

U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
FINAL ENVIRONMENTAL ASSESSMENT
and
FINDING OF NO SIGNIFICANT IMPACT

Special Permit Information:

Docket Number:	PHMSA-2009-0390
Requested By:	Colonial Pipeline Company
Operator ID#:	2552
Original Date Requested:	November 7, 2009
Original Issuance Date:	November 25, 2019
Effective Dates:	November 25, 2019
Code Section(s):	49 CFR 195.310

I. Background

The National Environmental Policy Act (NEPA), 42 United States Code (USC) 321 – 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 action² 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 the operation of the pipeline in full compliance with the Federal 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.

¹ References to PHMSA in this document means PHMSA OPS.

² The “proposed action” or “proposed action alternative” was selected as the granted action for 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 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 the National Environmental Policy Act (NEPA) for the Colonial Pipeline Company (Colonial or Colonial Pipeline) application for a special permit request to waive compliance from 49 CFR 195.310 for two (2) 40-inch diameter hazardous liquid pipeline segments located in Louisiana and Georgia. This FEA and finding of no significant impact (FONSI) is 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 Federal pipeline safety regulations found in 49 CFR Part 195. This permit will require Colonial to implement additional conditions on the operations, maintenance, and integrity management (IM) of the *special permit segments*.

II. Introduction

Pursuant to 49 U.S.C. 60118(b) and 49 CFR 190.341, Colonial applied to PHMSA for a special permit seeking relief from 49 CFR 195.310 for two (2) segments of the Colonial Line 01 hazardous liquid pipeline system, where Colonial has failed to retain certain hydrostatic pressure test records. The application for a special permit is to waive the requirement to have retained the pressure recording charts and certain other pressure test data. The two (2) hazardous liquid pipeline *special permit segments* of Colonial's 40-inch diameter Line 01 were constructed and placed in operation between 1976 and 1978. Line 01 is an interstate pipeline that consists of 1,049 miles of 40-inch and 36-inch diameter steel pipeline that primarily transports gasoline from refineries in Houston, Texas to Greensboro, North Carolina.

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

III. Regulatory Background

PHMSA regulations at 49 CFR 195.310 require a hazardous liquid pipeline to retain pressure test records of each pipeline segment. Below is the relevant text of 49 CFR 195.310:

49 CFR 195.310 Records: *states,*

(a) A record must be made of each pressure test [including hydrotest] required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.

(b) The record required by paragraph (a) of this section must include:

- (1) The pressure recording charts;*
- (2) Test instrument calibration data;*
- (3) The name of the operator, the name of the person responsible for making the test, and the name of the test company used, if any;*
- (4) The date and time of the test;*
- (5) The minimum test pressure;*
- (6) The test medium;*
- (7) A description of the facility tested and the test apparatus;*
- (8) An explanation of any pressure discontinuities, including test failures, that appear on the pressure recording charts;*
- (9) Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section; and*
- (10) Temperature of the test medium or pipe during the test period.*

IV. Site Description

Special Permit Segment 1 (Louisiana Segment):

Special permit segment 1 runs approximately 66.372 miles from Church Point Station to Baton Rouge Station in Louisiana³, as depicted on Figure 2. 27.949 miles of the 66.372-mile **special permit segment 1** is a pipeline segment that crosses or could affect a high consequence areas (HCAs), including commercially navigable waterways (CNW), drinking water unusually sensitive areas

³ Colonial located test records for 1.922-miles in **special permit segment 1** reducing it from the original 66.372 miles to 64.450 miles. The locations of these short segments are detailed in the special permit conditions.

(DW USAs), and ecological USAs (EC USAs) along and near the pipeline.⁴ ***Special permit segment 1*** is located in Acadia, St. Landry, Point Coupee, and West Feliciana Parishes, Louisiana. ***Special permit segment 1*** begins at Station Number 4976+11 and ends at Station Number 5+32 (equation involved). The 40-inch diameter Line 01 pipeline primarily transports gasoline.

Special permit segment 1 is comprised of 40-inch external diameter API 5L X60, X52, and X42 grades steel pipe with wall thicknesses ranging from 0.312 to 0.500 inches. The pipe is primarily coated with coal tar enamel and cathodically protected with an impressed current system.

Special permit segment 1 was installed in 1976 through conventional ditching, stringing, and backfilling methods. The pipeline crossing the Atchafalaya River was replaced by horizontal directional drilling coated with fusion bond epoxy (FBE), and hydrostatically tested.

The maximum operating pressure (MOP), established by hydrostatic test pressures, for ***special permit segment 1*** is 574 pounds per square inch gauge (psig). The upstream pump station discharge control pressure setting is 570 psig with a high line shutdown at 600 psig. The operation of ***special permit segment 1*** is controlled through supervisory control and data acquisition (SCADA) communication systems.

The ***special permit segment 1*** has had no manufacturing related leaks in its history. It has experienced a total of five (5) leaks of which only one (1) leak was on the pipeline, the remaining four (4) leaks were valve and equipment related. The pipeline leak was found to be located at a buckle with a fatigue crack that survived the original hydrostatic testing.

