

**BEFORE THE
RAILROAD COMMISSION OF TEXAS**

APPLICATION FILED BY OCELOT ENERGY	§	
MANAGEMENT FOR A WAIVER PURSUANT	§	
TO COMMISSION RULE § 8.125 FOR THE	§	GAS UTILITIES DOCKET
PIPELINE REHABILITATION UTILIZING	§	No. 10897
FLEXSTEEL FOR A HIGHLY VOLATILE	§	
LIQUID (HVL) PIPELINE SYSTEM	§	
LOCATED IN HARRIS COUNTY, TEXAS	§	

FINAL ORDER

Notice of Open Meeting to consider this Order was duly posted with the Secretary of State within the time period provided by law pursuant to Chapter 551 of the Texas Government Code. The Railroad Commission of Texas ("Commission") hereby adopts the following findings of fact and conclusions of law and orders as follows:

FINDINGS OF FACT

1. On September 17, 2019, Ocelot Energy Management ("Ocelot" or "Applicant") filed with the Commission's Pipeline Safety Department ("Pipeline Safety") a waiver request pursuant to Commission Rule § 8.125 (Waiver Request) to rehabilitate a pipeline segment utilizing pipe and fitting materials manufactured by FlexSteel Pipeline Technologies ("FlexSteel").
2. The proposed pipeline is located in Harris County, Texas.
3. Ocelot's requests Commission approval to use FlexSteel pipe to rehabilitate a 9.2-mile section of the Purity #7 pipeline between the ExxonMobil Olefins Plant and the proposed Cut Point 10, west of the San Jacinto River. A vicinity map is attached to the Order as Attachment 1.
4. According to Ocelot, FlexSteel is a less-intrusive option to restore pipeline system integrity than removing existing pipeline segments and new construction in high consequence areas ("HCAs").
5. Ocelot represented that it complied with all notice requirements contained in Commission Rule § 8.125(e) (Notice).
6. No protests from affected persons were received by the Commission.
7. On January 10, 2020, the Pipeline Safety Director forwarded the file, along with a written recommendation that the waiver be granted subject to certain special conditions, to the Hearings Division for the preparation of an order, in accordance with Commission Rule § 8.125(g)(1)(A).
8. Ocelot does not oppose the special conditions recommended by Pipeline Safety.

CONCLUSIONS OF LAW

1. The Commission has original jurisdiction to consider Ocelot's application pursuant to TEX. UTIL. CODE § 121.201 and 49 U.S.C. § 60105.
2. Proper legal notice was timely given to all persons and entities entitled to notice under applicable statutes and rules.
3. All things have occurred and have been accomplished to give the Commission jurisdiction in this case. The Commission has jurisdiction under statutes and rules, including 49 C.F.R. Parts 192 and 195 and Commission Rule § 8.125, to authorize waivers to use pipe not manufactured in accordance with a listed specification.
4. Ocelot is required to comply with all other minimum safety standards set forth in 49 C.F.R. Parts 192 and 195 as they apply to normal operation and maintenance.
5. The application for this waiver was not filed to avoid the expense of safety compliance or to correct an existing violation.
6. Granting the requested waiver is not inconsistent with pipeline safety.

IT IS THEREFORE ORDERED by the Railroad Commission of Texas that the application of Ocelot Energy Management for a waiver pursuant to Commission Rule § 8.125 (Waiver Procedure) for installation of FlexSteel to rehabilitate the pipeline segment described herein is **GRANTED**, subject to the below special conditions.

