

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-2020-0001 ^{1, 2}
Requested By:	Florida Gas Transmission Company, LLC
Operator ID#:	5304
Original Date Requested:	December 18, 2019
Original Issuance Date:	June 24, 2022
Updated Request:	March 24, 2023
Effective Date:	August 22, 2023
Code Section(s):	49 CFR 192.611(a) and (d) and 192.619(a)

I. Background:

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 – 4375 et seq., Council on Environmental Quality Regulations, 40 Code of Federal Regulations (CFR) 1500-1508, and U.S. Department of Transportation (DOT) Order No. 5610.1C, requires the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS)³ to

¹ Special permits PHMSA-2020-0001 and PHMSA-2023-0020 are being combined into special permit PHMSA-2020-0001. *Special permit segment 165857 extension* is added in **Table 1** and is in the same *special permit inspection area* that existed in the original special permit PHMSA-2020-0001.

The new *special permit segments 189579, 202967, 187434, 187440, and 202974* are in the FEA and FONSI for special permit Docket PHMSA-2023-0020, which can be reviewed at www.regulations.gov.

² This environmental assessment was initially completed for the initial special permit issued on June 24, 2022. This updated environmental assessment is valid for the original special permit request and the requested *special permit segment 16857 extension* (additions are in red in this document) as shown in **Table 1 – Special Permit Segments**.

³ Throughout this special permit the usage of “PHMSA” or “PHMSA OPS” means the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety.

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 will 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. PHMSA developed this assessment to determine what effects, if any, our decision would have on the environment.

On June 24, 2022, PHMSA granted a special permit to Florida Gas Transmission Company, LLC (FGT)⁴ to waive compliance with 49 CFR 192.611(a) and (d) and 192.619(a) for Class 1 to Class 3 or Class 2 to Class 3 location changes of approximately 3.761 miles of the 26-inch and 30-inch diameter pipelines. The special permit (PHMSA-2020-0001) included thirteen (13) *special permit segments* and three (3) *special permit inspection areas* along the FGT natural gas transmission pipeline system in Florida.

- A request for a special permit modification was submitted by FGT on March 24, 2023, for issuance of a special permit for a *special permit segment extension* pursuant to **Condition 17 of the special permit**. The *special permit segment 165857 extension* request includes 455 feet (0.086 mile) of 26-inch diameter pipeline where a class location has changed from a Class 2 to Class 3 location in Lake County, Florida.

Pursuant to 49 United States Code (USC) 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 National Environmental Policy Act (NEPA) for the FGT special permit to waive compliance from 49 CFR 192.611(a) and (d) and 192.619(a) for the new 0.086-mile *special permit*

⁴ Florida Gas Transmission Company, LLC is owned by Energy Transfer and Kinder Morgan, Inc.

segment 165857 extension. The original FEA (Docket No. PHMSA-2020-0001) has been updated to reflect the new ***special permit segment extension*** and includes the original thirteen (13) ***special permit segments*** and three (3) ***special permit inspection areas*** totaling approximately 3.847 miles of natural gas transmission pipeline along the FGT natural gas transmission pipeline system in Florida.

This FEA assesses the pipeline ***special permit segment extension*** 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 192.611(a) and (d) and 192.619(a). This permit requires FGT to implement additional conditions on the operations, maintenance, and integrity management (IM) of the approximately 3.847 miles⁵ of the 26-inch diameter Mainline Loop CMPR STA 17-18, 26-inch diameter Mainline Loop CMPR STA 18-19, and 30-inch diameter MLV 18-1 to C/S 19 Pipelines (***special permit segments***) and approximately 185.7 miles of (***special permit inspection areas***) of the FGT natural gas transmission pipeline system located in Brevard, Lake, Orange, and Osceola Counties, Florida.

II. Introduction:

Pursuant to 49 U.S.C. 60118(b) and 49 CFR 190.341, FGT submitted a special permit extension application to PHMSA on March 14, 2023, requesting that PHMSA waive the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) to permit FGT to maintain the maximum allowable operating pressure (MAOP) for the new ***special permit segment extension*** and the original thirteen (13) ***special permit segments*** where the class location has changed from Class 1 or Class 2 to Class 3 located in in Brevard, Lake, Orange, and Osceola Counties, Florida.

- The addition of ***special permit segment extension 165857*** includes 455 feet (approximately 0.086 miles) of 26-inch pipeline where a class location has changed from Class 2 to Class 3 in Lake County, Florida.

PHMSA is granting a special permit to waive certain regulatory requirements where it is not inconsistent with pipeline safety. A special permit is typically conditioned on the performance

⁵ The footage and mileage of ***special permit segments*** throughout this document has been updated to account for the ***special permit segment 165857 extension*** as shown in **Table 1 – Special Permit Segments**.

of additional measures beyond minimum Federal pipeline safety regulations, in accordance with 49 CFR 190.341.

III. Regulatory Background:

PHMSA regulations at 49 CFR 192.611(a) require that an operator confirm or revise the MAOP of a pipe segment that is in satisfactory condition when the hoop stress of the segment is no longer commensurate with class location. Under Section 192.611(a), an operator may be required to reduce the operating pressure of a pipe segment, or alternatively, may have to replace the pipe to maintain the MAOP. Below is the relevant text of 49 CFR 192.611(a):

49 CFR 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

FGT requested a waiver from the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) for the *special permit segments* consisting of approximately 3.847 miles of natural gas transmission pipeline listed below in **Table 1 – Special Permit Segments**. Without a special permit, the cited regulations require that FGT complete pipe replacement, hydrotest, and pressure reduction, based on population changes in the vicinity of the segments. FGT must apply the special permit conditions to the *special permit segments* to provide an equivalent margin of safety and environmental protection to meet the requirements of 49 CFR 192.611, as outlined in the special permit conditions.

The special permit establishes enhanced integrity management procedures (IMP) to maintain pipe integrity and protect both the public and the environment for the class location units in which the *special permit segments* are located for the length of pipeline covered by the special permit. All of the *special permit segments* must be treated as high consequence areas (HCA) with the implementation of IMP. In addition, FGT must comply with conditions as provided in the terms of the special permit for all the impacted *special permit segments* and the designated “*special permit inspection area*” in the special permit.

The conditions, as prescribed in the special permit, provide an additional level of safety without the impacts of excavation to remove existing pipe, install the replacement pipe, and conduct pressure testing of the existing pipe.

PHMSA has issued various special permits with nearly identical conditions and the conditions will provide, at minimum, a level of safety that is equivalent to the existing regulations. In this age of enhanced pipeline safety tools, such as inline inspection (ILI), and IM processes, it is wasteful and unnecessary to require wholesale replacement of pipe when the population near the pipeline increases. The special permit conditions are designed to identify and mitigate integrity issues that could threaten the pipeline segments and cause failure. The effect of the enhanced monitoring and maintenance requirements will ensure integrity of the pipe and protection of the population living near the pipeline segment to a similar degree as replacing with heavier walled or high-grade pipe without the enhanced IM activities.

Granting FGT a special permit waiving the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) benefits the public and FGT in several ways. 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 *special permit inspection areas*, in lieu of replacing the small sections of pipe experiencing the class location changes, extends pipeline safety benefits to a much greater area. In addition, avoiding pipe excavation, replacement and pressure testing minimizes costs to the operator, avoid delivery interruptions and supply shortages, and avert environmental disturbance.

Further, grant of the special permit will allow FGT to avoid unnecessary extensive impact to vegetation, soils, and potentially adjacent waterways due to approximately 3.847 miles of excavation to replace and hydrostatically pressure test pipe. FGT will avoid disturbing the right-of-way (ROW) of property owners except for the additional inspections that may be required to satisfy the conditions of the special permit such as those related to the IMP for HCAs, additional stress corrosion cracking verification digs, and potential anomaly evaluations/repairs.

All of these benefits will be realized within each of FGT's requested *special permit inspection areas* with the granting of this special permit. These measures will enable FGT to assess integrity threats and mitigate safety risks that affect a greater number of people than if FGT were to replace or pressure test isolated segments of pipe.

V. Site Description

The *special permit segments* consist of 20,314 feet (approximately 3.847 miles) of the 26-inch diameter Mainline Loop CMPR STA 17-18, 26-inch diameter Mainline Loop CMPR STA 17-18, and 30-inch diameter MLV 18-1 to C/S 19 Pipelines located in Brevard, Lake, Orange, and Osceola Counties, Florida. The extent of the *special permit segments* is provided in **Table 1 - Special Permit Segments**.

The *special permit inspection areas* extend approximately 185.7 miles of the pipeline and contain five (5) high consequences areas (HCA), which are calculated by Method 2 (49 CFR 192.903).

VI. Special Permit Segments and Special Permit Inspection Areas

On the condition that FGT complies with the terms and conditions set forth below, the special permit waives compliance from 49 CFR 192.611(a) and (d) and 192.619(a) for approximately 3.847 miles of the 26-inch and 30-inch diameter natural gas transmission pipelines, where the class locations of the pipelines in the *special permit segments* have changed from Class 1 to Class 2 locations⁶ and Class 1 to Class 3 locations in Brevard, Lake, Orange, and Osceola Counties, Florida.

⁶ Class 2 locations are required to have a pressure test at 1.25 or greater times MAOP and for eight (8) hours to meet 49 CFR 192.611(a).

Special permit segments:

This special permit applies to the *special permit segments* identified in **Table 1 – Special Permit Segments** and are identified using the FGT survey station (SS) references. A total of 13,442 feet (approximately 2.546 miles) of pipeline have undergone a class change from Class 1 to Class 3. A total of 6,872 feet (approximately 1.302 miles) of pipeline has undergone a class change from Class 2 to Class 3 where the *special permit segment* pipe, with a design factor of 0.72, was upgraded to Class 2 location pipe in accordance with 49 CFR 192.611(a).

