70. All procedures, surveys, assessments, remediation, and assessment intervals required in the special permit conditions for the *special permit segment* are applicable on either side of the *special permit segment* end points for a distance of two (2) times the potential impact radius (PIR), as defined in 49 CFR 192.903. The PIR for a 42-inch diameter, 1,456 psig MAOP pipeline is 1,106 feet. Two (2) times the PIR would be 2,212 feet. The *special permit segment* total footage is 4,638 feet. PHMSA extended this special permit request from a 214-foot special permit segment to a 4,638-foot special permit segment since this pipeline has an Alternative MAOP special permit to operate up to 80% SMYS in Class 1 locations.

The Index 817 Pipeline *special permit inspection area* and high consequence areas (HCAs) are described below.

- *Special permit inspection area* is defined to mean - the area that extends 220 yards on each side of the centerline along approximately 35.1 miles of the Index 817 Pipeline from:
 - Survey station 8898+40 at Tallulah Compressor Station in Madison Parish, Louisiana to Station 10752+83 at a point located in Hinds County Mississippi. The Index 817 *special permit inspection area* extends approximately 35.1 miles (185,530 feet) including field survey equations. The *special permit inspection area* is in Madison Parish, Louisiana, and Warren and Hinds Counties, Mississippi.
- HCAs located in the *special permit inspection area* are at the following survey stations:
 - Survey Station 9918+57 to Station 9960+28 – 4,171 feet
 - Survey Station 10015+26 to Station 10043+50 – 2,824 feet
 - Survey Station 9850+98 to Station 9893+42 – 4,244 feet
 - Survey Station 9615+27 to Station 9652+61 – 3,724 feet

Attachments A and B on pages 12 and 13 of 13 are Index 817 Pipeline route maps showing the *special permit segment* and *special permit inspection area*.

Public Notice:

On February 7, 2020, PHMSA posted a notice of this special permit request in the Federal Register (85 FR 7388). The Federal Register notice period ended on March 8, 2020. The request letter, Federal Register notice, and all other pertinent documents are available for review in Docket No. PHMSA-2019-0207 in the FDMS located on the internet at www.regulations.gov.

PHMSA did not receive any comments from the Federal Register notice concerning the granting of this special permit with conditions to allow Class 1 design factor pipe to operate in a Class 3 location with an MAOP of 1,456 psig.

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 Maintenance (O&M) Manual and Procedures 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 1 to 3 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 214 feet of GSPC's Index 817 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 fusion bonded epoxy 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.
 - The 214 feet of GSPC requested *special permit segment* pipe is 42-inch diameter, 0.670-inch wall thickness, pipe strength of 70,000 psig and the pipe seam is a double submerged arc-welded seam. The 214 feet of *special permit segment* pipe operates at 65.2% SMYS at an MAOP of 1,456 psig. The remaining pipe in the expanded *special permit segment* and *special permit inspection area* is 42-inch diameter, 0.560-inch wall thickness, pipe strength of 70,000 psig and with a double submerged arc-welded pipe seam.
- 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 segments of the Index 817 Pipeline containing the *special permit segment* were hydrostatically tested in 2007 to a minimum of 1,875 psig for eight (8) hours. 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 2008, 2011, and 2018 using a high resolution (HR) magnetic flux leakage and HR-Deformation tools. 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 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 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 in accordance with 49 CFR 192.620 for an alternative MAOP pipeline. The *special permit inspection area* is approximately 35.1 miles of the Index 817 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 817 Pipeline.
- 8) Additional information: The *special permit segment* and *special permit inspection area* of the Index 817 Pipeline are composed of pipe manufactured in 2008 with a double submerged arc weld seam.
- 9) Additional information: GSPC must continue to implement the Alternative MAOP (PHMSA-2006-26533) special permit conditions. The special permit conditions in PHMSA-2019-0207 apply when they are more conservative or not required in special permit PHMSA-2006-26533.

