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

ENVIRONMENTAL ASSESSMENT
and
FINDING OF NO SIGNIFICANT IMPACT

Special Permit Information:

Docket Number:	PHMSA-2007-0039
Requested By:	Gulf South Pipeline Company, LP
Operator ID#:	31728
Original Date Requested:	September 13, 2007
Original Issuance Date:	February 27, 2009
Modifications of Segments:	June 30, 2010, April 16, 2013 and June 17, 2014
Updated Request:	December 28, 2017
Effective Dates:	May 29, 2018 to May 29, 2028
Code Section(s):	49 CFR 192.611(a)

I. Background

The National Environmental Policy Act (NEPA), 42 United States Code (USC) §§ 4321 – 4375, Council on Environmental Quality regulations, 40 Code of Federal Regulations (C.F.R. or CFR) §§ 1500-1508, and U.S. Department of Transportation (DOT) Order 5610.1C, requires the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS)[1] to analyze a proposed action to determine whether the action will have a significant impact on the human environment. PHMSA analyzes special permit requests for potential risks to public safety and the environment that could result from our decision to grant, grant with additional conditions, or deny the request. As part of this analysis, PHMSA evaluates whether a special permit would impact the likelihood or consequence of a pipeline failure as compared to

[1] Throughout this document 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.

the operation of the pipeline in full compliance with the Pipeline Safety Regulations. PHMSA's environmental review associated with the special permit application is limited to impacts that would result from granting or denying the special permit. PHMSA developed this assessment to determine what effects, if any, our decision would have on the environment.

Pursuant to 49 U.S.C. § 60118(c) and 49 Code of Federal Regulations (C.F.R. or CFR) 190.341, PHMSA may only grant special permit requests that are not inconsistent with pipeline safety. PHMSA will impose conditions in the special permit if we conclude they are necessary for safety, environmental protection, or are otherwise in the public interest. If PHMSA determines that a special permit would be inconsistent with pipeline safety or is not justified, the application will be denied.

The purpose of this final environmental assessment (FEA) is to comply with NEPA for the Gulf South Pipeline Company, LP (GSPC)[2,3] application for a special permit request to waive compliance from 49 CFR 192.611 (a) for 11.45 miles of 30-inch diameter gas transmission pipeline segments in Mobile County, Alabama. This FEA and finding of no significant impact was prepared by PHMSA to assess the pipeline special permit request, in accordance with 49 CFR 190.341, and is intended to specifically analyze any environmental impact associated with the waiver of certain Pipeline Safety Regulations found in 49 CFR Part 192. This permit, as approved, would implement additional conditions on the operations, maintenance, and integrity management of the 11.45-mile, 30-inch-diameter natural gas transmission pipeline.

II. Introduction

Pursuant to 49 U.S.C. § 60118(b) and 49 CFR 190.341, GSPC submitted a special permit petition to PHMSA on December 28, 2017, requesting that it waive the requirements of 49 CFR 192.611 for a class 1 location to class 3 location change by implementing alternative risk and integrity management procedures for the ***special permit segment*** located on GSPC Line TPL-880 located in Mobile County, Alabama.

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

[3] The PHMSA operator identification number (OPID) for GSPC is: OPID 31728.

PHMSA may issue a special permit to waive certain regulatory requirements where it is not inconsistent with pipeline safety and which is typically contingent on the performance of additional measures beyond minimum PHMSA pipeline safety regulations, in accordance with 49 CFR 190.341.

III. Regulatory Background

PHMSA regulations at 49 CFR 192.611(a) require a segment upgrade or pressure reduction when the pipeline class location changes from a class 1 to class 3 location, due to population density increase near the pipeline. Below is the relevant text of 49 CFR 192.611(a):

§ 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

(a) If the hoop stress corresponding to the established maximum allowable operating pressure of a segment of pipeline is not commensurate with the present class location, and the segment is in satisfactory physical condition, the maximum allowable operating pressure of that segment of pipeline must be confirmed or revised according to one of the following requirements:

(1) If the segment involved has been previously tested in place for a period of not less than 8 hours:

(i) The maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations, 0.667 times the test pressure in Class 3 locations, or 0.555 times the test pressure in Class 4 locations. The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(ii) The alternative maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations and 0.667 times the test pressure in Class 3 locations. For pipelines operating at alternative maximum allowable pressure per §192.620, the corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.

(2) The maximum allowable operating pressure of the segment involved must be reduced so that the corresponding hoop stress is not more than that allowed by this part for new segments of pipelines in the existing class location.

3) The segment involved must be tested in accordance with the applicable requirements of subpart J of this part, and its maximum allowable operating pressure must then be established according to the following criteria:

(i) The maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations, 0.667 times the test pressure for Class 3 locations, and 0.555 times the test pressure for Class 4 locations.

(ii) The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(iii) For pipeline operating at an alternative maximum allowable operating pressure per §192.620, the alternative maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations and 0.667 times the test pressure for Class 3 locations. The corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.