Table 1 – Special Permit Segments

Special Permit Segment Number	Outside Diameter (inches)	Line Name	Length (feet)	Start Survey Station (SS)	End Survey Station (SS)	County, State	Class Summary	Year Installed	Seam Type	MAOP (psig)
165856	26	Mainline Loop CMPR STA 17-18	2,368	1835+77	1859+45	Lake, FL	2 to 3	1969	DSAW	977
165857	26	Mainline Loop CMPR STA 17-18	216	2075+20	2077+36	Lake, FL	2 to 3	1968	DSAW	977
16857 extension	26	Mainline Loop CMPR STA 17-18	455	2077+36	2081+91	Lake, FL	2 to 3	1968	DSAW	977
165858	26	Mainline Loop CMPR STA 17-18	724	2081+91	2089+15	Lake, FL	2 to 3	1969	DSAW	977
165859	26	Mainline Loop CMPR STA 17-18	587	2089+15	2095+01	Lake, FL	2 to 3	1969	DSAW	977
165860	26	Mainline Loop CMPR STA 17-18	643	2195+14	2201+57	Orange, FL	2 to 3	1969	DSAW	977
165897	26	Mainline Loop STA18-STA19	1,069	2967+96	2978+65	Brevard, FL	1 to 3	1968	DSAW	977
169426	26	Mainline Loop STA18-STA19	614	1100+68	1106+82	Orange, FL	1 to 3	1968	DSAW	974
169427	26	Mainline Loop STA18-STA19	4,618	1106+82	1153+00	Orange, FL	1 to 3	1968	DSAW	974
169428	26	Mainline Loop STA18-STA19	3,191	1153+00	1184+91	Orange, FL	1 to 3	1968	DSAW	977
165900	26	Mainline Loop STA18-STA19	291	3435+06	3437+97	Brevard, FL	2 to 3	1968	DSAW	977
165909	26	Mainline Loop STA18-STA19	1,588	3859+58	3875+46	Brevard, FL	2 to 3	1968	DSAW	977
170717	30	MLV 18-1 to C/S 19	3,668	60+17	61+43	Osceola, FL	1 to 3	1995	DSAW	975
165997	30	MLV 18-1 to C/S 19	282	61+43	64+25	Osceola, FL	1 to 3	1995	DSAW	975

Special Permit Inspection Areas:

The *special permit inspection areas* are defined as the area that extends 220 yards on each side of the centerline along approximately 185.7 miles of 26-inch and 30-inch diameter pipelines in Brevard, Lake, Marion, Orange, and Osceola Counties, Florida. A summary of *special permit inspection areas* is included in **Table 2 – Special Permit Inspection Areas**.

Table 2 – Special Permit Inspection Areas							
Special Permit Inspection Area Name	Special Permit Segment Number(s)	Outside Diameter (inches)	Line Name	County, State	Start Survey Station (MP)	End Survey Station (MP)	Length (miles)
FLMEB-17	165856, 165857, 165857 extension 165858, 165859, 165860	26	Mainline Loop CMPR STA 17-18	Lake, Marion, and Orange, FL	608.00	668.8	60.8
FLMEB-18	165897, 165900, 165909, 169426, 169427, 169428	26	Mainline Loop STA18-STA19	Brevard and Orange, FL	668.8	742.5	73.7
FLMED1819	170717, 165997	30	MLV 18-1 to C/S 19	Brevard, Orange, and Osceola, FL	683.3	734.5	51.2

Attachments B1 – B3 are general maps showing the pipeline *special permit segments* and *special permit inspection areas*.

High Consequence Areas:

There are six (6) *special permit segments* located within high consequence areas (HCAs) as detailed in **Table 3 – Special Permit Segments within High Consequence Areas**.

Table 3 – Special Permit Segments within High Consequence Areas						
Special Permit Segment Number	Line Name	County, State	Start Survey Station (SS)	End Survey Station (SS)	Length (feet)	Install Date
169427	Mainline Loop STA 18 – STA 19	Orange, FL	1120+37	1149+83	2,946	7/1/1968
169428	Mainline Loop STA 18 – STA 19	Orange, FL	1152+99	1159+91	692	7/1/1968
170717	MLV 18-1 To C/S 19	Osceola, FL	60+17	61+43	126	3/1/1995
165997	MLV 18-1 To C/S 19	Osceola, FL	61+43	64+25	282	3/1/1995
165857	Mainline Loop CMPR STA 17-18	Lake, FL	2075+20	2077+36	216	5/1/1968
165857 extension	Mainline Loop CMPR STA 17-18	Lake, FL	2077+36	2081+91	455	5/1/1968

VII. Alternatives

Alternative 1: “No Action” Alternative

The “No Action” Alternative or denial of the special permit would entail full compliance with existing regulations, specifically 49 CFR 192.611(a) and (d) and 192.619(a). This provision requires 1) pipeline pressure reduction (i.e., a lower operating pressure or MAOP); 2) new pipeline pressure testing; or 3) pipe replacement (with a heavier walled or higher-grade pipe) of all the pipeline segments associated with this special permit modification request, which includes approximately 3.847 miles of pipeline to address class location changes.

Because FGT's contractual obligations do not allow the operating pressure of the pipe to be lowered, pipeline pressure reduction is not a feasible option. Thus, denial of the special permit would require excavation to remove existing pipe, acquiring environmental permits where necessary, and pressure testing the replacement pipeline segments. This action would require the replacement and pressure testing of all the pipeline segments associated with this special permit request, which would include pipeline construction-related impacts to upland and wetland vegetation, soils, and adjacent waterbodies. Furthermore, the "No Action" Alternative would result in construction-related inconveniences for businesses and residences located near the affected area and service disruptions from taking the line out of service during pipe replacement construction and pressure testing activities. Lastly, denial of the special permit would mean the existing special permits (PHMSA-2020-0001) would be rescinded and enhanced IM portions of the special permit conditions would not be implemented.

Alternative 2: "Granted" Alternative

FGT requested a special permit, allowing FGT to maintain the current MAOP despite a class change to Class 3 due to population growth. Without a special permit, in Class 3 locations, FGT would be required to reduce the pressure, replace the pipe, or pressure test the pipe. Under this alternative, the pipelines will be subject to additional safety inspections and criteria. Therefore, the special permit avoids:

1. Construction related impacts along the pipeline right-of-way (ROW);
2. Construction-related inconveniences for businesses and residences located near the affected area;
3. Service disruptions that could result from taking the line out of service during pipe replacement and pressure testing activities; and
4. The cost burdened by FGT's customers from the venting of the natural gas to atmosphere would be avoided.

All segments of pipe in the special permit must be treated as HCAs under an IMP (49 CFR Part 192, Subpart O) as a requirement of the special permit.

VIII. Overview of Special Permit Conditions

To provide an equivalent level of safety in the absence of either lowering the pipeline operating pressure or upgrading the pipe, this 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 that the Special Permit is not inconsistent with pipeline safety.

- FGT specific technical requirements and the special permit conditions granted, Letter of Decision (LOD), special permit analysis and findings (SPAF), FEA and finding of no significant impact (FONSI), and **Attachment A – Segment Integrity Information** for Docket No. PHMSA-2020-0001 can be found the Federal Docket Management System (FDMS) located on the internet at www.regulations.gov.
- The LOD, Special Permit, SPAF, FEA and FONSI can be found on the PHMSA website for special permits issued at <https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued>.

The below section provides an overview of the special permit conditions.

1) **Current Status of Pipe in the Ground**

To ensure that key characteristics of the pipe currently installed in each *special permit segment* is known, records that confirm pipe specifications, successful pressure tests, and girth weld non-destructive tests are required. Should records be unavailable or unacceptable, additional activities as detailed in the special permit must be completed. If these additional activities are not completed or should pipe be discovered that does not meet specific requirements of eligibility, the *special permit segment* must be replaced.

2) **Operating Conditions**

The *special permit inspection areas* must continue to be operated at or below the existing MAOP until a restoration or uprating plan has been approved, if allowed by the special permit. To ensure compliance with special permit conditions, the operator's Operations and Maintenance Manual (O&M), IMP, and Damage Prevention (DP) program must be modified

to implement the special permit conditions. In addition, PHMSA must approve any long-term flow reversals that would impact the *special permit segments*.

3) **Threat Management**

Threats are factors that can lead to the failure of a pipeline. Activities are required to identify, assess, remediate, and monitor threats to the pipeline.

- a) **General activities.** The permit holder must perform annual data integration and identification of threats to which the *special permit inspection area* is susceptible. These activities must include integrity assessments with specific inline inspection tools, strict anomaly repair criteria, and appropriate environmental assessment and permitting. Additional integrity assessment methodologies may be used if allowed by the special permit. Integrity assessments must then be conducted periodically at an interval determined in the special permit for each threat identified.
- b) **External corrosion control requirements.** The special permit requires additional activities to monitor and mitigate external corrosion. These activities include installation and annual monitoring of cathodic protection (CP) test stations, periodic close interval surveys (CIS), and clearing or remediating shorted casings that may impede CP effectiveness. These activities ensure the appropriate level of CP is reaching the pipeline in areas where coating loss or damage has occurred in order to prevent or mitigate external corrosion. In addition, the permittee would be required to develop and implement a plan that identifies and remediates interference from alternating or direct current (AC/DC) sources (such as high-voltage powerlines) that could adversely impact the effectiveness of CP.
- c) **Internal corrosion control requirements.** The special permit includes gas quality specifications to mitigate internal corrosion because internal corrosion is highly dependent on the quality of the gas transported within the pipeline and.
- d) **Stress corrosion cracking (SCC) requirements.** To ensure that SCC is discovered and remediated, any time a pipe segment is exposed during an excavation the permit holder must examine coating to determine type and condition. If the coating is in poor condition, the permit holder must conduct additional SCC analysis. If SCC is confirmed,

the permit holder must implement additional special permit defined remediation and mitigation.