The *special permit segment* meets the threshold requirements; however, certain required ILI tool runs, anomaly remediation, and other integrity surveys are 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 817 Pipeline *special permit inspection area* has had no mainline pipe or seam failures.
- 2) No anomalies were found in the 2018 ILI tool run that require investigation and remediation. The special permit will require GSPC to remediate all anomalies in the Index 817 Pipeline *special permit inspection area* and *special permit segment* that does not meet the special permit conditions.

This places the *special permit segment* in the “probable 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 and 192.620. GSPC must implement the Alternative MAOP (PHMSA-2006-26533) *special permit segment* conditions for this *special permit segment* (PHMSA-2019-0207).

- 1) PHMSA will require GSPC to implement the special permit conditions and to certify completion in **Special Permit Condition 15** 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 Procedures 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 (summarized):

- 1) **Condition 1 - Maximum Allowable Operating Pressure for the Special Permit:**
GSPC must operate the *special permit segment* and *special permit inspection area* at or below the Index 817 Pipeline MAOP of 1,456 psig.
- 2) **Condition 2 – Integrity Management Program:** GSPC must incorporate the *special permit segment* and *special permit inspection area* into its written integrity management program in accordance with 49 CFR Part 192, Subpart O.
- 3) **Condition 3 – Operations and Maintenance Manual:** The special permit conditions must be included in GSPC’s O&M Manual and Procedures including all required assessments and reassessments.
- 4) **Condition 4 – Close Interval Surveys:** A Close Interval Survey (CIS) to determine the effectiveness of the cathodic protection system must be performed within the *special permit segment* and *special permit inspection area*. 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).
- 5) **Condition 5 – Cathodic Protection Test Station:** At least one (1) cathodic protection (CP) pipe-to-soil test station must be located within the *special permit segment* with a maximum spacing of ½ mile between test stations.
- 6) **Condition 6 – Annual Cathodic Protection Test Station Readings:** If any annual CP test station readings on the *special permit inspection area* fall below 49 CFR Part 192, Subpart I, requirements, remediation must occur within six (6) months of the survey and must include a CIS on each side of the affected test station to the next test station. GSPC must implement corrosion system modifications that are identified through the CP test station readings and remediation findings to ensure corrosion control.
- 7) **Condition 7 - Interference Currents Control:** Control of induced alternating current

(AC) from parallel electric transmission lines and other interference issues in the *special permit inspection area*, that may affect the pipeline, must be incorporated into the operations of the pipeline and addressed. An induced AC program to protect the pipeline from corrosion caused by stray currents must be in place within one (1) year of the date of this special permit.

- 8) **Condition 8 - Anomaly Assessment and Remediation:** GSPC must conduct anomaly assessments using ILI that meets the assessment intervals and remediation requirements of: (a) 49 CFR Part 192, Subpart O; (b) Special Permit PHMSA-2006-26533, **Condition 43**, for the Index 817 Pipeline; and (c) 49 CFR 192.620(d)(11), whichever assessment response has a shorter repair timing or more conservative anomaly remediation requirements. Any anomaly within the *special permit inspection area* with a depth equal to or greater than 40% wall thickness loss must be remediated within one-year of finding the anomaly.
- 9) **Condition 9 – Damage Prevention Program:** GSPC must ensure its damage prevention program incorporates the applicable best practices of the Common Ground Alliance within the special permit inspection area.
- 10) **Condition 10 – Annual Report to PHMSA:** Once each year, no later than 15 months, after the grant of this special permit, GSPC must submit an annual pipeline integrity report to the Director, PHMSA, Central Region, summarizing any significant integrity threats as detailed in the special permit.
- 11) **Condition 11 - Special Permit Specific Conditions:**
 - Line-of-Sight Markers, Data Integration, Pipeline Patrolling, Environmental Assessments and Permits, and Root Cause Analysis for Failure or Leak
- 12) **Condition 12 - Mainline Valve – Monitoring and Remote Control for Leaks or Ruptures:** GSPC must maintain a supervisory control and data acquisition system and must automate the nearest existing mainline valves on both sides of the *special permit segment* for closure, or demonstrate capability to manually close the mainline valves in accordance with the requirements of the special permit.
- 13) **Condition 13 – Documentation:** GSPC must maintain documentation of compliance with all conditions of this special permit for the life of this special permit.