SPECIAL CONDITIONS

1. FlexSteel must only be used to transport the HVL over the proposed 9.2-mile distance between the ExxonMobil Olefins Plant and the proposed Cut Point 10 (see Vicinity Map, attached to this Order as Attachment 1) west of the San Jacinto River. The FlexSteel pipe to be used in this project is 8 inches in diameter with a manufacture pressure rating of 1,500 psig. The pipeline maximum operating pressure ("MOP") of the section of pipe covered by this waiver must not exceed 1,200 psig.
2. All processes and procedures relating to the installation of the FlexSteel pipe must be monitored by Ocelot. Commission Pipeline Safety personnel shall be on site during the installation of the segment.
3. Ocelot is required to report any leaks or problems associated with the operation of this pipeline to the Commission's emergency line within one hour of discovery. Should any unforeseen problems occur, the Commission may require the removal and/or replacement of the approved composite pipe.
4. Ocelot is required to prepare a process and procedure to use the real time monitoring capability of the annulus free space between the liner and outer jacket HDPE materials via SCADA from Ocelot's control room in accordance with 49 CFR §195.446. The process and procedures will require documentation of what gasses are identified, what specific quantitative values would initiate further inspection measures, what inspection

measures would consist of, and what actions would be required. Ocelot shall submit records confirming the installation and operations of the system to the Commission.

5. Once installation is completed, Ocelot must hydrostatically pressure test the pipeline to minimum of 150% times the maximum operating pressure.
6. Ocelot will apply their existing corrosion control plans and procedures, consistent with 49 CFR Part 195, to the Purity #7 pipeline, both carbon steel and FlexSteel, which are covered under this waiver.
7. Construction personnel involved in the installation, connections, flange installation, and inspection of the FlexSteel pipe must be FlexSteel trained and certified technicians through FlexSteel's Installation Technician Training Program prior to conducting field operations. Ocelot and/or FlexSteel must supply all appropriate training documents related to the installation, connections, flanges, and inspections that must be conducted during the insertion operation and subsequent maintenance operations pertaining to this waiver, prior to the operation of the segment.
8. Ocelot shall provide documentation that FlexSteel certified installation/manufacturing personnel and/or a certified Quality Assurance/Quality Control inspector were on site during all phases of the operation, including installation and testing within seven (7) days of installation.
9. Ocelot must provide construction reports of any issues that arise during installation that might have compromised the integrity of the pipe and how those issues were mitigated to the Commission upon discovery.
10. Future repairs, if necessary, must be completed by FlexSteel trained and certified technicians through FlexSteel's Installation Technician Training Program.
11. During the pulling of the FlexSteel pipe, maximum spooling tensions and installation tensions for the pipe must be recorded and shall not exceed manufacturers' specifications.
12. An excess pull of at least 50 feet must be inspected by FlexSteel certified technicians for damage during the pulling of the pipe. If any damage or deformities to the pipe are present, additional pull-through at increments of 50 feet will be required until damage or deformities are no longer observed.
13. Records verifying factory testing of the pipeline must be submitted by Ocelot to the Commission prior to any installation. Installations are subject to the Commission's review and approval of test records and any other relevant information.
14. The pipeline, including both the FlexSteel and carbon steel pipeline through which it is to be inserted, must be operated and maintained in accordance with applicable sections of 49 CFR Part 195, Texas Administrative Code Chapter 8, and associated State regulations. A detailed operator qualification ("OQ") procedure, including covered tasks (49 CFR § 195.501(b) (Scope)), must be provided to the Commission for review and approval prior to installation. All individuals performing covered tasks must be properly OQ certified.

