

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**Safety and Enforcement Division  
Gas Safety and Reliability Branch**

**Resolution GSRB-2  
January 30, 2025**

**RESOLUTION**

**RESOLUTION GSRB-2: ROCKPOINT LODI GAS STORAGE, LLC  
REQUEST FOR WAIVER TO USE FLEXSTEEL PIPE FOR  
REMEDICATION OF 0.78-MILE OF NATURAL GAS PIPELINE**

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**PROPOSED OUTCOME:** Grants Rockpoint Lodi Gas Storage, LLC’s request for a waiver of 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.61 to use FlexSteel pipes to remediate an inter-facility natural gas pipeline that extends 0.78 miles in San Joaquin County. The waiver grant is subject to the additional operations and maintenance conditions specified by the Gas Safety and Reliability Branch.

**SAFETY CONSIDERATIONS:** Will ensure that Rockpoint Lodi Gas Storage, LLC maintains and operates the 0.78 mile inter-facility natural gas pipeline in a manner that is not inconsistent with gas pipeline safety requirements.

**ESTIMATED COST:** No significant cost.

**SUMMARY**

In this Resolution, the California Public Utilities Commission (Commission) grants Rockpoint Lodi Gas Storage, LLC’s (Rockpoint) request for a waiver of 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.61<sup>1</sup> for one intrastate natural gas transmission pipeline segment connecting Rockpoint’s facilities that extends approximately 0.78 miles in San Joaquin County. The waiver allows Rockpoint to use FlexSteel pipes to remediate its 12-inch Site 6 Pipeline in its Lodi Gas Storage facility. This Resolution also imposes a number of conditions that Rockpoint must meet on an ongoing basis in order for the waiver to continue to be valid.

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<sup>1</sup> Title 49 CFR §§ 190 through 199 are incorporated by reference in General Order 112-F.

## **BACKGROUND**

On December 7, 2023, Rockpoint submitted a request to the Commission’s Safety and Enforcement Division (SED) Gas Safety and Reliability Branch (GSRB) seeking a waiver of 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.619 for its Site 6 Pipeline, an inter-facility natural gas pipeline that extends approximately 0.78 miles and remains within San Joaquin County, California. These specific sections of Part 192 include the requirements on pipe materials and design, pipeline components design, pipeline corrosion control, and pipeline operation. However, these regulations do not address the use of flexible steel pipe such as FlexSteel. Therefore, Rockpoint is seeking relief from these requirements for its proposed pipeline installation using FlexSteel for its Site 6 Pipeline.

## **DISCUSSION**

General Order (GO) 112-F is the “State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems.”<sup>2</sup> The rules build upon the Federal Pipeline Safety Regulations, specifically, 49 CFR Parts 191, 192, 193, and 199.<sup>3</sup> Section 101.3 of GO 112-F allows for a utility, in special circumstances, to submit an application to waive compliance with specific rules in accordance with Section 3(e) of the Natural Gas Pipeline Safety Act of 1968.

In its request, Rockpoint is proposing to insert FlexSteel’s 6-inch pipes into its 12-inch coated steel pipe. FlexSteel pipe contains a high-density polyethylene (HDPE) inner and outer layer with a helically wound flexible steel core reinforcement. Rockpoint stated that FlexSteel pipe is highly corrosion-resistant and was approved by Pipeline and Hazardous Materials Safety Administration (PHMSA) to retrofit certain oil and gas pipelines through a trenchless installation.

In support of its waiver request, Rockpoint identified the following benefits to affected public stakeholders in the vicinity of the pipeline because the FlexSteel line will (1) be immune to internal and external corrosion and (2) be more resistant to third-party damage. Additionally, Rockpoint notes that installing the FlexSteel pipe would minimize the environmental impact, time, and disturbance that would otherwise be required for a typical steel pipe replacement project.

Based on review of Rockpoint’s request and information on FlexSteel pipe, GSRB staff agree with Rockpoint that there are benefits to installing FlexSteel pipe in lieu of

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<sup>2</sup> GO 112-F, Section 101.1.

<sup>3</sup> GO 112-F, Section 101.2.

replacing the existing 12-inch steel pipeline. Because FlexSteel pipe contains a high-density polyethylene (HDPE) inner and outer layer, the risk of internal and external corrosion is mitigated. The existing 12-inch steel pipe acting as a casing for the 6-inch FlexSteel pipe could also provide an extra layer of protection against damage from third-party excavation. Lastly, the insertion of the FlexSteel pipe instead of open trench pipe replacement could reduce the amount of excavation required; therefore, the adverse impacts to the environment and to people located near the pipeline could be minimized.

Based on these considerations, GSRB determined that granting Rockpoint's request to waive 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.619 for installing FlexSteel pipe to remediate the 0.78-mile inter-facility natural gas transmission pipeline segment in its Lodi Gas Storage facility is not inconsistent with gas pipeline safety if additional operations and maintenance conditions are implemented by Rockpoint, as specified in "Detail State Waiver Conditions".<sup>4</sup>

In granting this waiver, Rockpoint is reminded that:

1. The waiver only applies to the 0.78 miles of inter-facility gas transmission pipeline segment identified in Rockpoint's request and does not extend to any other pipe segments or other facilities.
2. This waiver is effective upon approval by the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), or if there is no action by PHMSA, 60 days after the receipt of waiver from State Agency.
3. Rockpoint must implement additional operations and maintenance conditions recommended by GSRB on the inter-facility gas transmission pipeline segment identified in Rockpoint's request. These conditions, specified in the "Detailed State Waiver Conditions" and included as Attachment 1 to this Resolution, are intended to decrease the likelihood of a release of gas. These additional preventative measures would help prevent leaks and ruptures, demonstrating that the State Waiver is not inconsistent with pipeline safety.