- e) **Pipe seam requirements.** The permit holder must perform an engineering integrity analysis to determine susceptibility to seam threats. The permit holder must re-pressure test any *special permit segments* with an identified seam to ensure the issue is not systemic in nature.
- f) **External pipe stress requirements.** Upon identification of any source of external stress on the pipeline (such as soil movement), the permit holder must develop procedures to evaluate and periodically monitor these stresses.
- g) **Third-party specific requirements.** To assist in identifying the pipeline location and minimizing the chance of accidental pipeline strikes, the permit holder must install and maintain line-of-site markers for the pipeline. The permit holder must perform mitigation activities for any location where a depth-of-cover survey shows insufficient soil cover.

4) **Consequence Mitigation**

To ensure quick response and decreased adverse outcome in the event of a failure, each side (upstream and downstream) of the *special permit segment* must have and maintain operable automatic shutdown valves (ASV) or remote-controlled valves (RCV). The permit holder must monitor valves through a control room with a supervisory control and data acquisition (SCADA) system. In addition to the mainline valves, should a crossover or lateral connect between the valve locations, additional isolation valves may be required.

5) **Post Leak or Failure**

If the *special permit inspection area* experiences an in-service or pressure test leak/failure, the permit holder must conduct a root cause analysis to determine the cause. If the cause is determined to be systemic in nature, the permit holder must implement a remediation plan or the *special permit segment* must be replaced, as determined by the special permit specific conditions.

6) **Class Location Study and Potential Extension of Special permit segment**

The permit holder must conduct a class location study at an interval specified in the special permit. This allows the permit holder to quickly identify extended locations that must comply with the *special permit segment* requirements. The permit holder may extend the *Special permit segments* with proper notification, update of the Final Environmental Assessment, and implementation of all requirements in the special permit.

7) **PHMSA Oversight and Management**

PHMSA maintains oversight and management of each special permit. This includes annual meetings with executive level officers on special permit implementation status, written certification of the special permit, special permit required notification of planned activities, notification of root cause analysis results, and notification prior to certain excavation activities so that PHMSA may observe.

8) **Gas Leakage Surveys and Remediation**

The *special permit segment* and *special permit inspection area* have requirements in the special permit to conduct leakage surveys more frequently than is presently required in 49 CFR 192.706. Gas leakage surveys using instrumented gas leakage detection equipment must be conducted along each *special permit segment* and at all valves, flanges, pipeline tie-ins with valves and flanges, ILI launcher, and ILI receiver facilities in each *special permit inspection area* at least twice each calendar year, not to exceed 7½ months. The type of leak detection equipment used, survey findings, and remediation of all instrumented gas leakage surveys must be documented by operator. The special permit will require a three-step grading process with a time interval for remediation based upon the type of leak.

9) **Documentation**

The special permit holder must maintain documentation that supports compliance with special permit conditions for the life of the pipeline.

IX. Affected Resources and Environmental Consequences

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

FGT is granted a special permit that waives compliance with 49 CFR 192.611(a) and (d) and 192.619(a) for the *special permit segments* totaling 20,314 feet (approximately 3.847 miles) located within three (3) *special permit inspection areas* totaling 185.7 miles. FGT must comply with the special permit conditions within the *special permit segments*.

Implementation of the special permit conditions, including enhanced IMP, provides an additional level of safety without the impacts of excavation to remove existing pipe, install the replacement pipe, and conduct pressure testing of the existing pipe. Thus, FGT will avoid disturbing approximately 3.847 miles of the pipeline ROW, with the exception of additional inspections that may be required to satisfy the conditions of the special permit such as those related to the IM protocols that may require verification digs and potential anomaly evaluations/repairs.

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. Therefore, implementing enhanced inspection and assessment practices within the *special permit inspection areas*, in lieu of replacing and pressure testing the small sections of pipe experiencing the class location changes, extends pipeline safety benefits to a much greater area, and avoids environmental disturbances.

An analysis of environmental resources and potential environmental consequences in the vicinity of the *special permit segments* are provided in the following sections.

Aesthetics: The visual character of the *special permit segments* and the *special permit inspection areas* will not be changed by the approval of this special permit request, except for a requirement to place line of sight markers, the potential addition or upgrade of valves, and possibility of increased maintenance and repair activity due to increased IM requirements. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted. Therefore, the issuance

of the requested special permit will result in minimal aesthetic impacts to the affected *special permit segments* or *special permit inspection areas*.

Denial of the special permit request would require the replacement and pressure testing of all the *special permit segments* associated with this special permit request. Pipe replacement would require removal of the existing pipe and installation of a new pipe. This would result in the use of heavy equipment and ground disturbance. Furthermore, pressure testing would also require disturbances along the pipeline ROW.

Agricultural Resources: Table 4 shows the *special permit segments* where the FGT pipeline ROW is adjacent to agricultural land. This special permit request will not impact agricultural resources in the pipeline ROW where the *special permit segments* or the *special permit inspection areas* are located, except that there may be increased IM activities that could result in temporary disturbance due to excavation sites. The objective of the special permit is to avoid or minimize construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted.

If the special permit request is not granted then pipe replacement and pressure testing would be required, which may temporarily disturb agricultural resources and operations outside of the existing pipeline ROW for the *special permit segments* listed in Table 4.

TABLE 4 - Special Permit Segments where the Pipeline ROW is Adjacent to Agriculture Land					
Special Permit Segment Number	Line Name	County, State	Begin Survey Station (SS)	End Survey Station (SS)	Length (feet)
165897	Mainline Loop STA 18 – STA 19	Brevard, FL	2967+96	2978+65	1,069
165858	Mainline Loop CMPR STA 17-18	Lake, FL	2081+91	2089+15	724
165859	Mainline Loop CMPR STA 17-18	Lake, FL	2089+15	2095+01	586

Air Quality: Air Quality Control Regions (AQCRs) are areas for which implementation plans describe how ambient air quality standards will be achieved and maintained. AQCRs are defined by the U.S. Environmental Protection Area (EPA) and state agencies in accordance with the Clean Air Act of 1970 (CAA). The 1977 CAA Amendments in Section 107 require EPA and states to identify by category those AQCRs meeting and not meeting the U.S. National Ambient Air Quality Standards (NAAQS) which are standards for harmful pollutants. Areas meeting the NAAQS are designated “attainment areas,” and areas not meeting the NAAQS are designated “nonattainment areas.” The designation of an area is made on a pollutant-by-

pollutant basis. All *special permit segments* occur in areas that are designated attainment areas for all pollutants.

This special permit request will not significantly affect the air quality of the *special permit segments* or the *special permit inspection areas*. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that will be necessitated if the special permit was not granted. However, there may be increased maintenance activity which could require the use of heavy equipment due to the increased IM requirements in the special permit conditions.

If the special permit request was not granted pipe replacement would be required, which would necessitate blowing down the pipeline releasing natural gas, a known greenhouse gas.

Furthermore, pipe replacement and pressure testing would be required which would require the temporary use of heavy equipment, which result in temporary construction emissions.

Biological Resources: This special permit request will not significantly impact vegetation (including wetlands), wildlife (including threatened and endangered species), or fishery resources in the pipeline ROW where the *special permit segments* or the *special permit inspection areas* are located. Avoiding pipe replacement will preserve vegetation and habitat along the right of way. However, increased maintenance and IM activities required under the special permit could result in more frequent, though isolated, and temporary impacts due to excavations.

The low-growing herbaceous cover within the pipeline ROW may provide sources of food and nesting sites for various birds, as well as cover for mammals, invertebrates, reptiles, and amphibians. The area has been disturbed previously during the construction of the existing pipeline. Furthermore, the pipeline ROW is maintained in an herbaceous state by routine mowing and clearing activities using mechanical equipment. Therefore, the wildlife found in the vicinity of the *special permit segments* would most likely be tolerant of human disturbance.

The U. S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC) was utilized to identify the Federal and State listed, threatened, and endangered species that could potentially inhabit or traverse the *special permit segments* (USFWS, 2023a). **Table 5** provides a list of the federally and state listed threatened and endangered species potentially occurring in the *special permit segments*. A total of 28 listed species (two (2) mammals, seven

(7) birds, nine (9) reptiles, one (1) insect, and nine (9) plants) were identified as potentially occurring in the *special permit segments*.

The objective of the special permit is to avoid construction or ground disturbance in the pipeline ROW. Therefore, with the special permit, wildlife habitat will not be disturbed resulting in “No effect” to listed species. However, if the special permit request is not granted, then pipe replacement and pressure testing would be required, which would disturb vegetation and wildlife habitat in the vicinity of the existing pipeline ROW, which could potentially disturb listed species such as gopher tortoises and gopher tortoise commensal species (i.e., Eastern indigo snake) in the *special permit segments*.

Any inspection activities related to the *special permit segments* will be conducted within the boundaries of the previously disturbed pipeline ROW. FGT has received a categorical exclusion blanket clearance from the USFWS North Florida Ecological Services Field Office (for *special permit segments* located in Brevard, Lake, and Orange Counties, Florida) and South Florida Ecological Services Field Office (for *special permit segments* located in Osceola County) Ecological Field Offices. Activities to be undertaken within its existing, previously disturbed ROW are compliant with Section 7 of the Endangered Species Act (ESA). The USFWS field offices have determined in its categorical exclusion blanket clearances that work within FGT’s existing ROW is unlikely to adversely impact federally listed species and their habitats.