Since 1988, Colonial has assessed ***special permit segment 1*** routinely using a variety of inline inspection (ILI) technologies. ILI inspections were performed on ***special permit segment 1*** in 1988, 1993, 1995, 2001, 2004, 2009, 2013 and 2015 using high resolution magnetic flux and deformation tools and/or crack tools. These ILI inspections revealed only one (1) immediate anomaly (in 2012) and no 60-day anomalies. All anomalies (including some 180-day and

⁴ For purposes of the hazardous liquid integrity management regulations, PHMSA defines a high consequence area (HCA) to include (1) a commercially navigable waterway or CNW (a waterway where a substantial likelihood of commercial navigation exists); (2) a high population area or HPA (an urbanized area, as defined and delineated by the Census Bureau, that contains 50,000 or more people and has a population density of at least 1,000 people per square mile); (3) an other populated area or OPA (a place, as defined by the Census Bureau, that contains a concentrated population, such as an incorporated or unincorporated city, town, village or other designated residential or commercial area); and (4) an unusually sensitive area or USA (defined under 49 CFR 195.6). 49 CFR Part 195.450.

other anomalies) were remediated in accordance with 49 CFR Part 195 and Colonial's integrity management and maintenance procedures. Colonial has performed annual cathodic protection (CP) surveys of *special permit segment 1* to identify deficiencies in CP and confirm adequate CP. In 2017, Colonial employed SmartBall leak detection technology on *special permit segment 1* and no acoustical anomalies were detected.

Special Permit Segment 2 (Georgia Segment):

Special permit segment 2) runs 10.234 miles from the Chattahoochee River to Georgia Highway 141, as depicted on Figure 3. The entire 10.234-mile *special permit segment 2* is a pipeline segment that could affect HCAs, including ecological and drinking water unusually sensitive areas (USAs) are directly impacted.⁵ *Special permit segment 2* is located in Fulton, DeKalb, and Gwinnett Counties, Georgia. *Special permit segment 2* begins at Station Number 951+65 and ends at Station Number 1492+76 located in Fulton, DeKalb, and Gwinnett Counties in Georgia. The 40-inch diameter Line 01 pipeline primarily transports gasoline.

Special permit segment 2 is comprised of 40-inch external diameter API 5L X60 and X42 grade steel pipe with wall thicknesses ranging from 0.344 to 0.500 inches. The pipe is coated with Pritec (extruded plastic) coating and cathodically protected with an impressed current system. The *special permit segment 2* was installed in 1978 through conventional ditching, stringing, and backfilling methodologies.

The MOP, established by design and test pressures, for *special permit segment 2* is 743 psig. The upstream pump station discharge control pressure setting is 500 psi with a high line shutdown at 530 psi.⁶ The operation of *special permit segment 2* is controlled through SCADA communication systems. The *special permit segment 2* has had no manufacturing related leaks in its history. *Special permit segment 2* has experienced two (2) leaks from other

⁵ For purposes of the hazardous liquid integrity management regulations, PHMSA defines a high consequence area (HCA) in 49 CFR 195.450 to include (1) a commercially navigable waterway or CNW (a waterway where a substantial likelihood of commercial navigation exists); (2) a high population area or HPA (an urbanized area, as defined and delineated by the Census Bureau, that contains 50,000 or more people and has a population density of at least 1,000 people per square mile); (3) an other populated area or OPA (a place, as defined by the Census Bureau, that contains a concentrated population, such as an incorporated or unincorporated city, town, village or other designated residential or commercial area); and (4) an unusually sensitive area or USA (defined under 49 CFR 195.6).

⁶ These pressures are slightly lower than those reported in the special permit application due to subsequent operational and relief setting changes which lowered the discharge pressure at the closest pump station upstream of *special permit segment 2*.

causes: one attributable to a buckle (caused by third party activities) with a fatigue crack that was not present during original hydrostatic testing, and the other was related to a valve fitting.

Since 1988, Colonial has assessed *special permit segment 2* routinely using a variety of ILI technologies. Inspections were performed in 1988, 1993, 1998, 2003, 2008, 2012 and 2017 using magnetic flux and deformation tools and/or crack tools. As summarized in a table on Figure 3, ILI inspections revealed no immediate anomalies and only four 60-day anomalies. All anomalies (including some 180-day and other anomalies) were timely remediated, in accordance with 49 CFR Part 195 and Colonial's IM and maintenance procedures. In 2017, Colonial employed SmartBall leak detection technology on *special permit segment 2* and no acoustical anomalies were detected. No deficiencies have been identified since 2012 and those that were identified have since been addressed.

Special permit segment 1 primarily runs through rural southwest Louisiana, with 27.949 miles located in an area that could affect an HCA. *Special permit segment 2* is in the HPA of north metropolitan Atlanta, GA. The total length of 10.234 miles of the *special permit segment 2* is located such that it could affect an HCA, however, the pipeline was constructed in the late 1970s and has been and continues to be safely operated and maintained in the area, in accordance with the requirements of 49 CFR Part 195.