SED and the Commission retain discretion to rescind the right to delay inspection or other required activity. Further, SED or the Commission may cancel or modify the permission given in this Resolution at any time.

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<sup>4</sup> See Attachment 1 to this Resolution.

**COMMENTS ON DRAFT RESOLUTION**

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed for comments, and will be placed on the Commission's agenda no earlier than 30 days from today. No comments were received.

**FINDINGS AND CONCLUSIONS**

1. On December 7, 2023, Rockpoint submitted a request to the Commission's Safety and Enforcement Division (SED) Gas Safety and Reliability Branch (GSRB) seeking a waiver of 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.619 for its Site 6 Pipeline, an inter-facility natural gas pipeline that extends approximately 0.78 miles and remains within San Joaquin County.
2. General Order 112-F, Part 101.3 allows for a utility, in special circumstances, to submit an application to waive compliance with specific rules in accordance with Section 3(e) of the Natural Gas Pipeline Safety Act of 1968.
3. Rockpoint's request to waive 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.619 for installing FlexSteel pipe to remediate the 0.78-mile inter-facility natural gas transmission pipeline segment in its Lodi Gas Storage facility is not inconsistent with gas pipeline safety if additional operations and maintenance conditions are implemented by Rockpoint, as specified in "Detail State Waiver Conditions".
4. SED notified PHMSA of its intent to approve Rockpoint's requested waiver.

**THEREFORE, IT IS ORDERED that:**

1. Rockpoint Lodi Gas Storage, LLC's request for a waiver of 49 Code of Federal Regulations (CFR) §§ 192.53, 192.55, 192.105, 192.107, 192.109, 192.111, 192.113, 192.144, 192.149, 192.150, 192.463, and 192.619 for its Site 6 Pipeline, an inter-facility natural gas pipeline that extends approximately 0.78 miles and remains within San Joaquin County is granted.

2. The waiver granted herein does not extend to activities or facilities not set forth in this Resolution.
3. Rockpoint Lodi Gas Storage, LLC shall implement the additional operations and maintenance conditions specified in Attachment 1, "Detail State Waiver Conditions".
4. The Commission or the Safety and Enforcement Division may rescind, cancel or modify the permission given in this Resolution at any time.
5. This Resolution shall be submitted to The Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) for the required 60 days' notice in accordance with Section 3.3.2 of the PHMSA State Program Guidelines.
6. This waiver is effective upon approval by The Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), or if there is no action by PHMSA, 60 days after the receipt of waiver from the Commission.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on January 30, 2025 the following Commissioners voting favorably thereon:

/s/ RACHEL PETERSON

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Rachel Peterson  
Executive Director

ALICE REYNOLDS  
President  
DARCIE L. HOUCK  
JOHN REYNOLDS  
KAREN DOUGLAS  
MATTHEW BAKER  
Commissioners

# Attachment 1 - State Waiver Conditions

## GSRB Proposed State Waiver Conditions:

1. Rockpoint must design, operate, and maintain the pipeline in accordance with the following:
  - a. For purposes of the State Waiver, the "State Waiver segment," or the "Project," is defined as the FlexSteel pipe, fittings, monitoring devices, and related facilities to be installed within the 0.78-mile section of Rockpoint's Site 6 Pipeline. Other "new construction" will consist of those installations outside of the 0.78 miles of the State Waiver segment and is not included in this State Waiver.
  - b. Rockpoint must not operate the State Waiver segment at a pressure exceeding an MAOP of 1,620 psig and 1,800 psig for any Class 1 and Class 2 locations, respectively. Rockpoint must not operate the State Waiver segment exceeding a maximum operating temperature of 150 degrees Fahrenheit.
  - c. Rockpoint must operate the State Waiver segment at or below a design factor of 0.72 of the product's 2,250 psig manufacturer operating pressure rating, which is equaled to 1,620 psig, for any Class 1 locations within the State Waiver segment. The pipeline must operate at or below a design factor of 0.6 of the product's 3,000 psig manufacturer operating pressure rating, which is equaled to 1,800 psig, for any Class 2 locations within the State Waiver segment.
    - i. Due to the nature of the installation method, all road crossings must be cased with steel pipe. Any future road crossings using FlexSteel pipe must have a minimum of 36-inches cover and must be cased or 49 CFR Part 192 compliant steel pipe must be installed.
    - ii. Due to the composite design of FlexSteel pipe, Barlow's formula in 49 CFR 192.105 cannot be used to determine the pressure rating of this material. Per API 15S, Third Edition, Section 5.3.1.6, the maximum pressure rating for a product is equal to the product's calculated minimum burst pressure multiplied by a maximum design factor of 0.5. In this case, the 6-inch diameter FlexSteel pipe in Class 1 location has a minimum burst pressure of 4,500 psig, which results in a maximum pressure rating of 2,250 psig.<sup>1</sup> The 6-inch diameter FlexSteel pipe in

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<sup>1</sup> The proposed 6-inch diameter FlexSteel pipe in class 1 location will be 5.60-inch inside diameter and 7.2-inch outside diameter with a rating of 2,250 psig, empty weight of 17.8 pounds per foot, maximum pipe operating temperature of 150 degrees Fahrenheit (°F), and maximum installation tension of 30,000 pounds.