15. Ocelot must follow its existing Operations and Maintenance procedures, modifying it as needed for the section of pipe subject to this waiver to detect and manage leaks. A plan, subject to the approval by the Commission, requiring inspection of the pipe at appropriate intervals to ensure no adverse effects have occurred during the operational life of the pipe must be included.
16. After the FlexSteel is placed in service, Ocelot shall conduct patrolling and leakage surveys daily for the first week of operations, perform leak surveys at 3, 6, and 12 months, and then following intervals consistent with 49 CFR Part 195 thereafter.
17. Ocelot must notify the Commission of any deviations from this waiver within five (5) working days after a discovery of the deviation, and the continued operation of the segment covered by this waiver will be subject to further approval by the Commission.
18. If Ocelot fails to comply with any conditions of this waiver, or if the Commission determines that this waiver is no longer appropriate or is inconsistent with pipeline safety, the Commission may revoke the waiver without advanced notice and require Ocelot to comply with all appropriate regulatory requirements.
19. If the Commission finds this pipeline's integrity is deficient, poses a risk to the public or the environment, or if any failure occurs, Ocelot must inform the Commission immediately and employ the necessary mitigative measures to ensure safety, which may include replacement of the FlexSteel pipe with materials approved in 49 CFR Part 195. If the Commission finds the mitigative measures are insufficient to ensure safety, the Commission may revoke this waiver without notice.
20. Records verifying factory testing of the pipeline shall be submitted to the Commission prior to any installation.

Material and Testing Requirements

21. The FlexSteel pipeline pipe and connection fittings to be installed and operated must have a rating of 2,250 psig, ANSI 900, and a minimum temperature rating of 185°F. The pressure rating for the FlexSteel pipeline must be determined in accordance with API 15S, Second Edition.
 - a. Materials used in the manufacture of the FlexSteel pipe installed during initial construction or in future repairs or replacement may not contain any grind or rework material.
 - b. Ocelot must comply with API 15S, Second Edition, requirements for outdoor storage and ultraviolet radiation exposure of polyethylene ("PE") pipe for all FlexSteel pipe materials.
 - c. Ocelot must document compliance with API 15S, Second Edition, in its Material Specifications and O&M Procedures.
 - d. Ocelot must obtain mechanical and chemical properties test reports that certify the steel by heat used in manufacturing the FlexSteel pipe.
 - e. All FlexSteel pipe used must be factory pressure tested to a minimum of 1.3 times MOP for a minimum of one (1) hour. Ocelot must make available

pressure test records demonstrating that all waiver segment pipe was factory pressure tested. Such records must be traceable to all line pipe, repair pipe or replacement pipe used within the waiver segment and must include pressure test reports, pressure testing parameters (pressure, time, procedure and/or standard number, date, etc., and test acceptance parameters), and pressure testing recorders with current calibration records for pressure test recording equipment. Ocelot must provide a certification from the pipe manufacturer that the tests were completed and that all pipe was visually checked during the pressure tests for leaks.

22. Ocelot must develop procedures for monitoring the FlexSteel pipeline for softening and strength (circumferential and longitudinal) degradation and corrosion compared to the original pipe and compared to pipe under operating pressures and temperatures. The testing and evaluation procedure must be developed by Ocelot and submitted to the Commission for review and a "no objection" determination prior to use.
 - a. In designing the pipeline, Ocelot must consider and plan for pipeline risk factors, including, but not limited to: pressure and temperature cycling; performance of multilayer composite pipe in elevated operational temperatures and repairs under a range of ambient conditions; long term performance of composite material and mechanical fittings; cathodic protection of metallic appurtenances; long term performance of pipe; risk migration through damage of the inner pipe wall; and methods for assessment of buried or excavated pipe.
 - b. Ocelot must schedule and perform inspections using non-destructive and destructive testing on the pipe material after installation (see Condition 22(c) below). Non-destructive testing must focus on the composition and degradation of the pipe material and destructive testing must include a hydrotest to burst pressure. Tests must be conducted after 12 months, not to exceed 15 months, after initial operations begin and on a 24-month basis not to exceed 30 months thereafter. Ocelot must perform these inspections and tests at one, three, five, seven, nine, and 11-year intervals after installation. Ocelot and the Commission may review the results of these tests after the tests are completed to determine if future tests are required. Ocelot must receive a "no objection" from the Commission to discontinue the tests. The Commission must get a "no objection" from PHMSA to discontinue the tests.
 - c. A section of pipe no less than 200 feet must be installed in such a way that simulates the condition of the pipeline segment (i.e., cased) in the immediate vicinity of the location with maximum operating pressures, temperatures, and any pressure cycling. This pipe segment must have a minimum of 20 feet removed during the intervals defined in Condition 22(b) to be evaluated, including destructive testing. The results of the tests must be made available to the Commission.
 - i. Each removed FlexSteel pipeline segment must be disassembled and visually inspected for any indications of corrosion.
 - ii. FlexSteel's internal and external HDPE layers must be destructively tested per ASTM D638-03 (Standard Test Method for Tensile Properties of Plastics) 2003 Edition for yield strength, ultimate strength, and elongation. These properties must be evaluated based on the requirements of ASTM D2513-12ae1 (Standard Specification for

Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings) April 1, 2012 edition, Section 5.12.2.1 (Elongation) Table 1, and ASTM D3550-12e1 (Standard Specification for Polyethylene Plastics Pipe and Fittings Materials) April 1, 2012 Edition, Table 1 (Yield Strength).

- iii. Flex Steel's inner core must be destructively tested per ASTM A370 for yield strength, ultimate strength and elongation and per ASTM A751 for chemical composition. These results must be evaluated based on the requirements of ASTM A109-16 (Standard Specification for Steel, Strip, Carbon (0.25 Maximum Percent), Cold Rolled) 2016 Edition, Table 2 (Chemical Properties). The results of the mechanical properties testing shall be per the manufacturer's requirement for as-received steel strip materials.
 - iv. A section of FlexSteel pipe must be burst tested per the requirements of API 15S, Second Edition, Section 5.2.3.5.
 - d. Ocelot must perform the removal, replacement, and installation of pipe and fittings, and other actions related to the removal of test segments, in accordance with the requirements of this waiver.
 - e. Ocelot must report the results of the inspections and tests to the Commission within 60 days of completion of testing.
23. Three (3) samples must be obtained from the FlexSteel pipe inventory to be used in the actual construction project and must be selected from locations equally spaced over the length of the project. For each sample, the following testing must be performed:
- a. Conduct burst testing at ambient temperature per the requirements of API 15S, Second Edition, Section 5.2.3.5.
 - b. The inner steel core must be destructively tested per ASTM A370 for yield strength, ultimate strength and elongation. The results of the mechanical properties testing must be compared to the manufacturer's requirements for as-received steel strip materials.
 - c. The inner steel core chemical composition must be tested per ASTM A751. The results of the chemical composition must be compared to the incoming manufacturer material specifications.
 - d. The HDPE material must be tested for chemical composition and compared to the incoming manufacturer material specifications.
24. One (1) sample obtained from FlexSteel pipe inventory, to be used in the actual construction project, must be subjected to elevated temperature testing per the requirements of API 15S, Second Edition, Section 5.4.3.2.

Pipe Rating and Safety Factor

25. The pipe rating and safety factor must be reconfirmed based upon the results in Condition 23 and the post operational 12-month burst test as outlined in Condition 22(c)(iv).

IT IS FURTHER ORDERED that all requested findings of fact and conclusions of law, which are not expressly adopted herein, are **DENIED**.

IT IS FURTHER ORDERED that all pending motions and requests for relief not previously granted or granted herein are **DENIED**.

IT IS FURTHER ORDERED that upon the passage of sixty (60) days from the date this Order is signed and no objection from the United States Secretary of Transportation having been received—as provided for in 49 U.S.C. § 60118—this Order shall become final and effective.

SIGNED on March 4, 2020.