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
Mammals						
Florida Panther Puma (=Felis) (<i>concolor coryi</i>)	E	E	Osceola	165997 170717	Inhabits dense understory vegetated areas. Require large, contiguous areas of suitable habitat.	No effect / No preferred suitable habitat in the special permit project areas (maintained pipeline ROW).
Puma (=mountain Lion) (=Felis) (<i>concolor</i>) (all subsp. except <i>coryi</i>)	SAT	--	Osceola	165997 170717	All subspecies range from Canada to South America.	No effect / No preferred suitable habitat in the special permit project areas (maintained pipeline ROW).
Birds						
Audubon's Crested Caracara (<i>Polyborus plancus audubonii</i>)	T	T	Brevard	165897 165900 165909	Occurs in dry or wet prairie areas with scattered cabbage palms (<i>Sabal palmetto</i>). It may	No effect / No suitable habitat is present in the special permit project areas (maintained pipeline ROW).
			Orange	165860 169426		

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
				169427 169428	also be found in lightly wooded areas.	
			Osceola	165997 170717		
Eastern Black Rail (<i>Laterallus jamaicensis</i> ssp. <i>Jamaicensis</i>)	PT	--	Brevard	165897 165900 165909	Typically found in salt and brackish marshes with dense cover.	No effect / No suitable habitat is present in the special permit project areas (maintained pipeline ROW).
			Lake	165856 165857 165857 extension (ext.) 165858 165859		
			Orange	165860 169426 169427 169428		
Everglade Snail Kite (<i>Rostrhamus sociabilis plumbeus</i>)	E	E	Brevard	165897 165900 165909	Habitat includes salt and brackish marshes with dense cover.	No effect / No suitable habitat is present in the special permit project areas (maintained pipeline ROW).
			Orange	169426 169427 169428 170717		
			Osceola	165997		
Florida Grasshopper Sparrow (<i>Ammodramus savannarum floridanus</i>)	E	E	Osceola	165997	Requires large areas of frequently burned dry prairie habitat, with patchy open areas sufficient for foraging.	No effect / No suitable habitat is present in the special permit project areas (maintained pipeline ROW).
Florida Scrub Jay (<i>Aphelocoma coerulescens</i>)	T	T	Brevard	165897 165900 165909	Optimal habitat includes sand pine scrub, xeric oak scrub, scrubby flatwoods, and scrubby coastal strand habitats.	No effect / No suitable habitat is present in the special permit project areas (maintained pipeline ROW).
			Lake	165856 165857 165857 ext. 165858 165859		
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Red-Cockaded Woodpecker	E	E	Brevard	165897 165900 165909	Mature 80-120-year-old longleaf or loblolly pine forest.	No effect / No mature 80-120-year-old longleaf or loblolly pine forest

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
<i>(Picoides borealis)</i>			Lake	165856		present in the special permit project areas (maintained pipeline ROW).
				165857		
				165857 ext.		
				165858		
				165859		
			Orange	165860		
				169426		
				169427		
			169428			
Osceola	165997					
	170717					
Wood Stork <i>(Mycteria Americana)</i>	T	T	Brevard	165897	Inhabits emergent wetland, mixed hardwood swamps, sloughs, mangroves, and cypress domes. Nesting trees range from low shrubs to cypress.	No effect / No preferred suitable nesting habitat present in the special permit project areas (maintained pipeline ROW).
				165900		
				165909		
			Lake	165856		
				165857		
				165857 ext.		
				165858		
				165859		
			Orange	165860		
				169426		
				169427		
				169428		
			Osceola	165997		
170717						
Reptiles						
American Alligator <i>(Alligator mississippiensis)</i>	SAT	T[S/A]	Brevard	165897	Inhabits large wetlands including freshwater marshes, salt marsh and brackish waters as well as lakes and streams.	No effect / No preferred suitable habitat in the special permit project areas (maintained pipeline ROW).
				165900		
				165909		
			Osceola	187434		
				187440		
Atlantic Salt Marsh Snake <i>(Nerodia clarkii taeniata)</i>	T	T	Brevard	202967	Estuarine: coastal salt marshes, mangrove swamps, tidal creeks, pools, and ditches.	No effect / Suitable or preferred habitat is not present in special permit project areas (maintained pipeline ROW).
				202970		
				165897		
				165900		
				165909		
Blue-tailed Mole Skink <i>(Eumeces egregious lividus)</i>	T	T	Osceola	187434	Resides in habitats containing rosemary and oak dominated scrub, turkey oak barrens, high pine, and xerc hammocks. Primarily found in areas with open canopies, low quantity of roots, scattered shrubs, and patches of bare sand.	Possible / May be present within open areas with sandy soils in the special permit project areas (maintained pipeline ROW).
				187440		
				202967		
				202970		

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
Eastern Indigo Snake (<i>Drymarchon couperi</i>)	T	T	Brevard	165897 165900 165909	Species prefers xeric longleaf pine sandhills with gopher tortoise burrows and requires very large tracts of land. Commensal species with gopher tortoise burrows. FGT will adhere to USFWS Standard Protection Measures for the Eastern Indigo Snake if excavations are required in an area containing burrows.	No effect / Although suitable habitat is present within the pipeline ROW (i.e., gopher tortoise burrows), the special permit will allow FGT to avoid construction in the pipeline ROW avoiding impacts to this species.
			Lake	165856 165857 165857 ext. 165858 165859		
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Green Sea Turtle (<i>Chelonia mydas</i>)	T	T	Brevard	165897 165900 165909	Found in shallow waters (except when migrating) inside reefs, bays, and inlets with an abundance of seagrass. Beaches are required for nesting.	No effect / No coastal habitat is present in the special permit project areas.
Hawksbill Sea Turtle (<i>Eretmochelys imbricate</i>)	E	E	Brevard	165897 165900 165909	Primarily found in tropical coral reefs. Nesting occurs on undisturbed deep-sand beaches in the tropics.	No effect / No coastal habitat is present in the special permit project areas.
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)	E	E	Brevard	165897 165900 165909	Found primarily in the ocean. Requires sandy nesting beaches backed with vegetation for nesting.	No effect / No coastal habitat is present in the special permit project areas.
Loggerhead Sea Turtle (<i>Caretta caretta</i>)	T	T	Brevard	165897 165900 165909	Florida's sandy Atlantic and Gulf of Mexico beaches are preferred habitat for nesting.	No effect / No coastal habitat is present in the special permit project areas (maintained pipeline ROW).
Sand Skink (<i>Neoseps reynoldsi</i>)	T	T	Lake	165856 165857 165857 ext. 165858 165859	Principally rosemary scrub, but also in sand pine and oak scrubs, scrubby flatwoods, turkey oak ridges within scrub, and even along edges of citrus groves occupying former	No effect / Although suitable habitat is present within the pipeline ROW, the special permit will allow FGT to avoid construction in the pipeline ROW avoiding impacts to this species.
			Orange	165860 169426 169427 169428		

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
					scrub. Requires loose sand (for burrowing).	
Insects						
Monarch Butterfly (<i>Danaus plexippus</i>)	C	C	Brevard	165897 165900 165909	Found in open fields and meadows with milkweed.	Possible / Possibility for species to be present in non-forested areas during spring and summer months.
			Lake	165856 165857 165857 ext. 165858 165859		
			Orange	189579		
			Osceola	165997 170717		
Flowering Plants						
Beautiful Pawpaw (<i>Deeringothamnus pulchellus</i>)	E	E	Brevard	165897 165900 165909	Resides in pine flatwoods consisting of low shrubs and poorly drained soils.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Lake	165856 165857 165857 ext. 165858 165859		
			Orange	165860 169426 169427 169428		
Britton’s Beargrass (<i>Nolina brittoniana</i>)	E	E	Lake	165856 165857 165857 ext. 165858 165859	Inhabits scrub, sandhill, scrubby flatwoods, and xeric hammock.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Carter's Mustard (<i>Warea carteri</i>)	E	E	Brevard	165897 165900 165909	Sandhill, scrubby flatwoods, inland and coastal scrub.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Orange	165860 169426 169427 169428		

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
Lewton's Polygala (<i>Polygala lewtonii</i>)	E	E	Lake	165856 165857 165857 ext. 165858 165859	Oak scrub, sandhill, and transition zones between high pine and turkey oak barrens.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Osceola	165997 170717		
Papery Whitlow-wort (<i>Paronychia chartacea</i>)	T	T	Lake	165856 165857 165857 ext. 165858 165859	Inhabits sand scrub of ancient dunes, in pure, white sand clearings and on the sandy shores of sinkhole lakes. Within these scrub communities, also inhabits disturbed, sandy habitats such as road rights-of-way and recently cleared high pine.	No effect / Although suitable habitat is present within the pipeline ROW, the special permit will allow FGT to avoid construction in the pipeline ROW avoiding impacts to this species.
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Pigeon Wings (<i>Clitoria fragrans</i>)	T	T	Lake	165856 165857 165857 ext. 165858 165859	Inhabits undisturbed areas in Florida scrub habitat, often in the transition between scrub and sandhill areas.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Pygmy Fringe-tree (<i>Chionanthus pygmaeus</i>)	E	E	Lake	165856 165857 165858 165859	Inhabits scrub, sandhill, and xeric hammock, primarily on the Lake Wales Ridge. May form thickets with evergreen scrub oaks and shrubs.	No effect / Preferred suitable habitat not present in special permit project areas (maintained pipeline ROW).
			Osceola	165997 170717		
Sandlace (<i>Polygonella myriophylla</i>)	E	E	Orange	165860 169426 169427 169428	Inhabits within scrub habitats in areas of bare white or yellow sand created by moderate disturbance.	No effect / Although suitable habitat is present within the pipeline ROW, the special permit will allow FGT to avoid construction in the pipeline ROW avoiding impacts to this species.
			Osceola	165997 170717		
Scrub Buckwheat (<i>Eriogonum</i>)	T	T	Lake	165856 165857 165857 ext.	Occurs in sandhill, oak-hickory scrub on	No effect / Preferred suitable habitat not present in special permit

TABLE 5 - Federally and State Listed Threatened and Endangered Species Potentially Occurring within the Special Permit Segments						
Species	Federal Status	State Status	County	Segment CID No.	Habitat Description	Determination of Effect / Rationale
<i>longifolium</i> var. <i>gnaphalifolium</i>)				165858 165859	yellow sands, high pineland between scrub and sandhill, turkey oak barrens.	project areas (maintained pipeline ROW).
			Orange	165860 169426 169427 169428		
			Osceola	165997 170717		
Source: USFWS, 2023a. Notes: E - Endangered T - Threatened C - Candidate Species PT – Proposed Threatened HCC – High Conservation Concern SAT - Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.						