Class 2 location has a minimum burst pressure of 6,000 psig, which results in a maximum pressure rating of 3,000 psig.<sup>2</sup>

- d. Rockpoint must conduct quarterly patrols and instrumented leakage surveys at a maximum of 4-½ months, but at least four (4) times each calendar year in accordance with the requirements in 49 CFR 192.705, 192.706, and 192.935(d)(3) on the State Waiver segment.
- e. Rockpoint must notify CPUC of class location changes and the establishment of a new high consequence area (HCA) or moderate consequence areas (MCA) affecting the State Waiver segment.
  - i. This State Waiver is not applicable for Class 3 and 4 locations, HCAs or for a Class 2 to 3 class location increase as described in 49 CFR 192.611.
  - ii. The State Waiver conditions must be reviewed for Class location modifications (49 CFR 192.609) to ensure Code compliance and safety are maintained. If a new building intended for human occupancy is identified within 237 feet (1.5 times the 6-inch FlexSteel pipe PIR of 158 feet) of the State Waiver segment and that building causes a class location increase, Rockpoint will be required to remove and replace that portion of pipe with 49 CFR Part 192-compliant steel line pipe or with FlexSteel pipe applicable to the class location as described in this section (1)(c) of this State Waiver.
- f. Rockpoint must treat the State Waiver segment as if the entire segment is a covered segment in an HCA and must develop and follow an integrity management program in accordance with the requirements of 49 CFR Part 192, Subpart O (except as waived or modified herein) applicable to plastic transmission pipelines including the following sections: 49 CFR 192.901, 192.917(b) through (e), 192.921(a)(2) or (a)(4), 192.935, 192.937(c)(2) or (c)(4), and 192.939(b). This includes, but is not limited to, risk assessments, regular patrolling, participation in the national one-call system, installation of remote controlled valves, and a pressure test re-assessment every seven (7) years, not to exceed 90 months, at a minimum pressure of 1.5 times MAOP for 24 continuous hours.

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<sup>2</sup> The proposed 6-inch diameter FlexSteel pipe in class 2 location will be 5.60-inch inside diameter and 7.3-inch outside diameter with a rating of 3,000 psig, empty weight of 22.3 pounds per foot, maximum pipe operating temperature of 150 degrees Fahrenheit (°F), and maximum installation tension of 45,000 pounds.





Rockpoint must provide a certification from the pipe manufacturer that the tests were completed and that all pipes were visually checked during the pressure tests for leaks. Rockpoint must make available all pressure test records to CPUC and PHMSA prior to operation of the State Waiver segment upon request.

- e. Testing of Steel: Two (2) pipe samples per unique steel heat used in the construction of FlexSteel pipe's inner steel core placed into service must be obtained from the FlexSteel pipe inventory to be used in the actual construction project. For each sample, the following testing must be performed
  - i. Conduct burst testing at ambient temperature per the requirements of American Petroleum Institute statute, API 15S, Third Edition, Section 5.3.1.5;
  - ii. The inner steel core must be destructively tested per American Society for Testing and Materials (ASTM), 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; and
  - iii. The inner core chemical composition must be tested per ASTM A751. The results of the chemical composition must be compared to the manufacturer's material specifications.
  - iv. The high-density polyethylene (HDPE) material must be tested for chemical composition and compared to the manufacturer's material specifications.
- f. Elevated Temperature Testing: 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, Third Edition, Section 5.3.5.2.
- g. Long-Term Integrity: In designing the pipeline, Rockpoint must consider and plan for all pipeline integrity risk factors, including, but not limited to: Pressure and temperature cycling; performance of multilayer composite pipe in subzero temperatures, and repairs under a range of ambient conditions; long term performance of composite material and mechanical fittings; cathodic protection of metallic appurtenances; coating performance; long term performance of pipe; risk migration through damage to the inner or outer pipe wall; and methods for assessment of buried or excavated pipe.
  - i. Rockpoint must schedule and perform five (5) inspections during which non-destructive and destructive testing must be performed on the pipe material after installation. Nondestructive testing must focus on the composition and

degradation of the pipe material and destructive testing must include a hydrotest to burst pressure. Rockpoint must perform these inspections and tests at a maximum of 1, 2.5, 5, 7.5 and 10 year intervals (not to exceed this timing by 90-days) after installation.

- ii. A section of pipe no less than 50 feet must be installed in such a way that simulates the condition of the State Waiver segment in the immediate vicinity of the operating pipeline. This FlexSteel pipe segment must have at least 5 feet removed during the intervals defined in Condition 3(g)(i) above to be evaluated, including destructive testing. The test results must be sent to CPUC.
  1. Each removed segment must be disassembled, visually, and non-destructively inspected, as appropriate, for any indications of corrosion;
  2. 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).
  3. FlexSteel's inner core must be destructively tested per ASTM A370-18 December 1, 2018 edition for yield strength, ultimate strength and elongation and per ASTM A751-14a October 1, 2014 edition 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 must be per the manufacturer's requirement for as-received steel strip materials. These mechanical property values must exceed the values listed in ASTM A109-16. Acceptance criteria are available for review upon request, but for trade secret reasons, it is requested that the criteria not be listed in the docket folder.

4. A section of FlexSteel pipe must be burst tested per the requirements of API 15S, Third Edition 5.3.1.5.
  - iii. Perform 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 State Waiver.
  - iv. Rockpoint must report the results of the inspections and tests to CPUC within 60 days of completion of testing.
  - v. Rockpoint must use the results of the destructive and non-destructive testing to determine the long-term integrity of the pipeline. Any results from the analysis of these tests that require corrective action(s) shall be applied to the State Waiver segment.
4. Construction Operator Qualifications
- a. If the performance of a construction task associated with construction or repair of the State Waiver segment could affect the integrity of the segment, Rockpoint must treat that task as a “covered task” notwithstanding the definition in 49 CFR 192.801(b), and must implement the requirements of 49 CFR Part 192, Subpart N. Rockpoint’s construction operator qualification (COQ) procedures, training program, and qualification tests must include detailed information on all construction-related tasks as a covered task.
  - b. Rockpoint must develop and implement a COQ plan that specifically relates to construction activities for the State Waiver segment. The purpose of the plan must be to ensure construction personnel and operations personnel are trained. The COQ plan must be followed throughout the construction phase with respect to the following: Pipe inspection, hauling and stringing, appurtenance inspection, field jointing methods, installation of appurtenances, pull through of the pipeline, padding and backfilling as required, hydrostatic testing, pipe repairs made from hydrostatic testing, dewatering and purging, and inspection of work (i.e. trenching, excavating, etc.). These tasks can affect the integrity of the State Waiver segment and must be treated as “covered tasks.” The individuals driving the pipe trucks to the pipeline right-of-way will not need to be COQ qualified, unless they are responsible for the pipe unloading.
  - c. Rockpoint must also treat in the following State Waiver segment tasks as covered COQ “covered tasks”, such tasks include: Right-of-way soil stability determination, surveying, locating foreign lines, locating pipeline for one call notifications, ditching or excavation,