V. Purpose and Need

Colonial's Line 01 is an interstate pipeline that consists of 1,049 miles of 40-inch and 36-inch diameter steel pipeline that primarily transports gasoline from refineries in Houston, Texas to Greensboro, North Carolina. The *special permit segments* at issue for which Colonial seeks a waiver from the record requirements in the special permit application includes approximately 66 miles of 40-inch pipeline in Louisiana (*special permit segment 1*), and 10 miles of 40-inch pipeline in Georgia (*special permit segment 2*).

The need for the special permit arises because Colonial cannot locate certain pressure recording charts and calibration data for *special permits segments 1 and 2* from the original construction hydrostatic testing of the pipeline conducted in 1976 and in 1978, respectively. The application for a special permit is to waive the requirement to have retained the pressure recording charts and certain other pressure test data.

This FEA was prepared to assist PHMSA with its review of Colonial's special permit application and pursuant to DOT and PHMSA rules and regulations, NEPA, 42 U.S.C. 4321-4375, and the Council on Environmental Quality regulations at 40 CFR Parts 1500-1508.

PHMSA regulations require that pipeline operators retain original records of hydrostatic pressure tests, used to establish MOP after construction (49 CFR 195.310(b)). Colonial does not possess these records for *special permit segments 1 and 2*. Granting the special permit with implementation of the conditions would waive full compliance with 49 CFR 195.310(b) and enable Colonial to continue to operate the pipeline. The *special permit segments 1 and 2* have operated under the PHMSA regulations after construction was completed and hydrostatic pressure testing was conducted, but complete records documenting the testing for the segments cannot be located and were never submitted to PHMSA or its predecessor agency, Research and Special Programs Administration (RSPA).

Colonial Hydrostatic Pressure Testing Documentation for Special Permit Segments 1 and 2:

Colonial maintains the following information and documentation on *special permit segments 1 and 2*:

a. **General Information for both Segment 1 and Segment 2:**

- 1) Construction specifications for each authorization for expenditure (AFE);
- 2) Hydrostatic test records for adjacent pipeline segments;
- 3) Integrity Management Program (IMP) baseline assessments and reassessment information, along with ILI data (Colonial began conducting ILI runs prior to such inspections being mandated by the IMP rule in 2002);
- 4) Pipeline inspection records documenting appropriate repairs for all discovered defects;
- 5) Pipeline manufacturing data; and
- 6) Leak history documentation.

b. **Information Specific to Special Permit Segment 1 (Louisiana):**

- 1) Operating hydraulic gradient data of MOP versus normal steady state operating pressures;
- 2) Plot of the MOP along with internal design pressure (IDP) and 80% of hydrostatic test pressure;
- 3) Financial records indicating payment for services rendered associated with the performance of the hydrostatic testing;
- 4) Field notes identifying a hydrostatic test pressure of 855 psig;
- 5) Field notes identifying the stationing and pressures for the hydrostatic test plan;
- 6) Calculations of hydrostatic test pressures versus elevation; and
- 7) Evaluation of the test records showing stationing versus pressures.

c. **Information Specific to Special Permit Segment 2 (Georgia)**

- 1) Operating hydraulic gradient data of MOP versus normal steady state operating pressures;
- 2) Plot of the MOP along with IDP and 80% of hydrostatic test pressure;
- 3) Financial records indicating payment for services rendered associated with the performance of the hydrostatic testing;
- 4) Field notes outlining the hydrostatic test procedure inclusive of design and diagrams showing test pressures, stationing, and elevations;
- 5) Detailed water management plan and drawings for the hydrostatic testing inclusive of water chemistry analytical results;
- 6) Testimonies from Colonial employees and hydrostatic testing contractor employees that the hydrostatic test was performed;
- 7) Evaluation of the test records showing stationing versus pressures; and
- 8) Documentation of a failure during the hydrostatic test indicating test performance.

VI. Alternatives

A. Alternative 1: “Do Nothing/No Action” Alternative

Under a ‘no action’ alternative, PHMSA would deny the special permit request and the applicant would be required to fully comply with 49 CFR 195.310. In order to retain the records to comply with this provision, Colonial would have to perform hydrostatic pressure testing for *special permit segments 1 and 2*.

B. Alternative 2: Applicant’s Preferred Alternative

Under this alternative, PHMSA would grant the special permit application, and the applicant would continue operation of the *special permit segments 1 and 2* without possession of the Part 195-required hydrostatic test documentation and without performing further hydrostatic testing to obtain these records. Alternative 2 would be required to operate under the following summarized special permit conditions in Section VII below.

VII. ADDITIONAL OPERATIONS & MAINTENANCE REQUIREMENTS

To provide an equivalent level of safety in the absence of either lowering the pipeline operating pressure or upgrading the pipe, this special permit imposes conditions intended to decrease the likelihood of a release of gasoline or other products transported. PHMSA believes that these additional measures designed to prevent leaks and ruptures will ensure an equivalent level of safety. An overview of the special permit conditions is below.

- **Overview of the Special Permit Conditions:**

Approval of the special permit would also require full compliance by Colonial with the following conditions:

- 1) *Special permit segments 1 and 2* must be pressure tested to meet 49 CFR Part 195, Subpart E within two (2) years of the granting of this special permit and the appropriate records must be retained. If Colonial elects to not pressure test *special permit segments 1 and 2*, then Conditions 2 through 19 must be fully implemented within two (2) years of the grant of this special permit.
- 2) Mainline valves on either side of the *special permit segments 1 and 2* must be equipped for remote operation, monitoring and control, or remote monitoring.