IV. Purpose and Need

GSPC requested a special permit in order to avoid replacement of three (3) pipeline segments located on transmission pipeline (TPL) 880 in Mobile County, Alabama where the class location has changed from Class 1 to Class 3, and to include additional areas that may experience further development and class change in the near future. This special permit will: 1) combine three (3) existing ***special permit segments*** into one (1) ***special permit segment***, 2) account for future likely population growth, and 3) waive the requirements of 49 CFR 192.611.

TPL 880 is a 25.50-mile steel pipeline lateral that transports natural gas from a point onshore of the Gulf of Mexico to other pipelines located in Alabama. The 30-inch diameter TPL 880 pipeline was installed in 1992.

GSPC, a subsidiary of Boardwalk Pipeline Partners, LP, will apply alternative risk control measures to a 11.45-mile long segment of TPL-880 in order to allow blanket approval for future class changes in the segment area. Contingent upon receipt of a new special permit, GSPC requested PHMSA to release the special permit (PHMSA-2007-0039) for three (3) existing pipe segments.

Special permit PHMSA-2007-0039 was initially granted in 2009 and was subsequently revised to extend the segment lengths in 2010, 2013, and 2014 as class increased in this area along the pipeline. On December 28, 2017, GSPC submitted an application requesting the approval of another extension of an existing ***special permit segment***.

Original *special permit segments* issued on February 27, 2009:

- ***Special permit segment 1*** - TPL-880— 3362 feet, Survey Station 1168+87 to Survey Station

1199+75.[4]

- ***Special permit segment 2*** - TPL-880 - 301 feet, Survey Station 674+46 to Survey Station 677+47.
- ***Special permit segment 3*** - TPL-880 - 46 feet, Survey Station 699+77 to Survey Station 700+23.

Modifications on June 30, 2010 extended special permit segment 1:

- ***Special permit segment 1*** - TPL-880— Total 3389 feet, 9 feet, Survey Station 1168+78 to Survey Station 1168+87 and 8 feet, Survey Station 1199+75 to Survey Station 1199+83.

Modifications on April 16, 2013 and June 17, 2014 extended *special permit segment 3*:

- ***Special permit segment 3*** - TPL-880 - 135 feet, Survey Station 700+23 to Survey Station 701+58.
- ***Special permit segment 3*** - TPL-880 - 309 feet, Survey Station 701+58 to Survey Station 704+67.

Modification proposed on December 28, 2017 for issuance of a combined *special permit segment*:

- The TPL-880 pipeline ***special permit segment*** extends approximately 11.45 miles (60,496 feet), which includes field survey equations. The new ***special permit segment*** definition includes all of original ***special permit segments 1 through 3*** and past modifications to ***special permit segments 1 and 3***. The new combined TPL-880 ***special permit segment*** extends from TPL-880 Survey Station 632+60 to Survey Station 1201+68 (60,496 feet)[5] in Mobile County, Alabama

Special permit inspection area is defined to mean - the area that extends 220 yards on each side of the centerline along the entire 24.28 miles[6] of the TPL-880 pipeline from: TPL-880: survey

[4] The survey station distance difference of 273 feet is due to a survey equation as follows: Survey Station 1197+27 Ahead = 1200+00 Back.

[5] TPL-880 ***special permit segment*** total length is 60,496 feet which includes two (2) field survey equations of 3,587 feet at: Back (BK) Survey Station (SS) 944+18 = Ahead (AH) SS 940+45 and BK SS 1132+70 = AH SS 1100+55.

[6] The 24.28 miles takes into account survey stationing equations along the pipeline. The entire length of the TPL-880 pipeline is 25.50 miles.

station 00+00 (pig launcher) to survey station 1201+68 at Airport Compressor Station located in Mobile County, Alabama. The TPL-880 ***special permit inspection area*** extends approximately 24.28 miles (128,199 feet) including field survey equations. The ***special permit inspection area*** is located in Mobile County, Alabama. The ***special permit inspection area***[7] includes the modified ***special permit segment***.

The purpose of the special permit is to waive the requirements of 49 CFR 192.611, allowing GSPC to avoid replacing existing pipe by applying alternative risk control measures to a 11.45-mile long segment of TPL-880. This permit allows GSPC blanket approval for future class location changes in the ***special permit segment***, eliminating duplicate work for future permit extensions for both GSPC and PHMSA. Contingent upon receipt of a new special permit, GSPC requests to release the special permit (PHMSA-2007-0039) for three (3) existing pipe segments. There are no existing or reasonably foreseeable requests connected to this action.

V. Site Description

The 30-inch diameter TPL-880 pipeline is located in Mobile County, Alabama. The area consists primarily of single dwelling rural homes, with a total of 317 residences, 5 businesses and other outside areas in the 11.45-mile ***special permit segment***.

The ***special permit inspection area*** contains two High Consequence Areas (HCA). The HCAs are calculated by Method 2 (49 CFR 192.903) and are caused by 20+ dwellings adjacent to the pipeline.