cathodic protection (CP) system surveys, mitigation, and installation, anomaly evaluations and repairs, right of way clean up (including installation of line markers), supervisory control and data acquisition (SCADA) control point installation and verification, gas quality monitoring, and quality assurance monitoring.

- d. Rockpoint must have FlexSteel personnel on-site when initial pipeline installation (unrolling and insertion activities) is conducted.
  - i. Rockpoint must have FlexSteel certified joining personnel onsite installing all FlexSteel couplings.
- e. Rockpoint must develop and make available its COQ plan to CPUC prior to beginning construction.

#### 5. Excavation, Pipe Cover, and Damage Prevention

- a. Pipe - Inspection for Damage:
  - i. Rockpoint must develop and implement an inspection training and qualification plan and must send the plan to CPUC prior to the start of construction. This plan must define the requirements and training necessary to inspect and evaluate damage to FlexSteel pipe and fittings. In addition, Rockpoint must have FlexSteel employees on site during any insertion activities not only to advise on any construction related activities but to assist in inspection, evaluation, and repair of any damage indications, should they be encountered.
  - ii. Rockpoint must inspect the pipeline during offloading at the storage yard, offloading on location, during uncoiling, placement into the ditch, backfill, right-of-way grading, and clean up.
  - iii. Rockpoint must certify and document all inspections with date, time, pipeline station, and pipe spool number.
  - iv. Rockpoint must inspect the leading 25 feet of pull-through pipe for damage, replacing damaged pipe. All indications of pipe damage must be evaluated and replaced or repaired as follows:
    - 1. Option 1 - Minimal Damage to the Pipe Shield: Gouges or scrapes that exceed 0.1181 inches or 3 millimeters (mm) in depth must be repaired in accordance with Option 2 or 3 below or replaced with new pipe.
    - 2. Option 2 - Moderate Damage to the Pipe Shield with No Steel Strip Exposed: Gouges more than the depth specifications listed above must be

repaired with either a pipe clamp or a pipe repair system consisting of polyethylene/butyl rubber pipeline tape, heat-activated wrap, or replaced with new pipe. Prior to applying the clamp or wrap, gouges must be smoothed and blended with an appropriate grit sand paper or equivalent material. For this repair option to be used the pipe must contain: No visible evidence of exposed steel layers, outer sheath damage must be less than six (6) square inches, and the outer sheath damage cannot be more than halfway around the pipe.

3. Option 3 - Extensive Damage to the Pipe Shield: When the steel layer has become exposed or the degree of outer sheath damage exceeds the parameters specified in Option 2 above, the damaged section of the pipe must be cut out and a midline connection installed.
  - v. During the pre-installation, Rockpoint must develop procedures for internally cleaning the existing 12.75-inch outside diameter pipe (future casing pipe) to remove liquids and debris and to inspect the casing pipe for any hazards that could damage the FlexSteel pipe during the casing pull through.
  - vi. Prior to insertion, each insertion section of the State Waiver segment must be pigged with a cleaning pig to verify the cleanness of the section. If any liquids are found as a result of this cleaning pig run, additional cleaning pig runs must be performed until no visible liquids are found.
  - vii. During the insertion process, the tensile force on the FlexSteel pipe shall be monitored by use of a calibrated dynamometer, calibrated within six (6) months of use. This tensile force shall be limited to 80% of FlexSteel's rating.
- b. Rockpoint must develop and implement O&M Procedures and/or Construction Specifications to remove and replace any FlexSteel pipe with the following conditions:
  - i. Cuts, scrapes, abrasions, or gouges that at any place exceeds the criteria for wall damage defined in Condition 5(a).
    1. Discolorations of the outer HDPE layer that may indicate material degradation or lack of homogeneity;
    2. All FlexSteel pipe must be newly produced after the grant of this State Waiver and not obtained from inventory. The outside HDPE layer is PE

4710 with 2% carbon black content, which has a 50 year UV resistance per ASTM D3350.

3. Any section of FlexSteel pipe that appears to contain cracking or crazing (may require laboratory testing to determine any widespread materials issue with the pipe); and in the event, that crazing is identified, crazing less than 0.07874-inches (2 mm) in depth will have no adverse effects on the pipe. Any damage exceeding 0.07874-inches (2 mm) in depth will require a more detailed assessment to determine the appropriate mitigative measures, up to and including replacement.
  4. Rockpoint must not install any FlexSteel pipe above grade (ground).
- c. Other possible signs of material damage or unsoundness must be reviewed by qualified personnel, and if the integrity of the FlexSteel pipe is negatively affected, Rockpoint must remove and replace such pipe.
- i. Rockpoint must document its repair and replacement procedures and standards within the comprehensive written specifications or standards required under 49 CFR 192.303 and the O&M Procedures required in 49 CFR 192.605.
  - ii. Rockpoint must develop O&M Procedures based upon safe operating conditions, but must hand dig for initial location of the State Waiver segment pipeline and associated monitoring devices' communication lines. Rockpoint must hand or shovel dig whenever excavation operations are within two (2) feet of the pipeline and associated monitoring devices' communication lines.
  - iii. Rockpoint must prepare and follow a damage prevention program in accordance with 49 CFR 192.614. Rockpoint must make this program part of its O&M Procedures prior to placing the State Waiver segment in natural gas service.
- d. Rockpoint must ensure that the State Waiver segment will comply with the requirements in 49 CFR Part 192, except as waived or modified herein.
6. Corrosion Control
- a. Rockpoint must apply cathodic protection (CP) on all buried FlexSteel pipe components, and joints within the State Waiver segment in accordance with 49 CFR Part 192 (except as waived or modified herein). Electrical conductivity of swaged joints to inner pipe layer must be tested.
    - i. These fittings are electrically conductive with the FlexSteel pipe inner steel core.