- 3) Colonial must conduct a baseline assessment using inline inspection (ILI) through *special permit segments 1 and 2* using a high resolution (HR) deformation, HR-magnetic flux leakage (MFL) and/or ultrasonics.⁷
- 4) Colonial must incorporate the requirements of this special permit into its written integrity management program (IMP) and operating & maintenance (O&M) procedures. Colonial must treat *special permit segments 1 and 2* as a could affect “*high consequence area (HCA)*” in accordance with 49 CFR Parts 195.450 and 192.452. Reassessments of the Colonial pipeline within the *special permit segments 1 and 2* using HR MFL, HR Deformation, and Crack Detection ILI tools must be conducted at the frequency specified for HCAs in 49 CFR 195.452(j).
- 5) Anomaly response and repair for the Colonial Line 01 pipeline within *special permit segments 1 and 2* must be conducted as required by 49 CFR 195.452(h) and the additional evaluation and remediation criteria in the special permit conditions regardless of HCA⁸ status. The required timing for excavation, investigation, and remediation of anomalies based on ILI data or excavation results must be in accordance with 49 CFR 195.452(h), and must incorporate the appropriate design factors and wall loss criteria in the anomaly repair criteria. All cracks over 50% wall thickness and less than 1.39 failure pressure ratio must be remediated. All dents over 1% must have an “engineering critical assessment”.
- 6) A close-interval survey (“CIS”) must be conducted and areas of inadequate cathodic protection in *special permit segments 1 and 2* must be remediated⁹ within the special permit condition requirements.

⁷ The (HR) deformation/caliper ILI tool assessment shall be done using HR deformation/caliper ILI tools that achieve a +/- 0.5% tool tolerance capability using individual finger sensors that are outside of cup-type sensors. The ILI tool tolerance shall not be applied for anomaly sizing purposes.

⁸ HCAs in the *special permit segments 1 and 2* must have anomalies evaluated and repaired based upon the most stringent requirements of: this special permit; 49 CFR Part 195.452, or Colonial’s Integrity Management Plan.

⁹ The terms “remediate” or “remediation” of pipe coating must include repair of damaged external pipe coating, where required to maintain cathodic protection of the pipeline in accordance with 49 CFR 195, Subpart H.

- 7) CIS reassessments must be conducted on *special permit segments 1 and 2* at a frequency consistent with the reassessment intervals specified in 49 CFR 195.452(j)(3) and the CP levels required in 49 CFR 195, Subpart H.
- 8) Spacing between CP pipe-to-soil test stations within *special permit segment 1 and 2* cannot exceed one (1) mile or as specified in the special permit conditions.
- 9) Any areas of low CP potential within the *special permit segments 1 and 2* must be remediated within one (1) year of the finding unless it is impracticable to meet this schedule due to a permitting interval.
- 10) Line-of-sight markers must be installed and maintained within the *special permit segments 1 and 2* to the extent practical except in agricultural areas, large water crossings, swamp areas, steep terrain, or where prohibited by law.
- 11) Mainline valves within the *special permit segments 1 and 2* controlled by a SCADA system and equipped for remote monitoring and control, or remote monitoring and automatic control must comply with 49 CFR 195.134, 195.444, and 195.446 and the special permit conditions.
- 12) Colonial must perform surveys and remediation, with corrosion control implemented, for induced currents from electric transmission lines and other known sources of potential interference within the *special permits segment 1 and 2*.
- 13) Annually, after issuance of this special permit, Colonial must submit an annual pipeline integrity report to PHMSA.
- 14) Colonial must maintain data integration of special permit condition findings and remediation in the *special permit segments 1 and 2*.
- 15) Colonial 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 *special permit segments 1 and 2* prior to the disturbance.
- 16) If a leak or rupture (accident as defined by 49 CFR 195.50) occurs in any of the *special permit segments 1 or 2*, a ‘root cause analysis’ must be performed to determine the cause of the failure.

- 17) Colonial must have material records (pipe, flanges, fittings, etc.) to support the maximum operating pressure (MOP) of Line 01 in accordance with 49 CFR Parts 195.106 and 195.406.
- 18) Colonial must maintain all records, with the exception of records required under 49 CFR 195.310 which are the reason for the special permit, required by 49 CFR Part 195, as well as records required in the special permit conditions for *special permit segments 1 and 2*.
- 19) A Colonial senior executive officer, vice president or higher must certify in writing either Condition 19(a) or Condition 19(b) through (d) of the following:
 - a. Colonial has pressure tested *special permit segments 1 and 2* to meet 49 CFR 195.304, 195.305, 195.306 and has the records required in 49 CFR 195.310; or
 - b. Colonial Line 01 pipeline *special permit segment 1 and 2* meets the applicable conditions described in this special permit;
 - c. The written manual of O&M procedures required by 49 CFR 195.402 for the Colonia/ Line 01 pipeline has been updated to include all requirements of this special permit for *special permit segments 1 and 2*; and
 - d. Colonial has implemented all applicable conditions as required by this special permit.