Conservative Land: The Florida Natural Areas Inventory (FNAI) maintains an inventory of the state's conservation land holdings (FNAI, 2023). None of the *special permit segments* cross conservation land holdings.

Climate Change:

The scope and duration of any activities associated with the new *special permit segments* will have an insignificant impact on climate change. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW. The special permit would result in minimal impacts on air quality in the *special permit inspection areas* due to the additional surveillance, assessment, and maintenance activities required by the special permit.

If the special permit was not granted (“No Action” Alternative), pipe replacement would be required, which would necessitate the use of heavy equipment during construction and blowing down the pipeline releasing natural gas, a known greenhouse gas. To minimize greenhouse gas (GHG) emissions, methane capture or pressure reduction techniques would be used to remove most of the gas from the segment being blown down. The residual, low-pressure gas would be vented to atmosphere. The “No Action” Alternative would have a more substantial, though still minimal, effect on air quality, with additional emissions that are temporarily caused by equipment used during excavation, pipe removal, pipe replacement, and pipe installation.

Cultural Resources: There are no cultural, archaeological, or paleontological resources that will be impacted by this special permit request. The objective of the special permit is to avoid construction in the ROW.

Any inspection activities associated with the *special permit segments* and *special permit inspection areas* will be conducted within the boundaries of FGT's existing aboveground facilities (i.e., compressor station and regulator stations) and maintained pipeline ROW. FGT was granted a categorical exclusion blanket clearance certificate from the Florida Division of Historical Resources for activities to be undertaken within its existing, previously disturbed ROW 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 Florida State Historic Preservation Office (SHPO) concurred with its categorical exclusion for work within existing ROW and stated that "no known historic properties will be affected by this undertaking."

Environmental Justice: As shown in **Table 6 - Demographic Information for Special Permit Segment – Using EPA EJScreen**, five *special permit segments* (i.e., *Special Permit Segment Nos. 169426, 169427, 169428, 165997, 170717*) located in Orange and Osceola Counties contain a higher proportion (> 50%) of individuals identified as minority. Two of the five *special permit segments* (i.e., *Special Permit Segment Nos. 165997 and 170717*) that are located in Osceola County, also contain a higher proportion (>50%) of individuals identified as a low-income population. None of the *special permit segments* are located in predominantly linguistically isolated populations.

In any event, the activities of the special permit are intended to maintain safety along all of the *special permit segments*, reduce environmental impacts, and increase the level of the safety along the *special permit inspection areas* and will not have a disparate impact on any minority, low income, or limited English proficiency populations.

A pipeline failure may take the form of a leak or a rupture. The consequences would be similar in both cases, but typically would be more serious in the event of a rupture. If a rupture occurs and the released gas ignites, the thermal radiation from the fire is a hazard to people outdoors, potentially causing serious injury or death depending on distance from the rupture. The thermal

radiation may also result in spontaneous or piloted ignition of houses and other structures, or of nearby vegetation. A flammable mixture of natural gas and air will not explode unless confined, for example by walls or densely packed obstructions. An energetic ignition source is usually also needed to generate significant overpressures. Natural gas explosions resulting from pipeline releases are therefore rare. An unignited release from a pipeline typically does not result in injury to people. Natural gas is not toxic but a simple asphyxiant. However, an unignited release will have environmental consequences because natural gas (unburned) is a powerful GHG.

If the proposed special permit is granted, the pipeline in the *special permit inspection area* will receive additional inspection and monitoring to provide more information about the condition of the pipe so that any integrity issues can be remediated to avoid risk. The “No Action” Alternative would require compliance with Federal regulation 49 CFR 192.611(a). This would require the replacement of the existing pipeline in the special permit segment with new pipe that meets the requirements of 49 CFR Part 192. However, the additional inspection and 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 regulations. Accordingly, both alternatives are expected to lead to a similar safety result.

TABLE 6 - Demographic Information for Special Permit Segments – Using EPA EJScreen					
County	Special Permit Segment Number	Total Population (Along Special Permit Segment) ^a	Minority*/People of Color** Population	Low Income Population	Linguistically Isolated
Brevard	165897	690	25%	16%	1%
	165900	377	17%	27%	0%
	165909	62	20%	14%	1%
Lake	165856	9	12%	34%	0%
	165857	101	25%	24%	0%
	165857 ext.	224	17%	19%	0%
	165858	177	12%	15%	0%
	165859	286	12%	15%	0%
Orange	165860	74	44%	25%	4%
	169426	646	55%	12%	5%
	169427	1,526	59%	12%	2%
	169428	1,591	59%	12%	2%
Osceola	165997	433	78%	54%	11%
	170717	428	78%	54%	10%

TABLE 6 - Demographic Information for Special Permit Segments – Using EPA EJScreen					
County	Special Permit Segment Number	Total Population (Along Special Permit Segment) ^a	Minority*/People of Color** Population	Low Income Population	Linguistically Isolated
Source: U.S. EPA, 2023. EJScreen : Environmental Justice Screening and Mapping Tool (0.5-Mile Radius). Available online at : https://ejscreen.epa.gov/mapper/ . Notes: Minority*: The term minority is used in the currently active DOT Environmental Justice Order 5610.2(a), available at: https://www.transportation.gov/transportation-policy/environmental-justice/departement-transportation-order-56102a People of Color**: The term people of color is used in the EPA’s Environmental Justice Screening and mapping tool (EJSCREEN). An overview of demographic indicators through EJSCREEN is available at: https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen					

Geology and Soils: The general characteristics of the *special permit segments* consist of relatively flat terrain and gently sloping highlands, with few natural geologic exposures. The *special permit segments* are in the Atlantic Plain physiographic region of the U.S. Most of the *special permit segments* located in peninsular Florida will traverse the Gulf Coastal Lowlands.

Major Land Resource Areas (MLRAs) are geographically associated land resource units, usually encompassing several thousand acres, characterized by a particular pattern of soils, geology, climate, water resources, and land uses. The *special permit segments/inspection areas* cross the following MLRAs:

- South-Central Florida Ridge (Lake County);
- Southern Florida Flatwoods (Osceola, Orange, and part of Brevard County); and
- Southern Florida Lowlands (part of Brevard County).

In the South-Central Florida Ridge MLRA the soils generally are very deep, excessively drained to somewhat poorly drained, and loamy or sandy. Within the Southern Florida Flatwoods MLRA the soils are deep or very deep, poorly drained, or very poorly drained, and loamy or sandy. In the Southern Florida Lowlands, soils are deep or very deep, poorly drained, or very poorly drained, and loamy or sandy (USDA NRCS, 2019).

The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted. Therefore, the issuance of the requested special permit will not result in soils impacts to the affected *special permit segments* or *special permit inspection areas*. Furthermore, no changes to geologic conditions will occur.

Denial of the special permit request would require the replacement and pressure testing of all the pipeline segments associated with this special permit request. Pipe replacement would require vegetation clearing, removal of the existing pipe and installation of a new pipe. The removal of the vegetative cover and ground disturbance exposes soils to the effects of wind and water which increases the potential for soil erosion and the transport of sediment to sensitive resource areas. Furthermore, pressure testing would also expose the soil to water which increases the potential for soil erosion and transport of sediment to sensitive areas along the pipeline ROW.

Mineral Resources: Florida's mineral commodities include limestone, sand, gravel, clay, heavy minerals, phosphate, and peat. The *special permit segments* are located along FGT's existing pipeline system and do not cross any areas mined for mineral resources.

Seismic Hazards: Seismic hazards include earthquakes, surface faulting, and soil liquefaction. The U.S. Geological Survey's (USGS's) National Earthquake Hazard Program has developed a series of maps that depict the estimated probability for seismic hazards. The Program's National Seismic Hazard Maps are derived from seismic hazard curves calculated on a grid of sites across the U.S. that describe the annual frequency of exceeding a set of ground motions. Based on the latest long-term model, 2014, the *special permit inspection areas* are characterized as falling into the category of the lowest hazard potential (USGS, 2019a). The USGS has also produced a 2018 one-year (short-term) probabilistic seismic hazard forecast for the central and eastern U.S. from induced and natural earthquakes. Again, the *special permit inspection areas* fall within the category of lowest potential with a less than 1-percent chance of potentially minor-damage ground shaking in 2018 (USGS, 2019b). The low seismic risk in the project special segments and inspection areas is also a limiting factor for liquefaction to occur. As a result, the likelihood of soil liquefaction to occur in the *special permit inspection areas* is low.

Subsidence: Ground subsidence is the local downward movement of surface material with little or no horizontal movement. Karst is a landscape formed by the dissolution of soluble bedrock that is conducive to land subsidence that exists in many areas in Florida. The Florida Department of Environmental Protection (FDEP) Map Direct database includes a public mapping spatial data library with locational information on known subsidence incidents. Review of FDEP's subsidence database indicates no karst features are located within 500 feet of the *special permit segments* (FDEP, 2023).

Indian Trust Assets: Any work associated with the *special permit segments* will have no impact on Native Americans or any land owned or otherwise administered by Native American tribes. The scope and duration of this project will have little to no effect or impact on the socioeconomics in the vicinity of this project. No tribal land exists along the *special permit segments* thus tribal coordination is not required.