- b. Rockpoint must perform external corrosion control monitoring on each buried metallic fitting in accordance with 49 CFR 192.465. Rockpoint must perform CP monitoring at least once each calendar year, not exceeding 15 months. Corrosion control monitoring of the buried metallic fittings by a sampling basis is not permitted.
- c. Rockpoint must determine the native structure-to-electrolyte potential for each buried metallic fitting prior to energizing the CP system.
- d. Rockpoint must seal the 12.75-inch casing ends to prevent water and other debris from entering the casing annulus.
- e. Rockpoint must ensure that no 12.75-inch casing end, where natural gas can leak or migrate to the soil surface, is within the 6-inch FlexSteel pipe PIR (minimum of 158 feet) of a human residence for the life of the State Waiver.
- f. Rockpoint must develop and implement Construction and O&M Procedures to identify non-isolation areas and maintain electrical isolation of the FlexSteel pipe inner steel core from contact with the steel casing pipe and from water entering the inner steel core.

#### 7. Pressure and Temperature Control and Monitoring

- a. Rockpoint must install an annulus monitoring system (Condition 7(d) below) that will provide continuous integrity monitoring of the external HDPE layer. If a holiday is present on the external layer, this system will detect this defect.
- b. Over-pressure Protection: Rockpoint must install over-pressure protection equipment necessary to keep the pipeline pressure from exceeding its MAOP plus allowable build-up at any time. Allowable build ups are those conditions which occur due to anomalous conditions outside of the State Waiver segment. Occurrences resulting in pressures exceeding its MAOP plus allowable build-up plus 4% of MAOP, must be reported to CPUC within 24 hours or the next business day of the occurrence for their review.
- c. Pressure Monitoring: Rockpoint must monitor operating pressures by the installation of pressure transmitters and switches in the piping system that report to the facility's SCADA system. Rockpoint must monitor the State Waiver segment with continuous and redundant pressure transmitters and switches. Rockpoint must provide a means to inform operator personnel performing work on the pipeline of the pressure on the line.
- d. Annulus Monitoring: Rockpoint must install an annulus monitoring system that will provide continuous integrity monitoring of the external HDPE layer. If a holiday is present on the external layer, this system will detect this defect.

- i. Rockpoint must continuously monitor through SCADA the pressure of the annulus space between the FlexSteel pipe HDPE layers along the “entire State Waiver segment.”
- ii. The annulus between inside liner and outer jacket HDPE materials is used to monitor pipe integrity. This annulus is a pressure containing capable structure that is designed to contain pressure up to 30 psig. 1/8-inch female (national pipe thread) NPT outlets on the end fittings will be outfitted with the necessary tubing to attach pressure transmitters that must be incorporated into SCADA monitoring. With permeated gasses permitted to build to a predetermined level (15 to 20 psig), transmitters will be configured to alarm on indications of high or low pressure outside of the established acceptable range. Continuous pressure readings within acceptable ranges provide real time indication that several key integrity features are functioning as designed. Positive pressure indicates the outer jacket material is intact (holiday free), demonstrating a “perfect coating”, thus external corrosion cannot occur. It indicates that the HDPE liner material is intact and containing bore gas pressure as intended. Any breach of the liner will expose the outer jacket to bore pressure, resulting in a loss in pressure indicated by the “real time” annulus monitoring. This monitoring will alert Rockpoint that third party damage or liner failure may have occurred, allowing prompt response for further investigation. Rockpoint will use this monitoring capability and monitor this annular pressure with a SCADA system on a continuous 24-hour basis.
- iii. The FlexSteel fittings must be designed to allow the annulus of each segment of pipe to be common with each other, so that monitoring of the annular space can be conducted at one end of the system.
- iv. A pressure relief valve with an 18 psig set point must be installed with annulus monitoring equipment to maintain the 15 to 20 psig pressure range. This relief and the associated annulus monitoring equipment must be located within a fenced area.
- e. Gas Temperature: Rockpoint must continuously monitor natural gas temperature at the discharge to ensure that the pipeline is not exposed to temperatures exceeding 150 degrees Fahrenheit (°F). If the FlexSteel pipe is exposed to temperatures exceeding 150 °F, the State Waiver segment pipeline must be shut down, pressure reduced to a



maximum of 20% below the current operating pressure, and CPUC must be contacted within two (2) working days of the detection for their review.

f. SCADA and Shut-In:

- i. Rockpoint must continuously monitor the State Waiver segment with a SCADA system. Remote controlled valves should be installed for the State Waiver segment when Rockpoint determines that such installation is in the public interest.
- ii. If communication is lost for over three (3) hours, Rockpoint must have personnel onsite to continue operations and monitoring of the State Waiver segment.
- iii. Rockpoint must document SCADA operating procedures and Control Room Management Procedures (49 CFR 192.631), within the O&M Procedures for the State Waiver segment.