VI. Special Permit Segment and Special Permit Inspection Area

The original, approved modifications, and proposed on February 27, 2009, June 30, 2010, April 16, 2013, June 17, 2014, and December 28, 2017 (approved by this grant) to the special permit applied to the following ***special permit segments*** defined using the GSPC TPL-880 pipeline survey station references as follows:

Original *special permit segments* issued on February 27, 2009:

[7] ***Special permit inspection areas*** throughout these conditions include the ***special permit segment*** unless specifically defined as not applicable or if the ***special permit segment*** has more stringent conditions.

- ***Special permit segment 1*** - TPL-880— 3362 feet, Survey Station 1168+87 to Survey Station 1199+75.[8]
- ***Special permit segment 2*** - TPL-880 - 301 feet, Survey Station 674+46 to Survey Station 677+47.
- ***Special permit segment 3*** - TPL-880 - 46 feet, Survey Station 699+77 to Survey Station 700+23.

Modifications on June 30, 2010 extended special permit segment 1:

- ***Special permit segment 1*** - TPL-880— Total 3389 feet, 9 feet, Survey Station 1168+78 to Survey Station 1168+87 and 8 feet, Survey Station 1199+75 to Survey Station 1199+83.

Modifications on April 16, 2013 and June 17, 2014 extended *special permit segment 3*:

- ***Special permit segment 3*** - TPL-880 - 135 feet, Survey Station 700+23 to Survey Station 701+58.
- ***Special permit segment 3*** - TPL-880 - 309 feet, Survey Station 701+58 to Survey Station 704+67.

Modification proposed on December 28, 2017 for issuance of a combined *special permit segment*:

- The TPL-880 pipeline ***special permit segment*** extends approximately 11.45 miles (60,496 feet), which includes field survey equations. The new ***special permit segment*** definition includes all of original ***special permit segments 1 through 3*** and past modifications to ***special permit segments 1 and 3***. The new combined TPL-880 ***special permit segment*** extends from TPL-880 Survey Station 632+60 to Survey Station 1201+68 (60,496 feet)[9] in Mobile County, Alabama.

[8] The survey station distance difference of 273 feet is due to a survey equation as follows: Survey Station 1197+27 Ahead = 1200+00 Back.

[9] TPL-880 ***special permit segment*** total length is 60,496 feet which includes two (2) field survey equations of 3,587 feet at: Back (BK) Survey Station (SS) 944+18 = Ahead (AH) SS 940+45 and BK SS 1132+70 = AH SS 1100+55.

Special permit inspection area is defined to mean - the area that extends 220 yards on each side of the centerline along the entire 24.28 miles[10] of the TPL-880 pipeline from: TPL-880: survey station 00+00 (pig launcher) to survey station 1201+68 at Airport Compressor Station located in Mobile County, Alabama. The TPL-880 ***special permit inspection area*** extends approximately 24.28 miles (128,199 feet) including field survey equations. The ***special permit inspection area*** is located in Mobile County, Alabama. The ***special permit inspection area***[11] includes the modified ***special permit segment***.

VII. ADDITIONAL DESIGN, CONSTRUCTION, OPERATIONS & MAINTENANCE REQUIREMENTS

To provide an equivalent level of safety in the absence of either lowering the pipeline operating pressure or upgrading the pipe, the special permit has additional operations and maintenance requirements (conditions) which are intended to decrease the likelihood of a release of gas. PHMSA believes that these additional measures designed to prevent leaks and ruptures will ensure an equivalent level of safety. The special permit conditions are reviewed below:

Overview of the Special Permit Conditions:

A. Maximum Allowable Operating Pressure: GSPC must continue to operate the ***special permit segment*** at or below their existing MAOP of 1073 psig for the TPL-880 pipeline.

B. Integrity Management Program: GSPC must incorporate the ***special permit segment*** into its written integrity management program (IMP) as a "covered segment" in a "high consequence area (HCA)" in accordance with 49 CFR 192.903[12], except for the reporting requirements contained in 49 CFR 192.945.

[10] Survey station 0+00 to survey station 1201+68 has a calculated mileage of 22.76 miles, but field survey station equations make the actual mileage 24.28 miles (128,199 feet).

[11] ***Special permit inspection areas*** throughout these conditions include the ***special permit segment*** unless specifically defined as not applicable or if the ***special permit segment*** has more stringent conditions.

[12] GSPC is not required to report the mileage included as part of this special permit in its annual report in accordance with the requirements of 49 CFR 191.17, unless it is in a high consequence area.

C. **<u>Close Interval Surveys</u>**: GSPC must perform a close interval survey (CIS) of the TPL-880 pipeline along the entire length of the ***special permit inspection area***[13] no later than one (1) year after the modification of this special permit and remediate any areas of inadequate cathodic protection. A CIS and remediation need not be performed if GSPC has performed a CIS and remediation[14] on the TPL-880 along the entire length of the ***special permit inspection area*** less than four (4) years prior to the modification of this special permit.

D. **<u>Close Interval Surveys – Reassessment Interval</u>**: GSPC must perform periodic CIS of the ***special permit segment*** at the applicable reassessment interval(s) for a "covered segments" determined in concert and integrated with in-line inspection (ILI) 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 a seven (7) year reassessment interval. CIS data must be integrated with in-line inspection (ILI) data.

