

CoJ engineers identify 3 potential causes of Joburg CBD explosion

Engineers at the City of Johannesburg have identified three possible causes of the deadly explosion that ripped through Lillian Ngoyi (Bree) Street on Wednesday, 19 July. The blast claimed the life of one person and injured at least 48 others.



Source: [@SAGovnews/Twitter](#)

During a technical media briefing on Thursday evening, city manager Floyd Brink said engineers, experts and all technicians combed through the scene to identify the causes.

“At this stage, our preliminary investigations have presented us with three possible scenarios for the explosion.

“These are ignition of methane gas in underground stormwater systems due to sewerage ingress. The second possibility considered is the ignition of natural gas, mixed with air in underground stormwater drainage systems or service ducts.

“The third and last possibility is the ignition of gas from a gas pipe burst,” Brink said.

He said, however, that at this stage, “only one of the above potential causes appears to be warranted - accidental leakages of natural gas into the service duct reaching explosion concentration levels of between 5% to 15% [which] was ignited by [an unknown source] at this stage. The source of gas in the service duct is unknown”.



1 killed, 48 injured following explosion in Joburg CBD

20 Jul 2023



No signs of impact on surrounding buildings

Brink said a team was sent into the area to test the structural integrity of buildings in the area following the blast.

“We sent through a technical team of civil engineers and structural engineers, and they’ve now inspected those buildings and at this stage we can report to you that there are no signs of failure that have been detected and the buildings are regarded, at this point, as structurally sound for occupation,” he said.

Furthermore, environmental services has also been roped in to test the air quality in the area following reports of a pungent smell of gas.

“We’ve been assured by the environmental services and the air quality controllers of the city that the gas leaking into the atmosphere poses no risk to residents as the concentration reduces rapidly in open air. As and when there is a level of leak and the smell, it then subsides quite quickly.

“However, gas leaks into subsoil cavities such as basements can be fatal,” he said.

“ *One person was killed and eight are still in hospital following the explosion in the Joburg CBD. Gauteng Premier Panyaza Lesufi says they are still trying to identify the deceased victim. [#Newslink #DStv403](#) pic.twitter.com/MtqU6mPeuC— eNCA (@eNCA) [July 21, 2023](#)* ”

Multi-disciplinary team to assess situation

Brink said a multi-disciplinary team has been formed to carefully assess the situation over the next 72 hours.

“The team...is working around the clock to secure the site, conclude their investigations and also to restore services for residents in the area. Johannesburg Water...has deployed water tankers to support the residents in the area. This will also be augmented by mobile ablution facilities.

“Similarly, once the site has been declared safe, Joburg Water will require three days to repair the sewer line in the area to reactivate the services.

“City Power will also be deploying their technicians to assess power line damages along 400m of the site and will only reenergise the area once it has been declared safe to do so,” he said.

For more, visit: <https://www.bizcommunity.com>