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Preliminary Report PLD24FR003

*This information is preliminary and subject to change.*

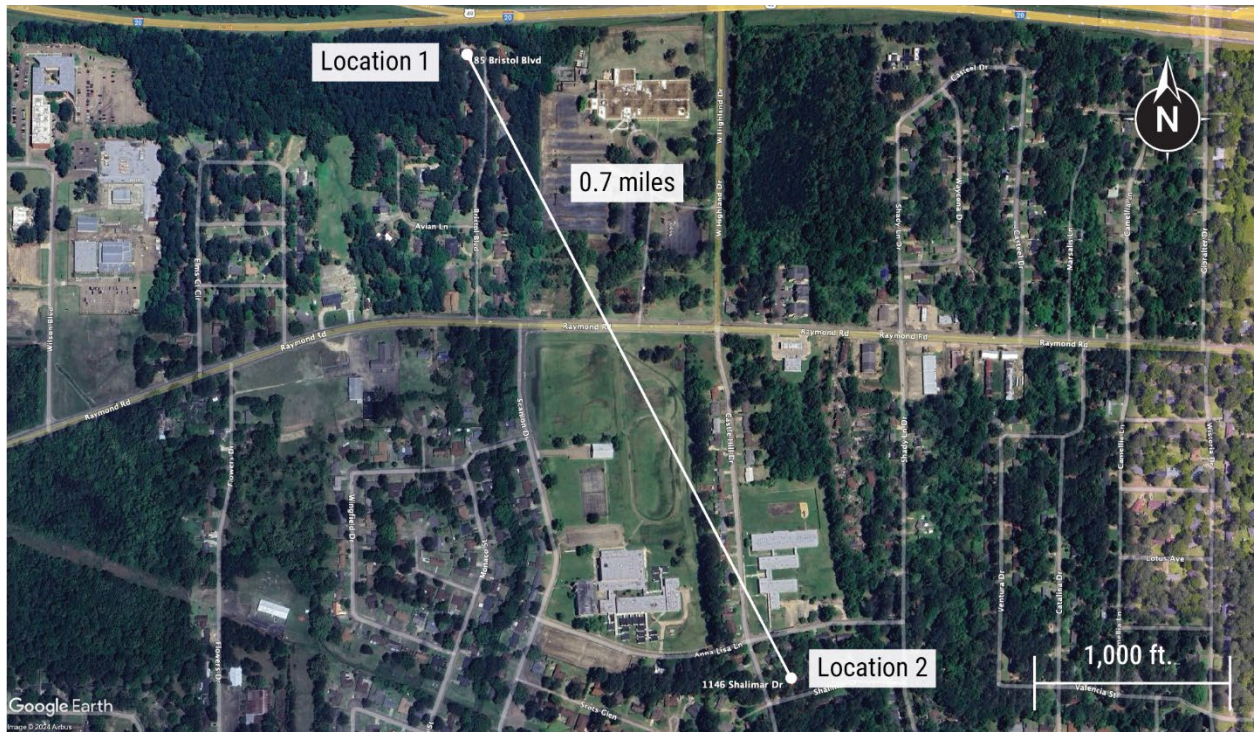
# Atmos Energy Corporation Natural Gas-Fueled Home Explosions and Fires

Jackson, Mississippi  
January 24 and 27, 2024

On January 24, 2024, about 8:14 a.m., a home explosion and fire occurred at 185 Bristol Blvd. (location 1) in Jackson, Mississippi, resulting in one fatality and one injury.<sup>1</sup> While the National Transportation Safety Board (NTSB) investigative team was traveling to the scene, the NTSB learned of a second home explosion and fire. The second explosion occurred at 1146 Shalimar Drive (location 2) about 4:34 a.m. on January 27, 2024, about 0.7 miles southeast of the first explosion, and the fire from the explosion spread to a neighboring home. (See figure.) No fatalities or injuries were reported in relation to the explosion at location 2. All three homes were destroyed. Weather conditions on January 24, 2024, were light to heavy rain and thunderstorms with a temperature of about 62°F; on January 27, 2024, there was light to heavy rain with a temperature of about 61°F. Damage estimates were still being determined at the time of report publication.

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<sup>1</sup> All times in this report are local times.



**Figure.** Map and photographs of explosion locations. (Courtesy of Google Earth, the Mississippi Public Service Commission [Location 1 inset], and the Pipeline and Hazardous Materials Safety Administration [Location 2 inset].)

Natural gas service to the affected homes was provided by Atmos Energy Corporation (Atmos). Atmos' natural gas distribution system near locations 1 and 2 was constructed of 2-inch coated steel main and installed in the 1960s and early 1970s. The operating pressure of the pipeline at the time of the explosions was about

36 pounds per square inch gauge (psig) at locations 1 and 2, both below the maximum allowable operating pressure.<sup>2</sup>

Before these explosions, Atmos identified and classified leaks on their distribution system near locations 1 and 2. The leak nearest to location 1 was discovered on November 11, 2023, and classified as a grade-2 leak, meaning that it was nonhazardous but would require repair in the future.<sup>3</sup> The leak nearest to location 2 was discovered on December 1, 2023, and was classified as a grade-3 leak and therefore nonhazardous.<sup>4</sup> Neither leak was repaired before the explosions.

Both before and after NTSB investigators arrived, Atmos conducted postaccident leak inspections at both locations and found leaks on mechanical couplings near the previously identified leaks. Atmos detected subsurface gas at the leaks nearest locations 1 and 2, the homes where the explosions occurred, and near the foundations of adjacent homes.

While on scene, NTSB investigators examined the sites where the explosions and fires occurred, gathered documentation, completed interviews, and recovered physical evidence from both locations for examination by the NTSB Materials Laboratory.

The NTSB's investigation is ongoing. Future investigative activity will focus on Atmos' leak assessment methods, evaluation of hazards associated with identified leaks, response to odor complaints, repair criteria, integrity management, and pipeline safety management systems, as well as causal factors.

Parties to this NTSB investigation include the Pipeline and Hazardous Materials Safety Administration, the Mississippi Public Service Commission, and Atmos.

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<sup>2</sup> The maximum allowable operating pressure was 40 psig near both locations.

<sup>3</sup> Atmos classifies leaks in its Operations and Maintenance Guide based on 2022 Gas Piping Technology Committee standards. A grade-2 leak is one that is recognized as being nonhazardous at the time of detection but justifies scheduled repair based on possible future hazard. A grade-2 leak requires repair within 1 year. Gas Piping Technology Committee Z380, ANSI GPTC Z380.1-2022, "The Guide for Gas Transmission, Distribution, and Gathering Piping Systems" Including Addenda 1 and 2 (2022).

<sup>4</sup> A grade-3 leak is one that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous. Grade-3 leaks are to be reevaluated during the next scheduled survey, or within 15 months of the date reported.