E. **<u>Stress Corrosion Cracking Direct Assessment</u>**: Should GSPC find stress corrosion cracking (SCC) on TPL-880 pipeline, GSPC must evaluate the TPL-880 pipeline along the entire length of the ***special permit segments*** for stress corrosion cracking (SCC).

F. **<u>O&M Manual – In-line Inspections, Close Interval Survey Inspections, and Reassessment Intervals</u>**: GSPC must amend applicable sections of its operations and maintenance (O&M) manual(s) to incorporate the inspection and reassessment intervals by in-line inspection (ILI) including both high resolution metal loss and deformation/geometry tools of the TPL-880 pipelines along the entire length of the ***special permit inspection area*** at a frequency consistent with 49 CFR Part 192, Subpart O, but not to exceed a seven (7) year reassessment interval.

G. **<u>Close Interval Survey Intervals in O&M Manuals</u>**: GSPC must amend applicable sections of its O&M manual(s) to incorporate the inspection and reassessment intervals

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[13] Each condition in this special permit that requires GSPC to perform an action with respect to the ***special permit inspection areas*** shall also require GSPC to perform that action on all ***special permit segments*** within such areas, unless there is a condition that is more stringent.

[14] The terms "remediate" or "remediation" of pipe coating shall include repair of damaged external pipe coating, where required to maintain cathodic protection of the pipeline in accordance with 49 CFR 192.463.

by CIS of the TPL-880 ***special permit segment*** at a frequency consistent with 49 CFR Part 192, Subpart O.

H. **Inline Inspection**: The assessments of the TPL-880 pipelines along the entire length of the ***special permit inspection area*** using ILI must conform to the required maximum reassessment intervals specified in 49 CFR 192.939.

I. **Integrity Reassessment Intervals**: GSPC must schedule ILI reassessment dates for the TPL-880 pipeline ***special permit inspection area*** according to 49 CFR 192.939 intervals by adding the required time interval to the previous assessment date.

J. **Damage Prevention Program**: GSPC's damage prevention program must incorporate the applicable best practices of the Common Ground Alliance (CGA) within the ***special permit inspection area***.

K. **Field Activity Notices to PHMSA**: GSPC must give a minimum of 14-day notice to the Director, PHMSA OPS Southern Region to enable PHMSA to observe the excavations relating to Conditions related to field activities in the ***special permit segments***.

L. **HCA Assessments**: GSPC must not let this special permit impact or defer any of the operator's assessments for HCAs under 49 CFR Part 192, Subpart O.

M. **Annual Report to PHMSA**: GSPC must provide an annual report of identified activities and integrity findings to PHMSA and post on the docket for public review.

N. **Cathodic Protection Test Stations**: At least one (1) cathodic protection (CP) pipe-to-soil test station must be located within each HCA with a maximum spacing between test stations of one-half mile within an HCA.

O. **Annual CP Test Station Readings**: If any annual CP test station readings on the TPL-880 within the ***special permit segment*** fall below 49 CFR Part 192, Subpart I requirements, remediation must occur within six (6) months and include a CIS on each side of the affected test station to the next test station and any identified corrosion system modifications to ensure corrosion control.

P. **Field Coating**: The coatings used on the pipeline and girth weld joints in the ***special permit segment*** must be non-shielding to CP.

Q. **Anomaly Evaluation and Repair**: GSPC must account for ILI tool tolerance and corrosion growth rates in scheduled response times and repairs and document and justify the values used. Repair criteria will apply to all anomalies located on the TPL-880 pipeline within the ***special permit segment*** and ***special permit inspection area*** when they have been evaluated, excavated, or investigated in accordance with 49 CFR 192.485 and 192.933, and in the ***special permit segment*** using a failure pressure ratio based upon pipeline Class location and anomaly depth greater than 40% of pipe wall thickness.

R. **Girth Welds**: GSPC provided records to PHMSA demonstrating girth welds on the TPL-880 pipeline were nondestructively tested at the time of construction.

S. **Pipe Casings**: GSPC must identify all shorted casings within the ***special permit segments*** no later than six (6) months after the grant of this special permit and classify any shorted casings as either having a "metallic short" (the carrier pipe and the casing are in metallic contact) or an "electrolytic short" (the casing is filled with an electrolyte) using a commonly accepted method such as the Panhandle Eastern, Pearson, DCVG, ACVG or AC Attenuation.

T. **Pipe Seam Evaluations**: GSPC must identify any pipeline in a ***special permit inspection area*** that may be susceptible to pipe seam issues because of the vintage of the pipe, the manufacture of the pipe, or other issues.

U. ***Special Permit Segment*** **Specific Conditions**: GSPC must comply with the following requirements.

a. **Line-of-Sight Markers:** 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.

b. **Data Integration**: GSPC must maintain data integration of special permit condition findings and remediation in the ***special permit inspection area***.

c. **Pipe Properties Testing**: GSPC must test the pipe in the ***special permit segment*** that does not have pipe properties documented by conducting non-destructive or destructive tests, examinations, and assessments for any ***special permit segment*** without pipe material records.

d. **Pipeline System Flow Reversals**: For pipeline system flow reversals exceeding 90 days where either 49 CFR 192.619(a)(1) or 192.611 MAOP for class location changes are exceeded[15] 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-2014-0400).

e. **Environmental Assessments and Permits**: 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. If a land disturbance or water body crossings is required, GSPC must obtain and adhere to all applicable (Federal, State, and Local) environmental permit requirements when conducting the special permit conditions activity

V. Documentation: GSPC must maintain the following records for each ***special permit segment*** and ***special permit inspection area:*** pressure test, pipe properties, and compliance with the special permit conditions.