Land Use: Land use within the *special permit segments* consists of maintained pipeline ROW. Land use adjacent to the ROW in the vicinity of the *special permit segments* includes forest, agriculture, open space, wetland and waterbodies, and residential/industrial land.

The objective of the special permit is to avoid or minimize construction or ground disturbances in the pipeline ROW that will be necessitated if the special permit was not granted. Therefore, this special permit request will not impact land use or planning. Further, FGT will avoid disturbing the adjacent property owners to the pipeline ROW.

Any inspection activities associated with the *special permit segments* and *special permit inspection areas* will be conducted within the boundaries of FGT's existing aboveground facilities (i.e., compressor station and regulator stations) and maintained pipeline ROW. Therefore, this special permit will not require permitting above and beyond what is required for normal pipeline operation and maintenance activities. However, if the special permit request is not granted, then pipe replacement and pressure testing would be required, which would disturb land uses adjacent to the *special permit segments*.

Noise: Noise levels will not change in the *special permit segments* or the *special permit inspection areas* as a result of the approval of this special permit request. Therefore, the scope and duration of any activities associated with the *special permit segments* will have little to no impact on noise levels in the vicinity of the pipeline. However, if the special permit request is not granted then pipe replacement and pressure testing would be required, which would result in temporary increases in noise during construction of these activities. Maintenance activities associated with the special permit conditions may result in minimal and temporary noise impacts. However, it is anticipated that these noise impacts will be much less than the replacement of the affected pipeline segments.

Recreation: The *special permit segments* are not located in a designated State, county or local park, recreation area, state forest campground or wildlife management area. The scope and

duration of any activities associated with the *special permit segments* would have little to no impact on recreation in the vicinity of the pipeline.

Safety: Class locations are based upon the population (dwellings for human occupancy) within a “class location unit”, which is defined as an onshore area that extends 220 yards on either side of the centerline of any continuous 1-mile of pipeline. These locations are determined by surveying the pipeline for population growth. More conservative safety factors are required as the number of dwellings for human occupancy (population growth) increase near the pipeline. Pipeline operators must conduct surveys and document population growth within 220 yards on either side of the pipeline. A higher population along the pipeline may trigger any of the following for the pipeline segment with the higher population: A reduced MAOP, a new pressure test at a higher pressure, or new pipe with either or both heavier walled or higher-grade pipe.

The special permit conditions are designed to identify and mitigate integrity issues that could threaten the *special permit segments* and cause pipeline failure. The effect of the monitoring and maintenance requirements in the special permit conditions will ensure the integrity of the pipe and protection of the population living near the *special permit segments* to a similar degree of a lower MAOP, new pressure test, or a thicker walled or higher-grade pipe without the enhanced IM protections.

The safety risk with respect to this request for a special permit focuses on maintaining the integrity of the pipeline and on the risk it poses to the increased population to mitigate a failure of this pipeline. Granting this special permit does not increase the PIR, which is defined in 49 CFR 192.903 as the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property of the pipeline. However, the risk from the increased human population around the pipeline would be mitigated through increased IMP.

The special permit requires IM inspections for *special permit inspection areas* adjacent to the *special permit segments*, which would lower the risk in the *special permit inspection areas* and beyond. FGT would implement the special permit conditions in the *special permit inspection areas* for the duration of the special permit, and PHMSA would oversee compliance.

Performance of the conditions in the special permit provides an equivalent or greater level of safety for the public and environment and imposes no additional safety risks as a result of the

waived regulation. As already noted, all of the *special permit segments* included under the special permit would be treated as HCAs with the additional risk analysis and remedial activities associated with this designation. The special permit also includes a number of conditions that address potential safety risks. Among these are incorporation of these segments into the FGT Integrity Management Program, close interval corrosion surveys, implementation of a cathodic protection reliability improvement plan, an ILI program with intervals not to exceed seven (7) years, anomaly evaluation and repair meeting more stringent criteria, additional testing and remediation of interference currents caused by induced alternating current sources, pipe seam evaluations, criteria for the identification of pipe properties, installation of line-of-sight markers and the integration of all inspection and remediation data.

The consequences of a natural gas release would not be impacted as a result of the special permit and the potential for such an event is expected to be less likely with the added safety programs noted above. However, if PHMSA denied the special permit request and FGT opted to lower the pressure, the PIR would be smaller in the event of a pipeline failure. FGT notes its contractual obligations would not allow for a lowering of pressure and FGT would need to replace the existing pipeline. As compared to current operation, the PIR as calculated in accordance with 49 CFR 192.903 would not change under the special permit since maximum operating pressure and pipe diameter will not change, thus there would be no additional impact on the public.

Operation under the special permit conditions that provides an additional level of safety is expected to have a positive impact on pipeline longevity and reliability.

Socioeconomics: The demographic information for the *special permit segments* using EPA EJScreen (2023) is shown in **Table 6**. The total population within a 0.5-mile radius of each of the *special permit segments* ranges from 9 (Segment 165856) in Lake County to 1,591 (Segment 169428) in Orange County. The low-income population within a 0.5-mile radius of each of the *special permit segments* ranges from 12% in Orange County to 54% in Osceola County. Two *special permit segments* (i.e., Segment Nos. 165997 and 170717) in Osceola County are located in predominantly (>50 percent) low-income populations. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted. As described in the special permit,

FGT must apply alternative risk control measures to the *special permit segments* to provide an acceptable margin of safety and environmental protection to meet the requirements of 49 CFR 192.611 and 192.619 as outlined in the special permit conditions. Implementing enhanced inspection and assessment practices throughout the inspection areas, in lieu of replacing the small sections of pipe experiencing the class location changes, extends pipeline safety benefits to a much greater area, and thus will not have an adverse impact on the local population. In addition, avoiding pipe excavation, replacement, and pressure testing would minimize costs to the operator, would avoid delivery interruptions and supply shortages, and avert environmental disturbance. Thus, the increased safety measures associated with the special permit would benefit local populations.

Topography: The topography of the area surrounding the requested *special permit segments* is flat, open land. The general characteristics of the *special permit segment* project area consist of relatively flat terrain and gently sloping highlands.

The topography of the *special permit segments* and the *special permit inspection areas* will not be changed by the approval of this special permit request. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted.

Denial of the special permit request would require the replacement and pressure testing of all the pipeline segments associated with this special permit request. Pipe replacement would require removal of the existing pipe and installation of a new pipe. Effects from construction could include disturbance of the natural topography along the pipeline ROW due to trenching and grading activities. Furthermore, pressure testing would also require disturbances along the pipeline ROW. However, following construction, all areas would be restored as close as practicable to their preconstruction contours.

Transportation: If the *special permit segments* need to be accessed to perform required tasks under the special permit, existing ROW access points will be used. The special permit will not increase traffic or require additional roads to be constructed or more frequently maintained. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted.

Water Resources: According to USFWS National Wetland Inventory (NWI) mapping data, three (3) *special permit segments* cross wetlands and one (1) *special permit segment* crosses a perennial waterbody (canal/ditch) (USFWS, 2023b). Palustrine emergent wetlands (PEM) are located within the existing maintained pipeline ROW. Palustrine forested (PFO) wetlands are located adjacent to the existing pipeline ROW. **Table 7** lists the wetlands and waterbodies crossed by the *special permit segments*.

The objective of the special permit is to avoid or minimize construction or ground disturbance in the pipeline ROW. Therefore, wetlands and waterbodies along the *special permit segments* and *special permit inspection areas* would undergo less disturbance if the special permit were granted. Some disturbance could occur to more rigorous maintenance and repair activities. However, if the special permit request was not granted then pipe replacement and pressure testing would be required, which would disturb wetlands and waterbodies to a greater extent along the *special permit segments* identified in **Table 7** during construction. Furthermore, pressure testing would potentially require withdrawal of hydrostatic test water from surface water sources which could temporarily affect the biological use of the waterbody if the diversion were to constitute a large percentage of the source's total flow or volume. Potential impacts resulting from the discharge of hydrostatic test waters to upland areas would generally be limited to erosion of soils.

TABLE 7 - Wetlands and Waterbodies Crossed by the Special Permit Segments				
Special Permit Segment Number	Line Name	County, State	Wetland or Waterbody	Approximate Crossing Length (ft.)
165909	Mainline Loop STA 18 – STA 19	Brevard, FL	Canal/Ditch	12
169427	Mainline Loop STA 18 – STA 19	Orange, FL	PEM/PFO	240
169428	Mainline Loop STA 18 – STA 19	Orange, FL	PEM/PFO	85
170717	MLV 18-1 To C/S 19	Osceola, FL	PEM/PFO	65
Source: USFWS, 2023b				
Notes:				
PEM – Palustrine Emergent Wetland (i.e., within pipeline ROW)				
PFO – Palustrine Forested Wetland (i.e., outside of pipeline ROW)				

The *special permit segments* traverse three (3) major aquifer systems including the surficial aquifer system, the intermediate aquifer system, and the Floridan aquifer system. The deeper Floridan aquifer system is the primary source of drinking water for central Florida.

Wellhead protection areas have been established by the FDEP to protect drinking water supplies. FGT searched FDEP Map Direct to identify Protected Source Waters. No state-designated well-head protection areas are crossed by the *special permit segments* (FDEP, 2023).

The EPA defines a sole source aquifer as where the aquifer supplies at least 50 percent of the drinking water for its service area; and there are no reasonably available alternative drinking water sources should the aquifer become contaminated. There are no EPA sole source aquifers located within the vicinity of the *special permit segments*.

Aquifers will not be disturbed if the special permit is granted, although temporary and targeted excavations may occur to comply with increased maintenance and repair activities. However, if the special permit request is not granted then pipe replacement and pressure testing would be required, which could temporarily disturb the surficial aquifer system to a much greater extent during construction.