RAILROAD COMMISSION OF TEXAS



WAYNE CHRISTIAN
CHAIRMAN




CHRISTI CRADDICK
COMMISSIONER



RYAN SITTON
COMMISSIONER

ATTEST:

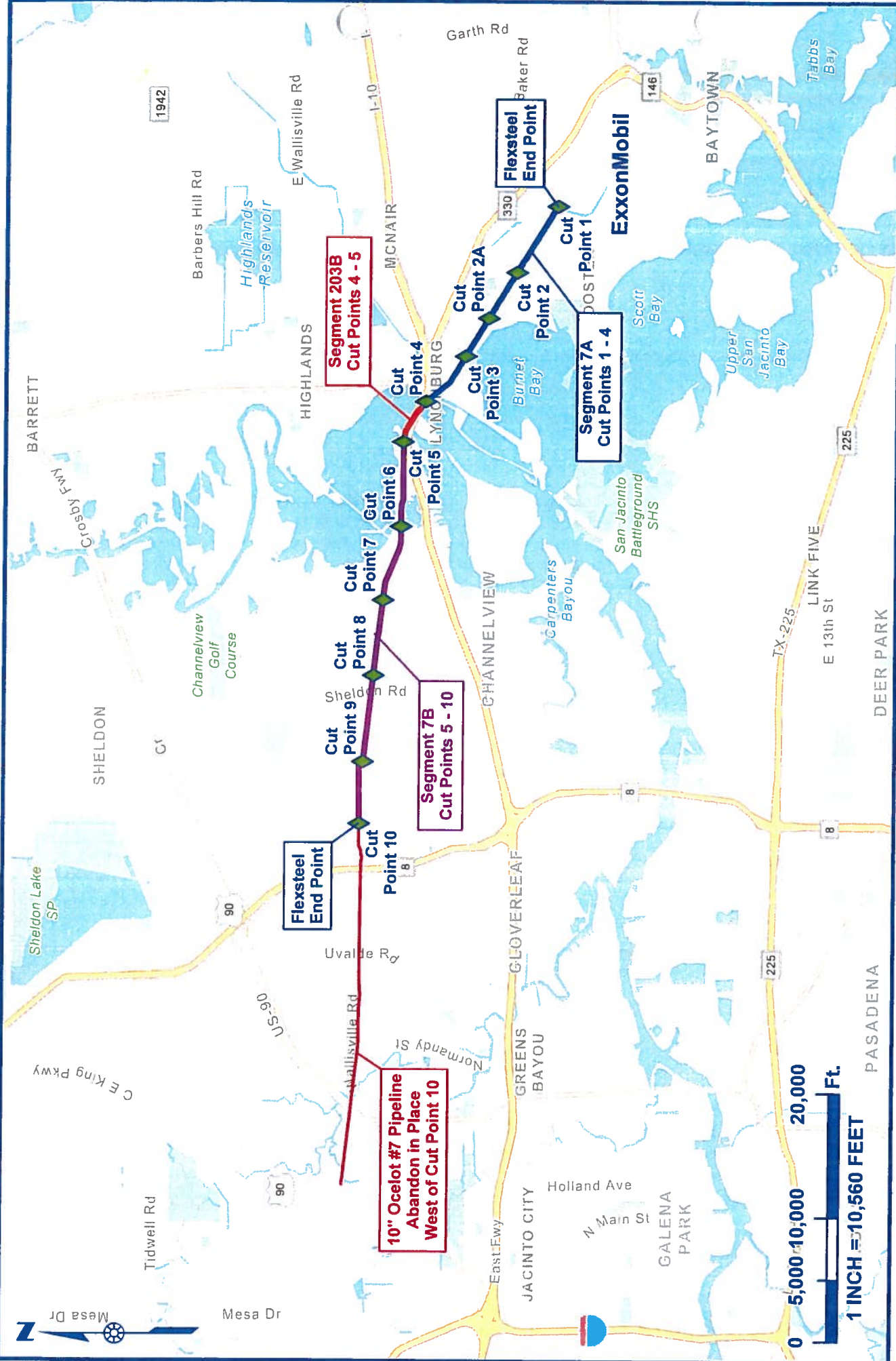


SECRETARY

Final Order

Attachment 1

Vicinity Map



VICINITY MAP
OCELOT PURITY #7 FLEXSTEEL REHABILITATION
HARRIS COUNTY, TX AREA