W. Extension of Special Permit Segments: PHMSA may extend the original ***special permit segment*** to include contiguous segments of the TPL-880 pipeline up to the limits of the ***special permit inspection area***.

X. Certification: A senior executive officer, vice president or higher, of GSPC must certify in writing the following:

a. GSPC pipeline ***special permit inspection area*** and ***special permit segment*** meet the conditions described in this special permit,

[15] An example of exceedance of 49 CFR 192.619(a)(1) is a Grandfathered MAOP which has a design factor above 0.72. An example of exceedance of 49 CFR 192.611 is a Class 1 to 3 location change.

b. The written manual of O&M procedures for the GSPC pipeline has been updated to include all additional operating and maintenance requirements of this special permit; and

c. GSPC has implemented all original conditions and the conditions of this modification as required by this special permit.

GSPC must send the certifications required in this Condition with completion date, compliance documentation summary, and the required senior executive signature and date of signature to PHMSA.

Y. <u>Limitations</u>:

a. PHMSA has the sole authority to make all determinations on whether GSPC has complied with the specified conditions of this special permit.

b. Failure to submit the certifications required by the special permit conditions within the time frames specified may result in revocation of this special permit.

c. PHMSA may revoke, suspend or modify a special permit based on any finding listed in 49 CFR 190.341(h)(1) and require GSPC to comply with the regulatory requirements in 49 CFR 192.611. 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 this Order. Any work plans and associated schedules shall be automatically incorporated into this order and are enforceable in the same manner.

VIII. Alternatives

PHMSA's review of the potential alternatives is limited to review of the special permit and possible alternatives as well as associated impacts to ***special permit segment.***[16] In terms of the potential alternatives for PHMSA action, the options include **(1)** do nothing/PHMSA denies the requested special permit, in which case the GSPC TPL-880 pipeline and its operation would need to be fully compliant with 49 CFR 192.611(a) or **(2)** grant the requested special permit and

[16] ***Special permit segment*** starts at the GSPC TPL-880 pipeline, survey station 632+60 at Interstate 10, and ends at the Airport Compressor Station survey station 1201+68, and includes approximately 11.45 miles (60,496 feet)) of 30-inch diameter pipeline.

impose additional operations and maintenance including integrity management activities beyond those required under 49 CFR Part 192.

ALTERNATIVES

Alternative 1: "Do Nothing" Alternative

The "no action" alternative would entail full compliance with existing regulations, specifically 49 CFR 192.611(a). This provision requires pressure reduction, pressure testing or pipe replacements to address the class location changes when the pipeline is not commensurate with the new class location. The use of stronger pipe is intended to decrease risks of failure posed to population in the vicinity of the pipeline. If the special permit application is denied, then GSPC would be required to replace pipe in the current and future class change areas in order to maintain the current Maximum Allowable Operating Pressure (MAOP). Existing special permits (PHMSA-2007-0039) would be rescinded.

Alternative 2: Selected Alternative

PHMSA has selected this alternative to replace the three (3) existing ***special permit segments*** with one (1) ***special permit segment*** over the entire 11.45 miles Inspection Area, in order to include areas that may experience further class 1 to class 3 changes in the near future and take advantage of inspections GSPC is already doing. The current MAOP of the pipeline would be maintained in this alternative.

Extending the ***special permit segment***s would avoid possible construction-related inconveniences for homeowners located near the affected areas and would avoid service disruptions that could result from taking the line out of service during replacement activities. The ***special permit segment*** would implement the conditions of the special permits alternative risk control activities to maintain pipe integrity and safety in the 11.45-mile special permit segment. GSPC will comply with the Federal Energy Regulatory Commission (FERC) Environmental Guidelines and all Federal, state and county permitting requirements in performing the alternative risk control activities.

IX. AFFECTED RESOURCES AND ENVIRONMENTAL CONSEQUENCES

A. Affected Resources and Environmental Consequences of the Selected Action and the No Action Alternatives

Aesthetics: This alternative to extend the new ***special permit segment*** would have no impact on the visual character of the ***special permit segment*** right-of-way. The "no action alternative" would require the removal of the existing pipe and installation of a new pipe. This would result in the use of heavy equipment and ground disturbance. Therefore, the issuance of the modified special permit would result in less aesthetic impacts to the affected area.

Agricultural Resources: The right-of-way of the ***special permit segment*** is within a residential area and land mowed and maintained as pasture. A new ***special permit segment*** would not impact any agricultural resources. If the permit is not granted then pipe replacement would be required, which may disturb agricultural resources and operations.