8. Construction and Operations

- a. Tools and Equipment: Rockpoint must have tools and fittings available either by stocking such or from a local vendor such that it can respond within a reasonable time to operational maintenance and emergency repairs (the number and types must be detailed in the O&M Procedures):
  - i. An inventory of tools and materials must be indicated in the O&M Procedures for maintenance and emergency repairs.
  - ii. Rockpoint must have available either by stocking such or from a local vendor appropriate tools and fittings to repair and replace appurtenances and piping within the State Waiver segment.
  - iii. Rockpoint must maintain a supply of FlexSteel pipe at Rockpoint's project and/or operational maintenance yards for the State Waiver segment.
  - iv. Construction Specifications: Rockpoint must develop construction specifications for all construction phases of the State Waiver segment. These construction specifications must be made available to CPUC prior to beginning construction of the State Waiver segment pipeline.
- b. Inspection criteria: Rockpoint must develop inspection criteria for construction procedures and document them within the O&M Procedures. The inspection criteria must meet the requirements of these State Waiver conditions and 49 CFR Part 192 (except as waived or modified herein). These inspection criteria must be made available to CPUC prior to beginning construction of the State Waiver segment pipeline.

- c. Repair criteria: Rockpoint must develop pipe repair criteria and document them within the O&M Procedures. Repair criteria must be submitted to CPUC 30-days prior to beginning construction of the State Waiver segment pipeline.
- d. Hydrostatic test: Prior to Rockpoint putting the pipe in service, the pipe, connections, and appurtenances must be field hydrostatically tested at a pressure of 1.5 times the MAOP for a minimum of 24 hours with recording charts (pressure chart, temperature chart, dead weights and log, and calibration records of equipment, calibrated within 30 days of test), the results of which must be made available to CPUC for review, including determination parameters of an acceptable test. Rockpoint must compensate for temperature and elevation variations and such compensation must be documented on test records.
- e. Leakage detection surveys: Rockpoint must conduct leakage detection surveys of the entire State Waiver segment four (4) times per calendar year at a minimum, not to exceed 4-½ months between surveys, utilizing instrumented leak detection equipment capable of parts per million (ppm) detection. Rockpoint must repair all leaks as they are found, and notify CPUC of any leaks found within two (2) business days. Leak testing procedures, equipment, and scheduling must be documented within the O&M Procedures. The first survey must be performed within 48 hours of commencement of pipeline operations with natural gas.
- f. As defined in Condition 1, any new construction outside the State Waiver segment must conform to 49 CFR 192.327 - Cover.
  - i. Rockpoint must conform to the depth of cover requirements in 49 CFR 192.327 for any new construction outside of the State Waiver segment.
  - ii. Based upon available depth of cover information, the depth of cover of the existing pipeline may not meet 49 CFR 192.327 requirements depending on soil conditions (i.e. Class 1 locations in consolidated rock may be installed at a depth of cover of 18 inches per 49 CFR 192.327 as opposed to an installation depth of cover of 30 inches in normal soil). All pipe locations with cover less than 24-inches must have additional preventive and mitigative measures such as additional

pipeline markers, lowering the pipe, adding cover, or installing subsurface concrete safety barriers.<sup>3</sup>

iii. Due to the insertion method, periodic bell holes will be dug and sections of the existing pipeline will be removed to facilitate the installation process. In these areas, the FlexSteel coupler fittings will be direct buried, along with the adjacent FlexSteel pipe. To minimize environmental impacts, the bell holes will be kept to a minimum length that will allow for the safe installation of the FlexSteel pipe. The expected length of the bell holes is anticipated to be approximately 100 feet long. Rockpoint's must install the FlexSteel coupler fittings to a depth that satisfies 49 CFR 192.327, where practicable. To mitigate any potential impingement of the outer FlexSteel liner or damage to the casing Link-seal, Rockpoint may need to bury the FlexSteel pipe and fittings up to the depth of cover of the existing line.

1. These areas must have line markers and/or test stations installed to designate the location of the line. Warning tape must also be installed approximately one (1) foot above the pipe.

iv. At locations where it is possible to lower the FlexSteel pipe without the potential of impingement of the outer liner, Rockpoint must install the pipe at a depth per the requirements of 49 CFR 192.327.

v. Rockpoint must perform patrolling of this line four (4) times per calendar year at a minimum, not to exceed 4-½ months between surveys. The patrols must include observations of any locations that may have become exposed. These exposures must be reviewed and prioritized for remediation per Rockpoint's O&M Procedures, not to exceed 12-months.

## 9. Communication and Records

a. Communication and contact of personnel: Rockpoint must maintain a log of all material suppliers and vendors, consultants, subcontractors, Rockpoint employees, and all other parties involved in the material supply, design, construction, and O&M of this State

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<sup>3</sup> Rockpoint must submit to CPUC and must receive a "no objection" letter for the type of preventive and mitigative measures are being used on all pipe and casing segments with cover less than 24-inches.

Waiver segment with name, address, phone number, mobile phone number, e-mail, and other pertinent information, including COQ and operator qualification (OQ) training data.

- b. Photos and Videos: Rockpoint must develop documentation that is representative of the following phases of the State Waiver segment construction utilizing FlexSteel pipe and fittings: Offloading, stringing/uncoiling, inserting, pulling-through, joining/swaging, coating of fittings, cathodic protection installation and backfilling. The representative operations must be documented with photographs, videos or other appropriate forms of documentation, which must be made available to CPUC within 90 days of the State Waiver segment in-service date.
- c. Design and Material Review: Before operating the pipeline with natural gas, Rockpoint must make available the following information, to CPUC:
  - i. Specific materials used in the FlexSteel line pipe used in the State Waiver segment, with detailed schematic of the layers, layer thickness, outside diameter, and inside diameter;
  - ii. Pipe manufacturing quality assurance processes and programs including, but not limited to, procedures, pipe and material test results, standards followed, certifications, manufacturing personnel qualifications, and any other items regarding quality assurance;
  - iii. Design criteria - for each Class location, road crossings, and stream crossings, if applicable, see Conditions 1(b) and (c) above;
  - iv. Calculations of maximum loads that the FlexSteel pipe can tolerate and will be subject to in service;
    - 1. Due to the nature of the insertion installation method, most the installed FlexSteel pipe must be cased, which includes all road crossings.
    - 2. Rockpoint must require any planned third party heavy equipment crossings of the State Waiver segment to be approved through an encroachment agreement. All heavy equipment crossings of the State Waiver segment must include the requirement for the crossing to have construction hardwood mats, steel plates, air bridges, or concrete pads over the segment installed prior to traversing the pipeline. Rockpoint must require a crossing to ensure that excessive live loads are not transmitted into the Flex Steel pipe by following industry accepted standard API 1102

(latest edition) for calculating the anticipated stresses on the pipe to not exceed a 30% of burst pressure and evaluated by a Rockpoint subject matter expert.