B. Comparative Environmental Impacts of Alternatives

The special permit requires FGT to increase IM inspections for pipeline inspection areas adjacent to the *special permit segments*, which would lower the risk in areas beyond the *special permit segments*. FGT must conduct IM type procedures (conditions in the special permit) on the *special permit inspection areas* as defined in the special permit. FGT will implement the conditions in *special permit inspection areas* for the duration of the special permit.

As PHMSA recognized in its June 29, 2004, Federal Register Notice (69 FR 38948), implementing additional preventative and mitigative measures enables a pipeline operator 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 *special permit segments* and *special permit inspection areas*, in lieu of replacing small segments of pipe experiencing the class location change, extends pipeline safety benefits to a much greater area along the pipeline. In addition, avoiding pipe excavation and replacement will minimize costs to the operator, will avoid delivery interruptions and supply shortages, and avert environmental disturbance.

While the special permit avoids the full replacement of affected pipe, the special permit conditions require monitoring and maintenance that could lead to minor excavations and repair

or replacement of some pipe. The effect of the monitoring and maintenance requirements in the special permit conditions will ensure the integrity of the pipe and protection of the population living near the *special permit segments* to a similar degree of a lower MAOP, new pressure test, or a thicker walled or higher-grade pipe without the enhanced IM protections.

Performance of the special permit conditions provides an equivalent level of safety for the public and environment; and imposes no additional safety risks as a result of the waived regulation. As already noted, all the *special permit segments* included in the special permit will be treated as HCAs with the additional risk analysis and remedial activities associated with this designation. The special permit also includes a number of conditions that address potential safety risks.

In the event that PHMSA denied the special permit, it would have no authority to decide whether FGT achieved full compliance with 49 CFR Part 192 through pressure reduction or pipeline segment replacement. Nonetheless, FGT reports that its contractual obligations would not allow the operating pressure of the pipe to be lowered. Thus, the PIR of a pipeline failure will be the same whether the pipe operates under a special permit, is replaced, or pressure tested. Likewise, human safety as a result of pipeline failure would not be affected differently under either the action or no-action alternatives. Furthermore, the special permit enhanced IM conditions are designed to identify and mitigate integrity issues that could threaten the *special permit segments* and cause failure.

FGT will evaluate the potential environmental consequences and affected resources of land disturbances and adjacent waterbody impacts caused by construction activities (including adding, modifying, replacing, or removing any facility) associated with any FGT activity. These activities are regulated by the Federal Energy Regulatory Commission (FERC) under Section 7 of the Natural Gas Act (NGA) and are subject to Federal, State, and local environmental authorizations and require a review by FGT Environmental Services staff prior to the start of work, incorporation of environmental requirements into the project implementation, and ensuring outstanding (environmental) requirements are incorporated into facility operation.

Approval of the special permit will have a positive impact to landowners and negligible, if any, environmental impact for the *special pipeline segments* that do not require pressure testing or replacement. FGT will avoid disturbing the ROW of property owners except for the additional

inspections that may be required to satisfy the conditions of the special permit such as those related to the IMP for HCAs, and potential anomaly evaluations/repairs. If the special permit was not granted, 49 CFR 192.611(a) and (d) and 192.619(a) would require pipe replacement and pressure testing. This would result in temporary disturbances to the natural environment in the *special permit segments*. The consequences of any spill or release would not be changed as a result of the special permit and the potential for such an event is expected to be less likely with the added safety programs noted above.

X. Consultation and Coordination

The following FGT employees were consulted in the preparation of this document:

- Eric Amundsen, Senior VP Operations
- Chris Lason, VP of Asset Integrity
- Dave Shellhouse, VP of Operation
- Mike Teal, Director of Technical Operations
- Robert Fleming, Senior Manager, Engineering and Construction
- Bob Bouchard, Staff Engineer, Pipeline Integrity
- Eric Hildebrand, Senior Engineer, Pipeline Integrity
- Eric Williams, Senior Engineer, Engineering and Construction
- Kristin Benbow, Environmental Scientist

The following PHMSA employees were involved in the preparation of this document:

- Amelia Samaras, Attorney
- Joshua Johnson, Engineer
- Steve Nanney, Engineer

XI. Response to Public Comments Placed on Docket PHMSA-2020-0001

PHMSA published the special permit request in the Federal Register (85 FR 17176) for a 30-day public comment period from March 26, 2020, through April 27, 2020. The special permit application from FGT, draft environmental assessment, and draft special permit conditions were available in Docket No. PHMSA-2020-0001 at: www.regulations.gov for public review.

PHMSA received no comments on this special permit application during the comment period.

PHMSA received the same comment repeated three (3) times several months after the close of

the comment period. The comment criticized special permit application processing delay, but the comment did not provide an opinion on the safety or merit of this specific proposed special permit.

- PHMSA published the special permit request for *special permit segment 165857 extension* in the Federal Register (88 FR 34927) for a 30-day public comment period from May 31, 2023, through June 30, 2023. The special permit application from FGT, draft environmental assessment, and draft special permit conditions were available in Docket No. PHMSA-2020-0001 at: www.regulations.gov for public review. PHMSA received no comments on this special permit application during the comment period.

XII. Finding of No Significant Impact

In consideration of the analysis and special permit conditions explained above, PHMSA finds that no significant negative impact will result from the issuance and full implementation of the above-described special permit to waive the requirements of 49 CFR 192.611(a) and (d) and 192.619(a) for the *special permit segments*, which consists of approximately 3.847 miles of 26-inch and 30-inch diameter pipelines located in Brevard, Lake, Orange, and Osceola Counties, Florida. This special permit will require FGT to implement the special conditions that apply to the operations, maintenance, and IM of the *special permit segments* and *special permit inspection areas*.

- Based on the analysis and implementation by FGT of the special permit conditions explained in this FEA and Finding of No Significant Impact (FONSI), PHMSA finds that no significant negative impact will result from the additional of the extension of *special permit segment 165857* to this special permit.

XIII. Bibliography

Florida Department of Environmental Protection (FDEP). 2023. Florida Map Direct. Available online at:

[https://ca.dep.state.fl.us/mapdirect/#Division%20of%20Water%20Restoration%20Assistance%20\(DWRA\)](https://ca.dep.state.fl.us/mapdirect/#Division%20of%20Water%20Restoration%20Assistance%20(DWRA)). Accessed January 2023.

Florida Natural Areas Inventory (FNAI). 2023. Florida Conservation Lands data. Available online at: <https://www.fnai.org/conslands/conservation-lands>. Accessed January 2023.

U.S. Fish and Wildlife Service (USFWS). 2023a. Information, Planning, and Conservation System (IPaC) Trust Resource Report. Available online at: <http://ecos.fws.gov/ipac/>. Accessed January 2023.

USFWS. 2023b. National Wetlands Inventory Data. Available at: <https://www.fws.gov/wetlands/Data/Data-Download.html>. Accessed January 2023.

U.S. Geologic Survey (USGS). 2019a. 2018 Long-term Model. Available online at: <https://www.usgs.gov/media/images/2018-long-term-national-seismic-hazard-map>. Accessed January 2023.

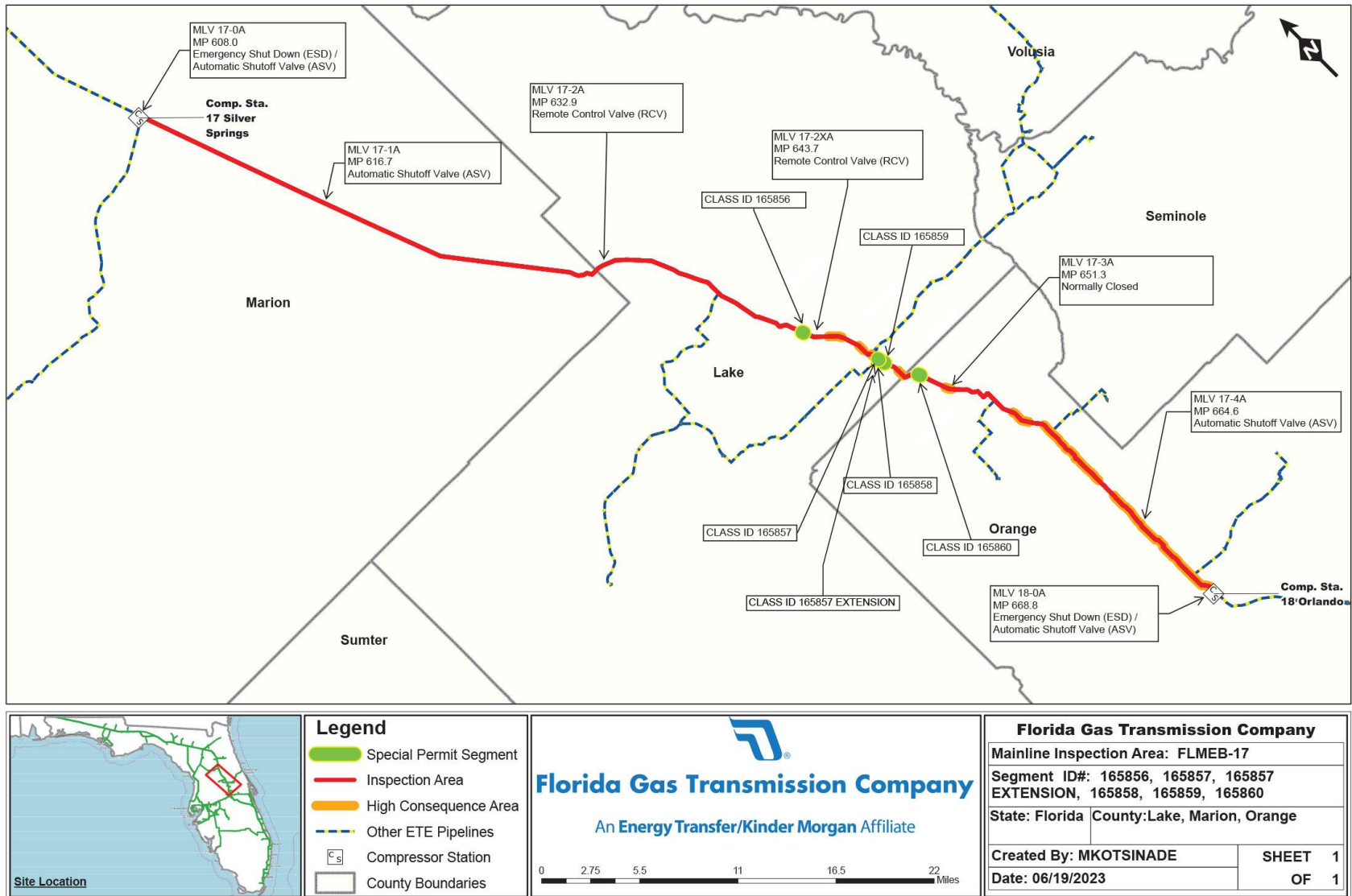
USGS. 2019b. Short-term Induced Seismicity Models, 2018 One-Year Model. Available online at: <https://earthquake.usgs.gov/hazards/induced/index.php#2018>. Accessed January 2023.