Air Quality*:* A modified ***special permit segment*** would not affect the air quality of the ***special permit inspection area***. If the permit is not granted pipe replacement would be required, which would necessitate blowing down the pipeline releasing natural gas, a known greenhouse gas. The no action alternative would also require the temporary use of heavy equipment, which result in emissions.

Biological Resources: The primary wildlife habitat occurring within, and in the vicinity of the ***special permit inspection area*** includes agricultural and residential land, and forested areas. Granting the special permit would not result in modifications to any habitat, or impact wetlands or waterbodies, and would have no effect on fishery resources or essential fish habitats (EFH).

No area within the new ***special permit segment*** is designated as sensitive wildlife habitat. The area does not cross any land administered by federal, state, or local agencies, or non-governmental organizations that could provide sensitive wildlife habitat. No lands enrolled in the Conservation Reserve Program (CRP) or the Wetland Reserve Program (WRP), both administered by the Natural Resource Conservation Service (NRCS), would be affected by granting this special permit.

Any activities, including excavations for tool data confirmation or pipeline repairs related to the news ***special permit segment*** would be conducted within the boundaries of the previously disturbed pipeline right-of-way. On an annual basis, GSPC submits a written request to the United States Fish and Wildlife Service Daphne Field Office (Service) for categorical exclusion for pipeline maintenance activities to be undertaken within its existing, previously disturbed right-of-way to ensure compliance with Section 7 of the Endangered Species Act (ESA). The ESA requires federal agencies or private actors to take into account the effects of their undertakings on protected species. The Alabama Service concurred with its categorical exclusion for work within existing right-of-way.

Climate Change*:* The scope and duration of any activities associated with the new ***special permit segment*** would have no impact on climate change. If the permit is not granted pipe replacement would be required, which would necessitate blowing down the pipeline releasing natural gas, a known greenhouse gas.

Cultural Resources: Any activities associated with the new ***special permit segment*** would be conducted within the boundaries of the previously disturbed pipeline right-of-way. On an annual basis, GSPC submits a written request to the Alabama SHPO for categorical exclusion for activities to be undertaken within its existing, previously disturbed right-of-way to ensure compliance with the National Historic Preservation Act of 1966, as amended (NHPA). Section 106 requires federal agencies or their applicants to take into account the effects of their undertakings on historic structural and archaeological properties. The Alabama SHPO concurred with its categorical exclusion for work within existing right-of-way and stated that "no known historic properties will be affected by this undertaking."

Environmental Justice*:* According to US Census data, Mobile County has 42.7% minority population with 35.8% Black or African American. The median household income is $44,263, with 19.5% of the population in poverty. The special permit will not disproportionately impact any minority, non-English language, or impoverished populations. The work associated with this special permit will not have an adverse impact on the local population. Based on U.S. Census data from 2011-2015 for Mobile County, the average residence has 2.62 people per house. With 317 residences, 5 businesses and other outside areas location along the pipeline in

the 11.45-mile ***special permit inspection area***, the increased safety measures associated with the special permit would benefit an estimated 910 people. If the special permit is not granted, then pipe replacement will be required in the class 3 location areas. With approximately 62 houses in the current class 3 location areas, there are estimated 163 people who would benefit from increased safety associated with pipe replacement.

Geology, Soils, and Mineral Resources: The new ***special permit segment*** is approximately 11.45 miles in length and crosses Jackson creek, Deakle creek, Miller creek, and Simmons branch (creek).

The new ***special permit segmen***t pipeline right-of-way is within residential area, land mowed and maintained as pasture, and wooded area. The new ***special permit segment*** is located in stable soil. The terrain throughout the entire ***special permit inspection area*** is a gradually sloping land and the soils are stable with no known geological hazards such as significant earthquakes, risk of flooding, subsidence, or landslides.

Although earthquakes occur in Alabama, many are too small to be felt by people and most are unlikely to do serious damage (Alabama Geological Survey, 1999). The great majority of earthquakes occur in the northern half of Alabama, and based on historical records through 2003, none have occurred in Mobile County, nor are any surface faults mapped in the County. Therefore, it is unlikely that a damaging earthquake will occur in the new ***special permit segment***, and such event could also affect a pipeline that had been replaced for uprating.

Indian Trust Assets*:* Any work associated with this new ***special permit segment*** would have no impact on Native Americans or any land owned or otherwise administered by Native American tribes. The scope and duration of this project would have little to no effect or impact on the socioeconomics in the vicinity of this project. No tribal land exists along the ***special permit segment***.

Land Use: All areas within the vicinity of the new ***special permit segment*** are privately owned tracts of land. There are no known planned land expansions or developments in the vicinity of the pipeline, but this special permit accounts for possible future development along the right of way.

Noise: The scope and duration of any activities associated with the new ***special permit segment*** would have little to no impact on noise levels in the vicinity of the pipeline. A denial of the special permit or the "no action" alternative would result in temporary increases in noise during the replacement of the existing pipe.

Recreation: The scope and duration of any activities associated with the new ***special permit segment*** would have little to no impact on recreation in the vicinity of the pipeline. A denial of the special permit or the "no action" alternative could result in temporary impacts on recreation activities during the replacement of the existing pipe.