- v. Process and calculations used to establish MAOP, consistent with this State Waiver and 49 CFR Part 192 (except as waived or modified herein); and
  - vi. Detailed comparison and correlation of the established MAOP with the Hydrostatic Design Basis (HDB) of the FlexSteel pipe.
- d. Construction Start: At least 14 days before beginning construction, Rockpoint must notify CPUC of the date, time, and location of pipeline installation and provide opportunity for CPUC to witness the installation.
- e. Material Records: Rockpoint must provide records showing manufacturer personnel and a Quality Assurance (QA)/Quality Control (QC) inspector were onsite conducting inspections during installation of all connections, flanges, and the laying of pipe to ensure that proper technical evaluation of installation procedures was conducted. Mechanical and chemical property test reports of all pipe must be maintained by Rockpoint for the operational life of the pipeline.
- f. Pipe Installation Records: Rockpoint must provide an installation report detailing any Construction or QA/QC issues that arose during installation that may have compromised the integrity of the pipe and document how such issues were addressed to maintain the FlexSteel pipe integrity, including but not limited to:
- i. Material Damage - material loss or damage that will result in repair or replacement, both internal and external;
  - ii. Pipe dents - maximum dent percentage that pipe can sustain, and repair methods;
    - 1. Dents greater than 6% of outside pipe diameter must be removed and replaced.
  - iii. Any scratch or gouge:
    - 1. 0.11811-inches (3 millimeters (mm)) in depth or less must be considered acceptable;
    - 2. 0.11811-inches (3 mm) or more in depth but does not expose the inner steel core and is less than six (6) square inches in area can be repaired;

3. 0.11811-inches (3 mm) or more in depth but does not expose the inner steel core and is more than six (6) square inches in area must be cut out and replaced; or
  4. That exposes the inner steel core must be cut out and replaced.
- iv. Bending - maximum pipe bending radius during installation; and
  - v. Environmental Effects - temperature, moisture, freezing, or soil.
- g. If at any time Rockpoint becomes aware of a threat to the integrity of the State Waiver segment pipe that poses a risk to the public, or a failure risk, Rockpoint must notify CPUC immediately. Concurrent with such notification, Rockpoint must outline the potential mitigative and integrity measures that could be used to address the threat or risk, including replacement with steel line pipe currently approved by 49 CFR Part 192.
  - h. Rockpoint must notify CPUC within five (5) days if:
    - i. Repairs and modifications are required or made to the FlexSteel pipe, including fittings;
    - ii. The State Waiver segment is at any time damaged or hit; or
    - iii. The pipe or fitting manufacturer issues a product recall, or materially modifies the product defect specification in response to safety concerns. In the event of a product recall or material defect pertaining to the FlexSteel products used in the State Waiver segment, Rockpoint will notify CPUC within five (5) days of becoming aware of the recall or material defect.
  - i. Manuals - Design, Construction, Operating, Maintenance, and Emergency Response: Rockpoint must submit those manuals, procedures, specifications, or other documents pertaining to the Design, Construction, O&M, and Emergency Response related to the State Waiver segment for review by CPUC at least 30 days prior to operation of the State Waiver segment pipeline, unless otherwise indicated in writing by CPUC.
  - j. Post-Construction review with CPUC:
    - i. Rockpoint must conduct a post-construction State Waiver review with CPUC. The purpose of such review is to review the documentation of Rockpoint's compliance with all construction-related State Waiver conditions and have been incorporated into their O&M Procedures. Rockpoint must contact CPUC within 14 days before completion of construction of the pipeline. The review must take

place after construction has been completed but before operation commences, unless otherwise approved by CPUC.

- ii. Rockpoint must complete this review prior to submitting to CPUC the certification required in Condition 13 below.
- k. Annual Review: Rockpoint must conduct a one (1) year O&M review for the State Waiver segment and annually thereafter, not to exceed 15 months. The review will be made available to CPUC each calendar year by Rockpoint after pipeline operations (in-service) begin in the State Waiver segment.

#### 10. Gas Quality

- a. Rockpoint must develop and implement a program to monitor and mitigate the presence of deleterious gas stream constituents through the usage of continuous monitoring equipment, such as chromatographs, for gas sampling.
- b. Rockpoint's Supply Transmission System must maintain a tariff with gas quality requirements for shippers to meet. These requirements are as follows.
  - i. All gas must contain no more than twenty (20) grains of total sulfur (S), nor more than three-tenths (0.3) grain of hydrogen sulfide ( $H^2S$ ) per one hundred (100) cubic feet;
  - ii. All gas must contain no more than two-tenths of one percent (0.2 of 1%) by volume of oxygen ( $O^2$ );
  - iii. All gas must contain no more than four percent (4%) by volume of a combined total of carbon dioxide ( $CO^2$ ) and nitrogen ( $N^2$ ) components; provided, however, that the total carbon dioxide ( $CO^2$ ) content must not exceed two percent (2%) by volume;
  - iv. All gas must have a temperature of not more than one hundred twenty degrees Fahrenheit; and
  - v. All gas must have been dehydrated by Rockpoint for removal of water in a vapor state, and in no event, contain more than seven (7) pounds of water vapor ( $H^2O$ ) per million cubic feet.
- c. This gas composition requirement must be within the specification for the FlexSteel material being used for the State Waiver segment.
- d. Rockpoint must actively monitor the gas entering its system to ensure the product being transported meets this gas quality standard. Rockpoint must monitor the gas quality