VIII. Affected Resources and Environmental Consequences

The requirement in 49 CFR 195.310 requires that operators maintain records to ensure the efficacy of the hydrostatic test and that the full results are available for future integrity and maintenance decision-making. Hydrostatic tests subject a pipeline to a higher pressure that is utilized during operation, with the hope that any manufacturing defects would be stressed to the point of failure, avoiding a potential future failure when the line is filled with and transporting hazardous liquid.

In the over forty years since Line 01 began operations, the safety history of *special permit segments 1 and 2* have involved one (1) failure of a defect that is thought to have been present at the time of the hydrotest that Colonial describes. Because Part 195-compliant hydrostatic test records do not exist for *segments 1 and 2*, the above-listed special permit conditions would ensure any potential defects undetected in hydrostatic testing are accounted for and remediated, if necessary. Furthermore, the conditions require testing to ensure full cathodic protection, which reduces the risk of corrosion in areas of potential coating defects. Also, the special permit requires the use of remote-controlled valves connected to the SCADA system, so that in the unlikely event of a failure, quicker valve

closure would reduce the amount of hazardous liquid that could enter the environment. These conditions exceed the requirements in existing regulations that Colonial has complied with and must continue to comply with under the IM regulations in 49 CFR Part 195, subpart F.

Both alternatives are anticipated to reduce the likelihood of a release of hazardous liquid materials. The “proposed action” requires more stringent maintenance, monitoring, and repair criteria, which is intended and expected to decrease the likelihood of a release. The “no action” alternative would require hydrostatic testing of *special permit segments 1 and 2*, which exposes metal weaknesses in the pipeline, avoiding future releases, since the test subjects a pipeline to higher pressures than those experienced during operations. The following is a description of the potential impacts that the alternatives could have on specific resources.

1. **Aesthetics**: There would be no physical change to *special permit segments 1 and 2* subject to this special permit request. If the special permit was denied, a hydrostatic test would result in the presence of temporarily increased traffic around certain points along the pipeline.
2. **Agricultural Resources**: There will be no physical change to *special permit segments 1 and 2* subject to the selection of either alternative. However, selection of the no action alternative could involve excavation and a slight risk of release of contaminated water that potentially could affect soil.
3. **Air Quality**: *Special permit segment 1*, located in Louisiana, is in a prevention of significant deterioration (PSD) air quality areas (attainment areas). *Special permit segment 2*, located in Georgia, is in the Atlanta, Georgia non-attainment area new source review (NAA NSR) air quality permitting area, though the area is currently designated as attainment. This special permit will not affect air quality, however, and there is no new construction associated with the special permit request. Excavation and pipeline repair activities could slightly increase due to stricter inspection and remediation requirements. These activities could have minor impacts, temporary impacts on air quality due to the use of heavy equipment.

The selection of the no-action alternative could more significantly, yet temporarily, increase emissions from vehicles, excavation activities, and equipment needed to carry out hydrostatic testing. It is unclear how Colonial might carry out the hydrostatic test, but it would require that *special permit segments 1 and 2* be emptied of hazardous liquid and filled with water. This could require cutting of the pipeline and trucks for movement or storage of hazardous liquids or test water. Excavation and pipeline cutting equipment would also be required in various spots

along the *special permit segments*. These activities could be expected to result in increased emissions from diesel-powered equipment.

4. **Biological Resources:** *Special permit segment 1* crosses the northwest corner of the Atchafalaya National Wildlife Refuge. This National Wildlife Refuge is home to bottomland hardwood forests, bayous, and wetlands. The Refuge provides high quality and diverse habitat to support neotropical songbirds, the Louisiana black bear, waterfowl, and other native fish and wildlife species. The Refuge is noted as a globally important bird area by the American Bird Conservancy. *Special permit segment 1* crosses other areas, including wetlands that also provide wildlife habitat. Sensitive habitat, especially bayous, bottomland hardwoods forests, and wetlands are especially vulnerable to impacts that could result from a release of hazardous liquids into the environment. As described above, both alternatives are intended to and expected to reduce the risk of pipeline failure that could result in the release of hazardous liquids.

The special permit would require quicker or more frequent remediation of defects, and this could result in minor increases in excavation and pipeline repair, which could have minor impacts to water quality due to runoff associated with excavation or disturbance to wildlife.

If the no action alternative was selected, biological resources could be affected through significant excavation activities, use of local water sources for test water, and disposal of waste hydrostatic test water into water bodies, according to issued permits. These measures would all require compliance with Federal, State, and local environmental laws, including the Clean Water Act. Nonetheless, due to extent, they could cause greater impacts to water quality and wildlife.

5. **Climate Change:** There will be no change to air emissions or air quality associated with the grant of this special permit request, given that there will be no change to the *special permit segments 1 and 2* which are the subject of the underlying special permit request. Neither alternative would be expected to have any significant impact on climate change. Nonetheless, as described above, more heavy equipment and excavation activities would be anticipated if Colonial had to hydrostatically test 76 miles of an operational 40-inch diameter pipeline.