Safety: The Pipeline Safety Regulations require pressure reduction or replacement of Class 1 location pipe in the event of certain population growth in order to better protect higher populations located along the pipeline. The special permit will waive the requirement to reduce pressure or replace the existing pipe with a stronger pipe. However, the special permit includes conditions intended to improve safety and environmental protection to equal or exceed that provided by the measures required under 49 CFR 192.611(a). The conditions include: coating surveys and remediation, corrosion surveys and remediation, damage prevention activities, line of sight markers, inline-tool inspections for threats, remediation of pipe threats based upon design factor for class location, reassessments based upon integrity management program, procedures, and documentation.

Monthly patrols, weather permitting, are used to observe surface conditions on and adjacent to the pipeline right-of-way for indications of leaks, third party construction activity, exposed pipe, erosion or other factors that affect the safety and operation of the pipeline.

Close Interval Surveys (CIS) and direct current voltage gradient (DCVG) have been or will be performed on the pipe within the special permit segment to ensure cathodic protection (CP) is acceptable. Areas of low CP potentials have been or will be remediated according to the PHMSA-2007-0039 special permit conditions.

GSPC will continue to perform Damage Prevention measures are as described in the best practices of the Common Ground Alliance (CGA) within the Special Permit Inspection Area.

High resolution in-line inspections were completed in 2009. Subsequent inspections will be performed using high-resolution inspection at intervals as specified by 49 CFR Part 192, Subpart O reassessment intervals.

Any anomalies detected during in-line inspections will be remediated in accordance with 49 CFR Part 192, Subpart O and the conditions of the special permit. These activities provide safety and environmental protection in the area of the new ***special permit segment***.

The above-described monitoring conditions associated with the special permit would not be applicable if PHMSA denied the special permit request because the safety requirements in 49 CFR Part 192, Subpart O only apply to less than two (2) miles of the 11.45 miles of the special permit segment.

These monitoring conditions are intended to provide more information about the condition of the pipe so that any integrity issues can be remediated to avoid risk.

On the other hand, the "no action" alternative would require full compliance with 49 CFR 192.611(a). This provision would require the replacement of the existing pipeline with a thicker/stronger pipeline that meets the requirements of 49 CFR 192.611(a). However, the monitoring conditions associated with the special permit would not be applicable if the special permit were denied because those conditions are not mandated by the current 49 CFR Part 192. Accordingly, both alternatives are expected to lead to a similar safety result.

(a) Would operation under the special permit change the risk of rupture or failure*?* GSPC has a practice of implementing a number of pipeline safety measures that exceed the requirements of 49 CFR Part 192. These measures include conducting in-line inspections not required under existing regulations and conservatively repairing conditions that do not present a near-term risk to pipeline integrity in order to help ensure the integrity and safety of the pipeline. In addition, patrolling frequencies that exceed the requirements of 49 CFR 192.611, line-of-sight signage where practical, and on-site monitoring of excavations following CGA best practices, enable GSPC to manage the risk of third party damage to the pipeline. As a result of these measures, the pipeline is in good condition, and GSPC's safety record is good.

(b) If a failure occurred, would consequences and spill or release volumes be different if PHMSA granted the permit? Would granting this permit increase, decrease, or have no change on the risk of failure? PHMSA believes that granting the special permit would not increase, and could arguably decrease the risk of failure. However, in the event that PHMSA denied the special permit and GSPC opted to reduce pressure instead of replace the pipe, a failure on a reduced-pressure pipeline could result in a smaller volume of natural gas released. GSPC contends that it would not opt to reduce pressure due to ongoing contractual obligations.

(c) Would the Potential Impact Radius (PIR) of a rupture change under the Special Permit? In the event that GSPC opted to reduce pressure, the PIR would be smaller than a failure on an uprated/replaced pipeline or the pipeline operating pursuant to the special permit. A failed pipeline with a lower PIR is likely to impact fewer people and cause less damage. However, GSPC contends that it would not opt to reduce pressure even if PHMSA denied the special permit because of its contractual commitments. Therefore, the current MAOP would not change whether the special permit is granted or not because GSPC would have to replace the 6544 feet of pipe if the special permit request is denied.

(d) Would operation under the Special Permit have any effect on pipeline longevity or reliability? Would there be any life cycle or maintenance issues? Increased pipeline assessments required by the special permit including defined reassessment intervals ensures anomalies would be identified and remediated per the conditions of the special permit. Since this pipeline currently operates according to the conditions of an existing special permit, the benefits of increased pipeline assessments are already realized to a large amount. Pipe replacement or uprating would also increase the longevity of the pipeline. Applying the ***special permit segment*** conditions over the 11.45-mile pipeline length will improve reliability and safety.

Socioeconomics: The scope and duration of any activities associated with the ***special permit segment*** would have no impact on the socioeconomics in the vicinity of the pipeline. According to US Census data, Mobile County has 19.5% of persons in poverty. The special permit and the no action alternative would not disproportionately impact any predominantly low income populations.

Topography: The ***special permit segment*** right-of-way is within a residential area and is mowed and maintained as pasture. There would likely be pipeline excavation conducted as a calibration dig due to the special permit DCVG test requirement. This excavation, if required, would be conducted within the boundaries of the previously disturbed pipeline right-of-way. There would be no long term impact to topography in the area of the special permit.