- 14) **Condition 14 - Extension of the Special Permit Segment**: PHMSA may extend the original *special permit segment* to include contiguous segments of the Index 817 Pipeline up to the limits of the *special permit inspection area* pursuant to the following conditions. The *special permit segment* cannot be extended into pipe operating at over a 72% of specified minimum yield strength.
- 15) **Condition 15 – Certification**: A GSPC senior executive officer, vice president or higher, must certify in writing the following:
- The special permit segment and special permit inspection area meet the conditions described in this special permit;
 - The written manual of O&M procedures required by 49 CFR 192.605 for the GSPC Index 817 Pipeline has been updated to include all additional operating and maintenance requirements of this special permit; and
 - GSPC has implemented all conditions as required by this special permit.
- 16) The Special Permit with conditions and the “Final Environmental Assessment and Finding of No Significant Impact” document can be read in their entirety in Docket No. PHMSA-2019-0207 in the Federal Docket Management System (FDMS) located on the internet at www.regulations.gov.

PHMSA has determined that imposing these conditions will ensure that granting the special permit will not be inconsistent with safety.

Past Enforcement History – January 1, 2010 through April 30, 2020:

Since January 1, 2010, through April 30, 2020, Boardwalk and GSPC were cited in 30 enforcement cases with a total of \$706,700 in assessed civil penalties. PHMSA initiated four (4) Notice of Amendments, ten (10) Notices of Probable Violations, fourteen (14) Warning Letters, one (1) Safety Order and one (1) Corrective Action Orders against Boardwalk Pipeline Partners and GSPC.

Below is a table of PHMSA enforcement matters of all types in all PHMSA Regions for Boardwalk/GSPC (Operator identification # (OPID#) 19270, 31554, 31728, 32299) from January 1, 2010, through April 30, 2020:

- Texas Gas Transmission, LLC (OPID# 19270)
- Boardwalk Petrochemical Pipeline, LLC (OPID# 31554)
- Gulf South Pipeline Company, L.P. (OPID# 31728)
- Gulf Crossing Pipeline Company, LLC (OPID# 32299)

Status	Corrective Action Order	Notice of Amendment	Notice of Probable Violation	Safety Order	Warning Letter	Total
CLOSED	1	4	10	0	14	29
OPEN	0	0	0	1	0	1
Total	1	4	10	1	14	30

The limitations section of the special permit requires a reapplication and review of the GSPC special permit on a periodic basis. PHMSA may revoke, suspend or modify the GSPC special permit based on any finding listed in 49 CFR 190.341(j)(1) and require GSPC to comply with the regulatory requirements in 49 CFR 192.611(a). As provided in 49 U.S.C. Chapter 601 and 49 CFR Part 190, PHMSA may also issue an enforcement action for failure to comply with the special permit. Any work plans and associated schedules must be automatically incorporated into the GSPC special permit and are enforceable in the same manner.

PHMSA has determined that imposing the conditions and limitations summarized in this document will ensure that granting the special permit for non-odorization for the *special permit segment* will be consistent with safety.