- passing through its system and the gas composition must be analyzed on a semi-annual basis.
- e. If the gas composition has been found to be out of specification the gas supply must be shut off per Rockpoint O&M Procedures.
  - f. If it is determined that the commodity transported in this pipeline State Waiver segment is not compatible with, and proves detrimental to, the pipe material, CPUC and PHMSA reserves the right, as a condition of this waiver, to curtail or discontinue the use of this pipe material.

#### 11. Right-of-Way Management Program

- a. Rockpoint must incorporate the applicable best practices of the Common Ground Alliance (CGA) into its damage prevention program within the State Waiver segment.
- b. Rockpoint must install and maintain line-of-sight markings on the pipeline in the State Waiver segment except in agricultural areas or large water crossings such as lakes where line-of-sight signage is not practical.

#### 12. Annual Reporting

Annually, following the grant of this State Waiver, Rockpoint must make available the following to CPUC:

- a. The number of new residences, other structures intended for human occupancy and public gathering areas built within 220 yards of the pipeline centerline and along the State Waiver segment.
- b. Any new integrity threats identified during the previous year and the results of any excavations or other integrity assessments performed during the previous year in the State Waiver segment including any encroachments from right-of-way patrols, gas leakage patrols, or other call-outs, and any gas leakage from these activities or from SCADA monitoring or annulus monitoring pressures greater than 20 psig.
- c. Any DOT and CPUC reportable incident, any leak normally indicated on the DOT Annual Report, and all repairs on the pipeline that occurred during the previous year in the State Waiver segment.
- d. Any on-going damage prevention initiatives affecting the State Waiver segment and a discussion of the success of the initiatives.
- e. Any mergers, acquisitions, transfer of assets, or other events affecting the regulatory responsibility of the company operating the pipeline.



- f. Rockpoint must identify and document any potential threats, and how they will be mitigated. If a threat was identified in a past annual report, how the threat was mitigated must be documented.
- g. Annual reports must be received by CPUC by the last day of the month in which the State Waiver is dated. For example, the annual report for a State Waiver dated March 15, 2024, must be received by CPUC no later than March 30, each year beginning in 2025.

### 13. Certification

A senior executive officer of Rockpoint, vice president or higher, must certify in writing the following:

- a. Rockpoint pipeline meets the conditions described in this State Waiver and 49 CFR Part 192 (except as waived or modified herein) for the State Waiver segment.
- b. Rockpoint has maintained the following records for the State Waiver segment and included these requirements in Rockpoint's O&M Procedures:
  - i. Documents (material test reports) certifying that the pipe in the State Waiver segment meets the requirements of API 15S, Third Edition and all related material standards in this State Waiver and 49 CFR Part 192 (except as waived or modified herein).
  - ii. Documentation of compliance with all conditions of this State Waiver must be retained for the applicable life of this State Waiver for the referenced State Waiver segment.
- c. That all procedures and specifications for the Rockpoint pipeline have been updated to include all additional construction, and O&M requirements of this State Waiver and 49 CFR Part 192 (except as waived or modified herein) applicable sections; and
- d. That Rockpoint has reviewed and modified its damage prevention program relative to the Rockpoint pipeline to include any additional conditions required by the State Waiver.
- e. Rockpoint must send the certifications required in Condition 13 (a) through (d) with completion date, compliance documentation summary, and the required senior executive signature and date of signature to CPUC within 30 days prior to placing the State Waiver segment into natural gas service.

### 14. Limitations:

This State Waiver is subject to the limitations set forth in General Order (GO) 112F section 101.3 as well as the following limitations:

- a. CPUC has the sole authority to make all determinations on whether Rockpoint has complied with the specified conditions of this State Waiver. CPUC may consult with PHMSA on any matter related to this State Waiver. Failure to comply with any condition of this State Waiver may result in revocation of the permit and require Rockpoint to comply with the regulatory requirements.
- b. Any work plans and associated schedules for the State Waiver segment are automatically incorporated into this State Waiver and are enforceable in the same manner.
- c. Failure by Rockpoint to submit the certifications required by Condition 13 (Certification) within the time frames specified may result in revocation of this State Waiver.
- d. CPUC may issue an enforcement action for failure to comply with this State Waiver. The terms and conditions of any corrective action order, compliance order or other order applicable to a pipeline facility covered by this State Waiver will take precedence over the terms of this State Waiver.
- e. If Rockpoint sells, merges, transfers, or otherwise disposes of all or part of the assets known as the Site 6 Pipeline in the State Waiver segment, Rockpoint must provide CPUC with written notice of the change within 30 days of the consummation date. In the event of such transfer, CPUC reserves the right to revoke, suspend, or modify the State Waiver if the transfer constitutes a material change in conditions or circumstances underlying the permit.
- f. CPUC grants this State Waiver to limit it to a term of no more than 10 years from the date of issuance. If Rockpoint elects to seek renewal of this State Waiver, Rockpoint must submit its renewal request at least 180 days prior to expiration of the 10-year period to CPUC. CPUC will notify PHMSA of the renewal request. All requests for a renewal must include a summary report in accordance with the requirements in Condition 12 (Annual Report) above and must demonstrate that the State Waiver is still consistent with pipeline safety. CPUC and PHMSA may seek additional information from Rockpoint prior to granting any request for State Waiver renewal.