The special permit with conditions granted to FGT, LOD, SPAF, FEA and FONSI, and **Attachment A – Segment Integrity Information** for Docket No. PHMSA-2020-0001 can be found the FDMS located on the internet at www.regulations.gov.

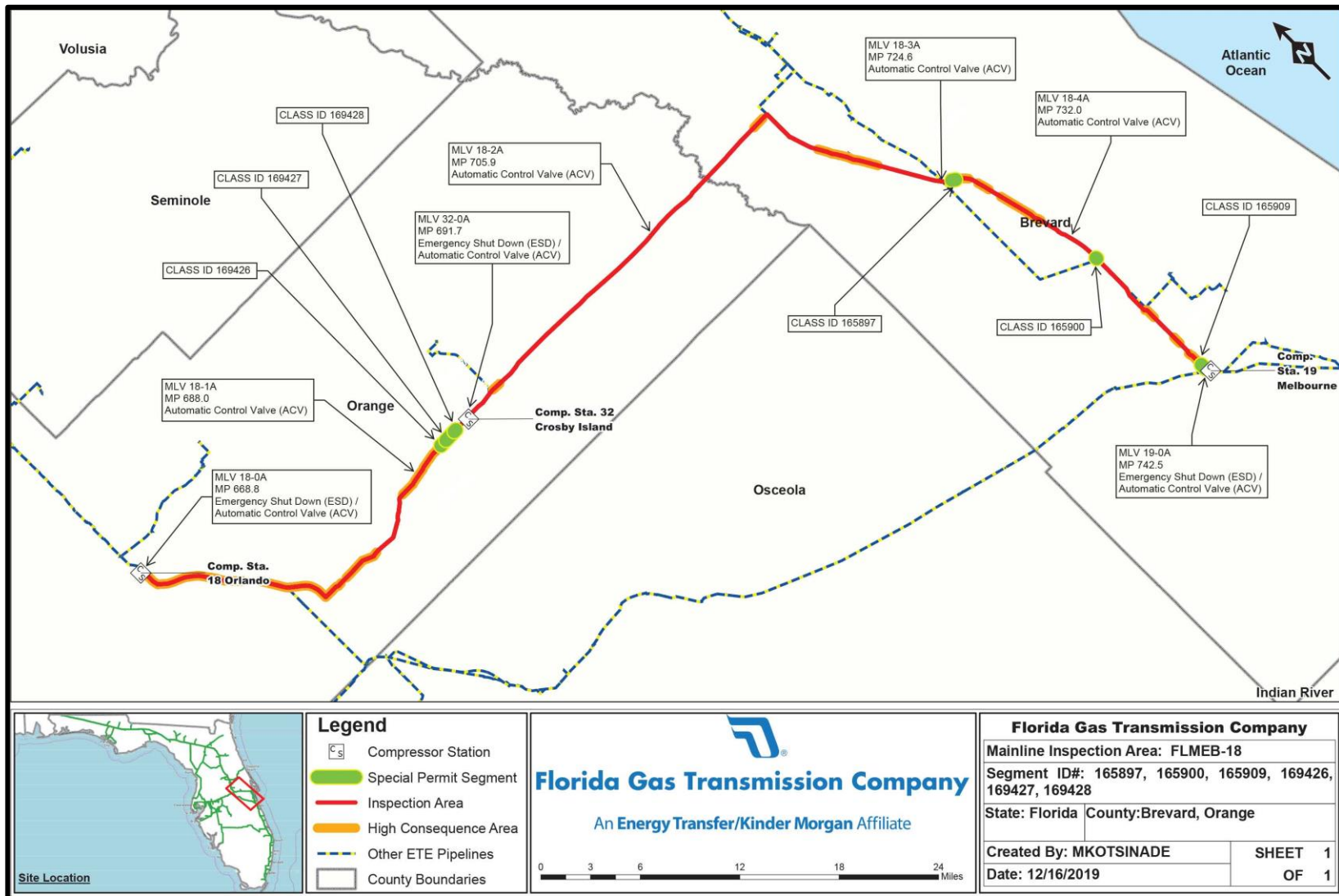
The LOD, Special Permit, SPAF, FEA and FONSI can be found on the PHMSA website for special permits issued at <https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued>.

Completed by PHMSA in Washington, DC on: August 22, 2023

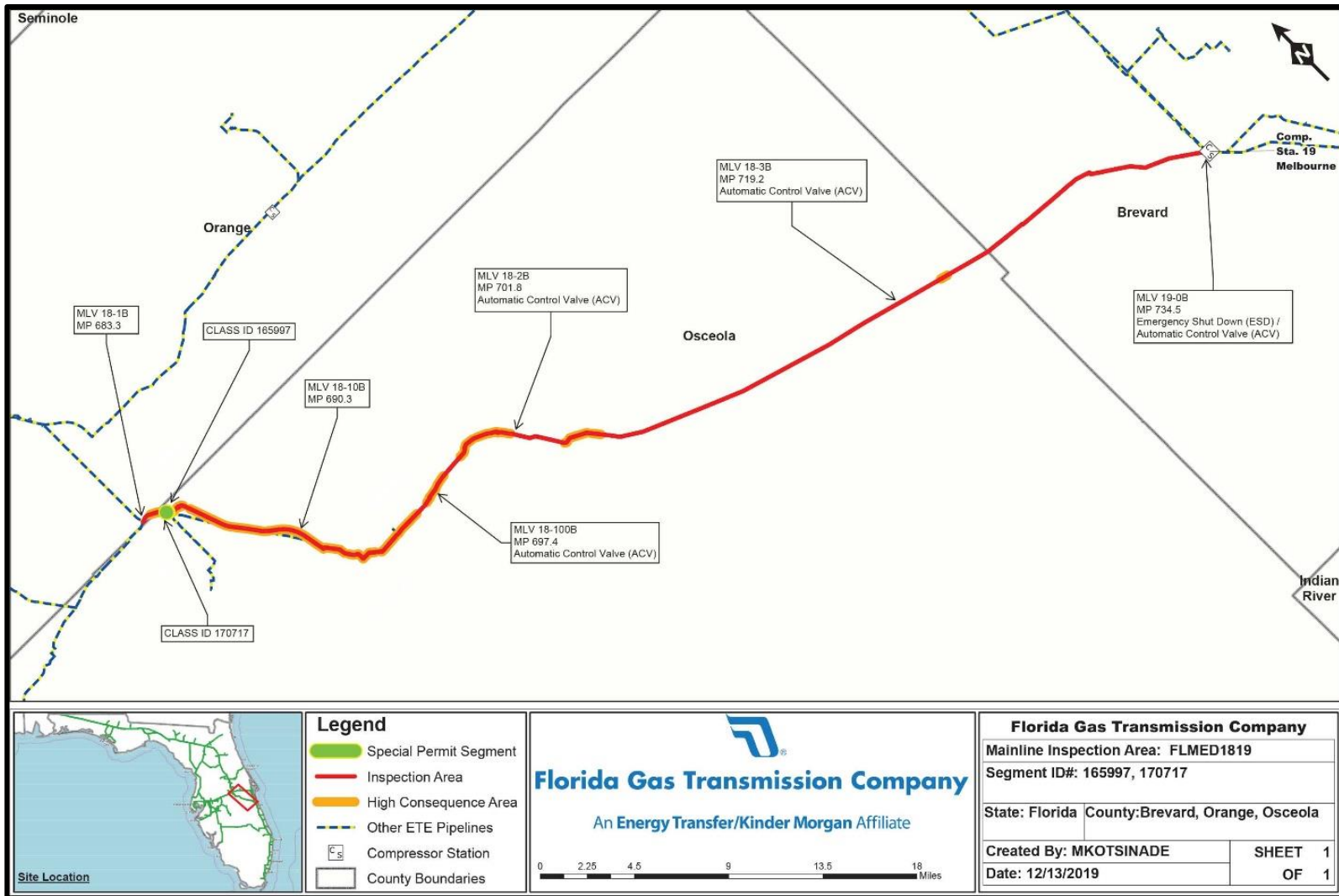
Attachment B-1 - FGT Route Map - Special Permit Segments and Special Permit Inspection Area



Attachment B-2 - FGT Route Map - Special Permit Segments and Special Permit Inspection Area



Attachment B-3 - FGT Route Map - *Special Permit Segments and Special Permit Inspection Area*



LAST PAGE OF FEA and FONSI