

**Appendix A**  
**Staff's Recommended Analysis, Section 3.0**

1. Identify the length along the steel main for which gas temperatures will be elevated by addition of RNG. If the temperature increase extends beyond this main segment, connected main segments should also be evaluated.

**Company Response:** The main segment that the RNG will flow from the RNG Project to the Company's existing distribution system is the 4,411', 8.625" OD, 0.322" WT steel outlet piping, and gas will flow in one direction from the RNG facility to the Spire distribution system. Per the modeling performed and provided as Appendix B, the gas temperature at the point of interconnecting the 4,411' main segment to the Spire distribution system (point 3 on Appendix B) is anticipated to be ~93.47°F, based on a 120°F RNG gas delivery temperature at the Spire interconnect M&R skid. Spire reviewed the modeling assumptions and per the Joule-Thomson effect, overall pressure drop and below grade pipeline the anticipated estimated temperature is reasonable.

2. Along this length of main, identify each plastic pipe or other plastic component connected to the steel main.

**Company Response:** There are no plastic pipe or other plastic components connected to the 4,411' steel outlet pipe. The steel outlet pipe connects to an existing Spire steel main.

3. For each plastic pipe or other plastic component installed at a location experiencing elevated temperatures, estimate what the maximum gas temperature may be at that location following the injection and co-mingling of RNG. In the absence of such estimate, the maximum estimated RNG temperature of 120 °F may be used.

**Company Response:** Not applicable. See response to Part 2. Additionally, the gas temperature at the point of interconnecting the 4,411' main segment to the Spire distribution system is anticipated to be ~93.47°F as noted in part 1 above.

4. Utilizing the method of interpolation provided in the PPI TR-3, and data from the version of TR-4 applicable to the pipe vintage, calculate the Design Pressure for each of the identified connected plastic pipe and component using the equations from Commission Rule 20 CSR 4240-40.030(3)(I) at the temperature estimated in Step 3.

**Company Response:** Not applicable. See response to Part 2.

5. Compare the calculated Design Pressure for each of the identified plastic pipe segments and components to the current Maximum Allowable Operating Pressure (MAOP) for that part of the system and indicate if a reduction in MAOP will be required.

**Company Response:** Not applicable. See response to Part 2.

6. For each segment of pipe evaluated, Spire must enter the information on the log sheet provided in Appendix A.

**Company Response:** Not applicable. See response to Part 2.

7. A copy of each log sheet must be filed in Case No. GE-2026-0249 prior to injection of RNG at elevated temperature.

**Company Response:** Not applicable. See response to Part 2 and Part 6.

8. In the event that the results of the analyses indicate that a reduction in pressure is needed, the pressure must be reduced prior to injection of RNG at elevated temperatures.

**Company Response:** Acknowledged. The outlet pipeline from the RNG facility to the Spire distribution system is all steel as noted in Part 1. No plastic pipe or other plastic components are connected to the steel outlet piping.