Transportation: The scope and duration of any activities associated with the ***special permit segment*** or the no action alternative would have little to no impact on the local infrastructure or roads. The no action alternative could result in increases in traffic due to construction activities.

Water Resources: The ***special permit segment*** crosses four (4) creeks as previously mentioned, but no wetlands. The scope and duration of any activities associated with the ***special permit segment*** would have little to no impact on the surface waters in the vicinity of this pipeline section.

The Sand and Gravel Aquifer underlies an area of about 6,500 square miles in southwestern Alabama including the ***special permit segment*** and ***special permit inspection area***. All of the subsequent information concerning the Sand and Gravel Aquifer was supplied by the (USEPA, 2006). According to the United States Environmental Protection Agency, the aquifer supplies most of the water used by small communities in the rural parts of Mobile County, Alabama. The city of Mobile is supplied by surface water.

GSPC does not anticipate any impact to domestic water wells because no wells are believed to exist on or close to the project area. Based on a review of the Region 4 Sole Source Aquifer map, there are no EPA-designated sole source aquifers in Alabama. The potential for groundwater impact resulting from this Project is very low because existing groundwater flow paths are not expected to change. The special permit would not cause changes in groundwater quantity, which is determined by the quantity of recharge to the aquifer. Additionally, due to the depth of groundwater, GSPC does not anticipate encountering groundwater during pipeline excavation activities.

B. Comparative Environmental Impacts of Alternatives

As PHMSA recognized in its 2004 Notice, implementing additional preventative and mitigative measures enables a pipeline to improve its knowledge and understanding of the pipeline's integrity, accelerate the identification and repair of actionable anomalies, and better manage and mitigate threats to the public and environment. Implementing enhanced inspection and assessment practices throughout the Inspection Area, in lieu of replacing small sections of pipe experiencing the class location change, extends pipeline safety benefits to a much greater area. In addition, avoiding pipe excavation and replacement would minimize costs to the operator, would avoid delivery interruptions and supply shortages, and avert environmental disturbance.

All of these benefits would be realized under GSPC's requested ***special permit segment***. The testing and evaluations required by our existing special permit PHMSA-2007-0039 have provided GSPC with an extensive amount of valuable information regarding the condition and integrity of the pipe. These measures have enabled GSPC to assess integrity threats and mitigate safety risks that affect a greater number of people than if GSPC were to replace isolated segments of pipe.

If the special permit is not granted, 49 CFR 192.611(a) would require pipe replacement or a pressure reduction. However, the monitoring conditions associated with the Special Permit would not be applicable if the special permit were denied because those conditions are not mandated. Accordingly, both alternatives are expected to lead to a similar safety result.

Because GSPC contractual obligations would not allow the operating pressure of the pipe to change, the mode of pipeline failure would be the same whether the pipe operates under a special permit or is replaced. Likewise, human safety would not be affected.

The natural environment would be temporarily disturbed if the pipe is replaced; a special permit would have little to no impact on the environment.

X. Consultation and Coordination

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XI. Agencies and Persons Consulted

No other agencies were consulted by PHMSA. PHMSA considered environmental information, special permit conditions, and documents submitted by GSPC.

XII. Response to Public Comments Placed on Docket PHMSA-2007-0039

PHMSA published the special permit modification request in the Federal Register (83 FR 13005) on March 26, 2018, and the public comment period ended on April 25, 2018. The special permit application from GSPC, pipeline route maps, public comments, environmental assessment, analysis and findings document, and special permit conditions are available in Docket No. PHMSA-2007-0039 at: www.regulations.gov. PHMSA received no relevant comments from the public concerning this special permit request.

XIII. Finding of No Significant Impact

In consideration of the safety special permit conditions explained above, PHMSA finds that no significant negative impact will result from the issuance of the above-described special permit for the GSPC TPL-880 ***special permit segment*** (11.45 miles of 30-inch diameter pipeline from Survey Station 632+60 to Survey Station 1201+68) located in Mobile County, Alabama. PHMSA believes that the issuance of the special permit will have a positive impact on the human environment because implementation of the permit would reduce the overall risk of failure of the TPL-880 pipeline that could result in serious harm to human health and the environment.

XIV. Bibliography

Geological Survey of Alabama. 1971. Geology of Mobile County, Alabama. Map 93. P.C. Reed. Scale 1 inch = 1 mile.

Geological Survey of Alabama. 1999. Earthquakes in Alabama. http://www.gsa.state.al.us/gsa/EQ2/eq.html.

Environmental Protection Agency. 2006. EPA Escatawapa Watershed Profile. http://cfpub.epa.gov/surf/huc/.cfm?huc_code=03170008.

Environmental Protection Agency. 2006. EPA Mobile-Tensaw Watershed Profile. http://cfpub.epa.gov/surf/huc/.cfm?huc_code=03170008.

United States Census Bureau. 2017. Quick Facts, Mobile County, Alabama. https://www.census.gov/quickfacts/fact/table/mobilecountyalabama

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