6. **Cultural Resources:** There will be no significant increase in ground disturbing activities associated with this special permit request (the *special permit segments 1 and 2* have been in operation since the late 1970s). It is anticipated that more ground disturbing activities would result from the performance of a hydrostatic test associated with the no action alternative. Nonetheless, given that the pipeline sits in a right of way that has already been disturbed, it is not expected that either alternative would affect cultural resources.
7. **Environmental Justice:** The granting of the special permit will have no impact on populations in the affected areas, however, since *special permit segments 1 and 2* have been in operation since the late 1970s. If the no action alternative was selected, the hydrotest activities could temporarily affect residents living near the right of way for the 76 miles of pipeline that would need to undergo testing. Because the *special permit segments* total 76 miles, the hydrotest could impact many types of communities and there would be no disparate impact to low income, minority, or non-English speaking populations.
8. **Geology, Soils, and Mineral Resources:** PHMSA has no information indicating mineral resources are relevant to the *special permit segments*. Both alternatives could affect soils due to excavation activities. However, some excavation areas for pressure test manifolds would be required for the completion of a hydrostatic test of 76 miles of *special permit segments*.
9. **Indian Trust Assets:** The Esri U.S. Indian reservation overlay was compared to *special permit segments 1 and 2* and no features were found to intersect with either segment. For this reason, there has been no tribal coordination.
10. **Land Use:** Construction activities are not involved in this special permit request and the pipeline has been in operation for more than forty years, no impacts to land use or planning are anticipated for either alternative.
11. **Noise:** Both alternatives could result in increased excavation, and both could result in limited increases in noise due to excavation equipment and pipeline work. However, completing a hydrostatic test on 76 miles of operational pipeline in *special permit segments 1 and 2* would involve more excavation, disturbance, vehicles, and noise.
12. **Recreation:** There will be no impacts to recreational resources as a result of either alternative. *Special permit segments 1 and 2* will have no physical change; the two (2) segments that have

been in operation since the late 1970s. Excavation activities with both alternatives could have temporary impacts to recreational activities.

13. **Safety:** Hydrostatic tests are intended to reveal metal defects or weaknesses to avoid later pipeline failures. Therefore, a lack of test records could be a cause for concern. In this case, however, the *special permit segments* that are missing test records have only experienced one (1) failure in over forty years of operation that potentially could have been present at the time of the hydrostatic test that Colonial describes. Nonetheless, if PHMSA denies the special permit application (i.e. no action alternative), the segments lacking hydrostatic test data and documentation would be required to undergo testing so that the records could be maintained going forward. The purpose of the test would be to identify metal weaknesses that could lead to failure. On the other hand, if PHMSA grants the special permit application, the special permit conditions, intended to further improve monitoring and maintenance on the segments would be enforced.

In the unlikely event of a failure, the consequences would be no different if the no action alternative were selected. If the proposed action was selected, the consequences could be less given the special permit condition that requires that Colonial must equip all mainline valves on the Colonial pipeline on either side and including *special permit segments 1 and 2* for remote operation, monitoring and control, or remote monitoring and automatic control with pressure sensors on either side of the valve. Because of this, in the event of the failure, the mainline valves could be expected to close quicker, which would limit the amount of hazardous liquid flowing to the failure site and limit the size of a spill.

Special permit segment 2 traverses a highly-populated area. *Special permit segment 1* crosses and could affect “other population areas.” In these areas, people and residential and commercial properties could be affected and harmed by a release of hazardous liquids, including gasoline. Both *special permit segments 1 and 2* cross or could affect HCAs, so they currently operate subject to the integrity management regulations in 49 CFR 195.452. The selection of either alternative would not affect the applicability of the IM regulations. As described above, however, both alternatives would be expected to further reduce the likelihood of a failure with the proposed action alternative expected to provide a greater increase in safety. Finally, the issuance of the special permit would be expected to increase pipeline longevity, reliability, life cycle, and decrease maintenance issues due to the increased monitoring, survey, and remediation along *special permit segments 1 and 2*.

- 14. Socioeconomics:** Neither alternative would disproportionately impact low-income populations because there would be no permanent physical change to *special permit segments 1 and 2* and the pipeline has been in operation since the late 1970s.
- 15. Transportation:** There will be no physical change to *special permit segments 1 and 2* with the selection of either alternative. No additional roads or access will be required, constructed, or more frequently maintained. Slight increases in traffic could result from both alternatives due to work on the pipeline. Due to increased inspection and remediation requirements, there could be temporary work along the *special permit segments* with the proposed action alternative. However, the planning and completion of a hydrostatic test can be expected to result in a greater increase in traffic, personnel, and work vehicles in *special permit segments 1 and 2*.
- 16. Water Resources:** The *special permit segments 1 and 2* cross various surface water bodies, including named and unnamed streams. *Special permit segment 1* crosses the Bayou Courtableau and the Atchafalaya River. *Special permit segment 2* crosses the Crooked Creek. If PHMSA grants or denies Colonial’s special permit request, there will be no new impacts to water resources except those related to runoff due to excavation activities affecting *special permit segments 1 and 2*.