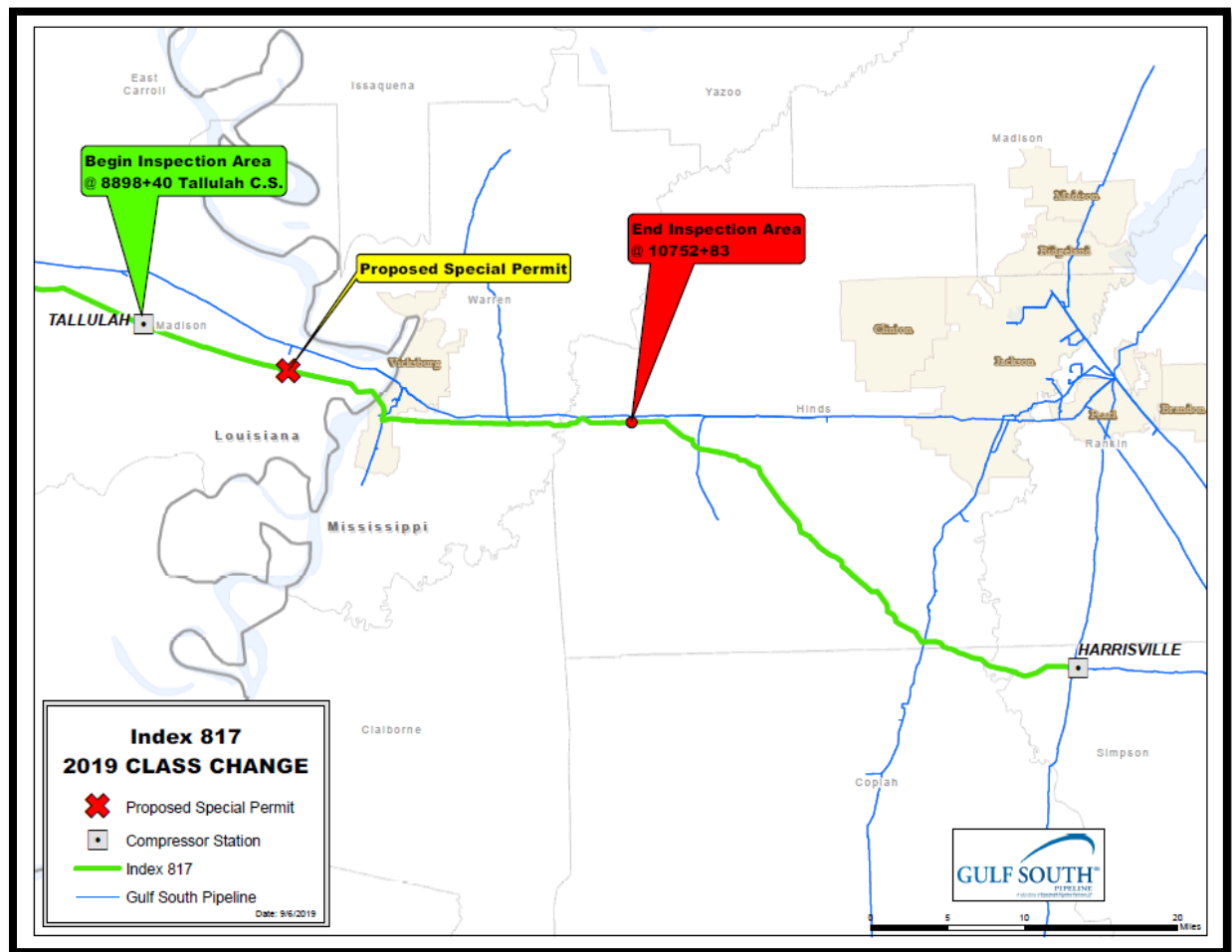
Findings:

Based on the information submitted by GSPC and PHMSA's analysis of the technical, operational, and safety issues, and given the conditions that will be imposed in the special permit, PHMSA finds that granting this special permit to GSPC to operate the 42-inch diameter Index 817 Pipeline *special permit segment* located in Madison Parish, Louisiana, with 214 feet of Class 1 location pipe in a Class 3 location would not be inconsistent with pipeline safety.

Completed in Washington DC on: July 20, 2020

Prepared by: PHMSA OPS - Engineering and Research Division

**Attachment A – 42-inch Index 817 Route Map
Special Permit Segment and Inspection Area**



Attachment B – 42-inch Index 817 Route Map Special Permit Segment