IX. Consultation and Coordination:

David Pearson, Director, Asset Integrity, Colonial Pipeline

Brandon Cavendish, Manager, Asset Data Management

Steve Nanney, Engineer, PHMSA

Amelia Samaras, Attorney, PHMSA

X. Response to Public Comments Placed on Docket PHMSA-2009-0390

PHMSA published the special permit request in the Federal Register (84 FR44350) for a 30-day public comment period from August 23, 2019 through September 23, 2019. The special permit application from Colonial, environmental assessment, and special permit conditions are available in Docket No. PHMSA-2009-0390 at: www.regulations.gov.

Through September 26, 2019, there were no comments posted on the docket for this special permit.

XI. Finding of No Significant Impact

In consideration of the safety conditions explained above, PHMSA finds that no significant negative impact would result from the issuance and full implementation of the above-described special permit to waive the requirements of 49 CFR 195.310 for *special permit segments 1 and 2*. This special permit will require Colonial to implement additional conditions on the operations, maintenance, and integrity management of *special permit segment 1* and *special permit segment 2*.

The 40-inch diameter Line 01 pipeline primarily transports gasoline. *Special permit segment 1* is in Acadia, St. Landry, Point Coupee, and West Feliciana Parishes, Louisiana. *Special permit segment 2* is in Fulton, DeKalb, and Gwinnett Counties, Georgia.

XII. APPENDICES

Figure 1: Colonial Pipeline – Line 01 – *Special Permit Segments 1 and 2*

Figure 2 – Map A: Colonial Pipeline – Line 01 – *Special Permit Segment 1*

Figure 3 – Map B: Colonial Pipeline – Line 01 – *Special Permit Segment 2*

XIII. BIBLIOGRAPHY

1. Colonial Pipeline Company Special Permit Application Docket at:
<https://www.regulations.gov/docket?D=PHMSA-2009-0390>
2. *U.S. v. Carroll*, 860 F.2d 500, 506–07 (1st Cir. 1988)
3. *Smoky Mt. Secrets v. U.S.*, 910 F. Supp. 1316, 1319 (E.D. Tenn. 1995)
4. *57 Fed. Reg.* 45655 (October 2, 1992)
5. *76 Fed. Reg.* 1504 (January 10, 2011)
6. *77 Fed. Reg.* 26822 (May 7, 2012)
7. U.S. Fish and Wildlife Service Critical Habitat Dataset,
<https://ecos.fws.gov/ecp/report/table/critical-habitat.html>

XIV. ACRONYMS AND ABBREVIATIONS

AFE	Authorization for Expenditure
CFR	Code of Federal Regulations
CNW	Commercially Navigable Waterway (49 CFR 195.450)
CP	Cathodic Protection

CPC or Colonial	Colonial Pipeline Company
DOT	Department of Transportation
DW USA	Drinking Water Unusually Sensitive Area (49 CFR 195.450)
EA	Environmental Assessment
EC USA	Ecological Community Unusually Sensitive Area (49 CFR 195.6)
FEA	Final Environmental Assessment
FBE	Fusion Bonded Epoxy
HCA	High Consequence Area (49 CFR 195.450)
HPA	High Population Area (49 CFR 195.450)
IDP	Internal Design Pressure
ILI	Inline Inspection
MOP	Maximum Operating Pressure
NEPA	National Environmental Policy Act
OPA	Other Populated Area (49 CFR 195.450)
OPS	Office of Pipeline Safety
PHMSA	Pipeline and Hazardous Materials Safety Administration
SCADA	Supervisory Control and Data Acquisition
U.S.C.	Unites States Code
USA	Unusually Sensitive Area (49 CFR 195.6)

Completed by PHMSA in Washington, DC on: November 25, 2019

Figure 1: Colonial Pipeline – Line 01 – Special Permit Segments 1 and 2

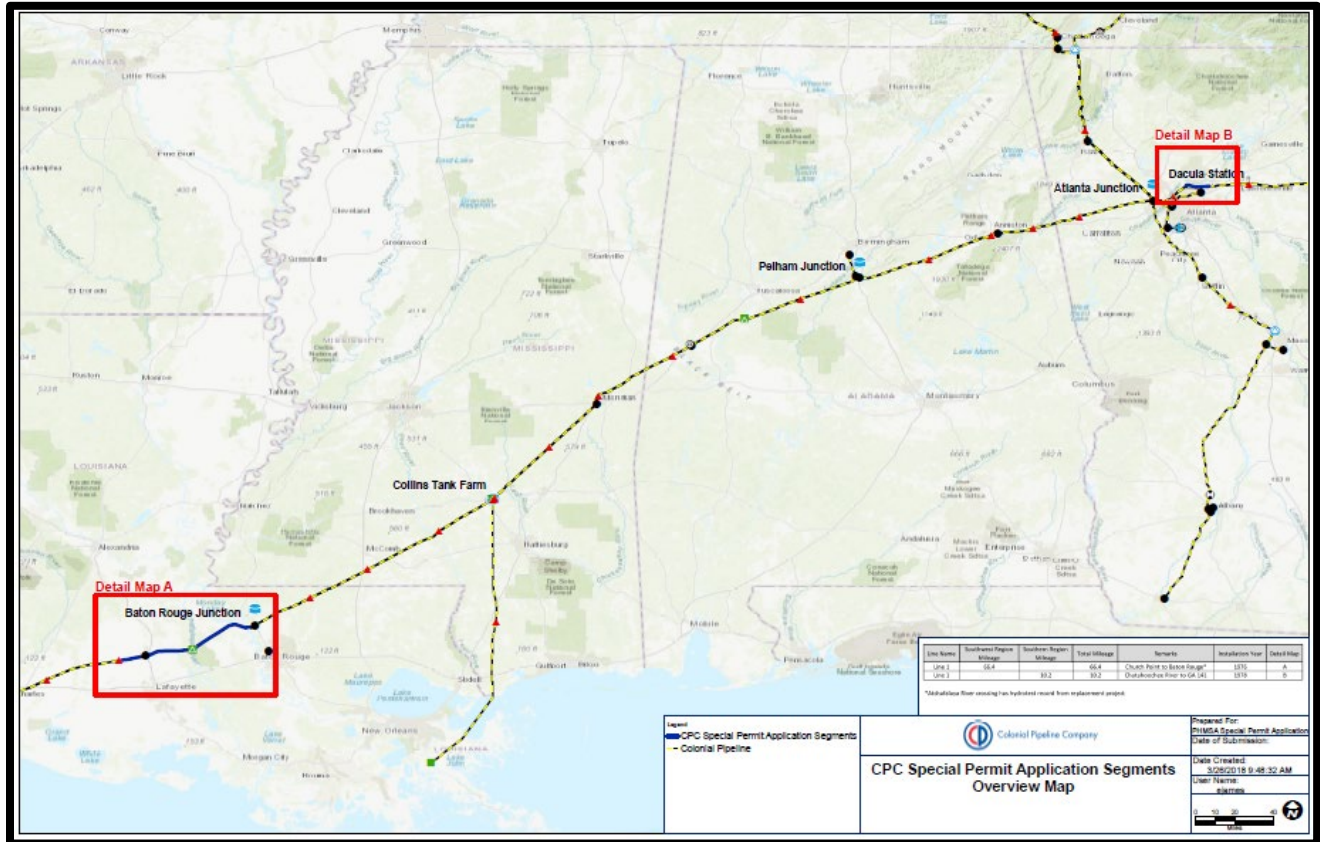


Figure 2 – Map A: Colonial Pipeline – Line 01 – Special Permit Segment 1

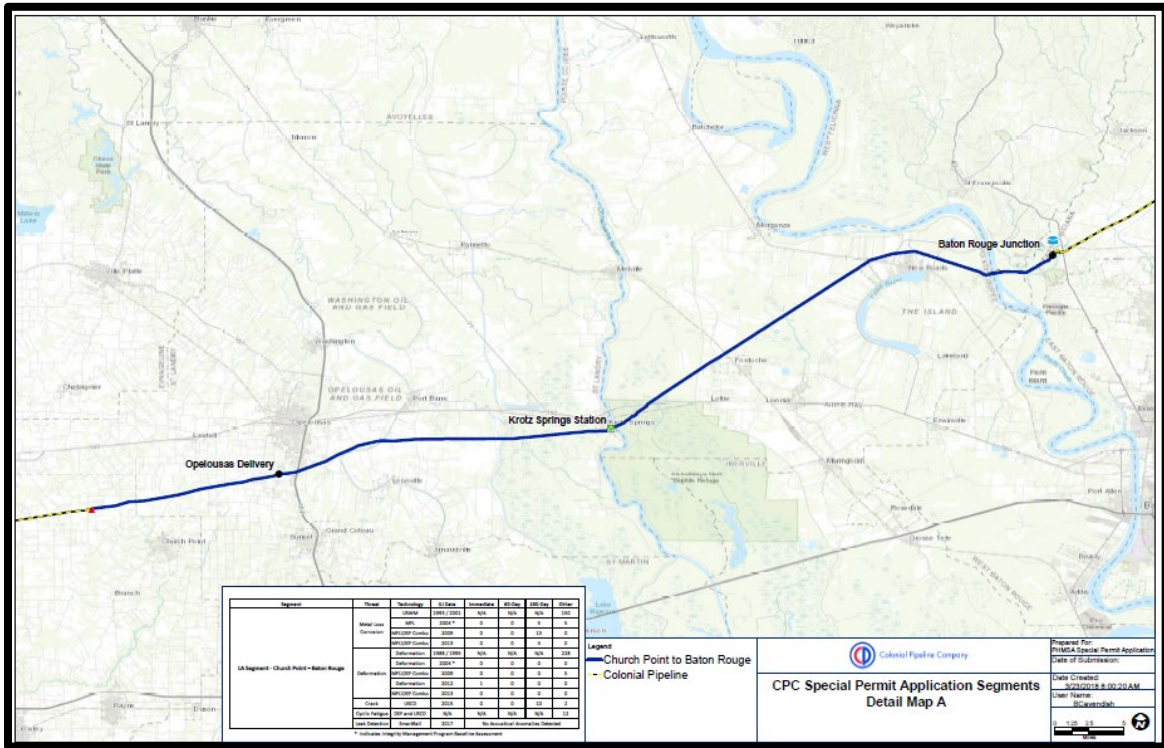


Figure 3 – Map B: Colonial Pipeline – Line 01 – Special Permit Segment 2

