



a world class African city

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STATEMENT BY THE CITY MANAGER OF JOHANNESBURG ON THE GAS EXPLOSION IN JOHANNESBURG

02 August 2023

Members of the Media

Ladies and Gentlemen

Today, we received a report from the Service Provider undertaking investigations into the cause of the gas explosion that occurred on Lilian Ngoyi Street (formerly Bree Street).

The following professionals were added to the COJ team with specialist skills for inspections and investigation:

- Fire specialist with experience in industrial explosions and gas systems
- International fire dynamics and explosion simulation specialist Engineer
- Specialists in Explosion, gas & fire dynamics at Universities and International network of Fire Engineers
- Structural engineer
- Geotechnical engineer
- Electrical engineer
- Civil engineer
- Forensic specialist
- Occupational health and safety professional

The following were ruled out by the investigation:

- No Terrorist action or zama-zamas or cable theft or foul play by anybody
- All emergency responses by EMS, JMPD, and all Departments are effective and compliant, and no shortcomings are to be addressed.
- It was not an Egoli pipeline explosion or pipe rupture nor a large leak before the explosion, only post-explosion as confirmed on the timeline of the Egoli Gas SCADA (supervisory control and data acquisition) monitor system.
- No negligence by electricity or any department or any intentional action by individuals or intentional release of gas into the tunnel.
- No signs of people living in the tunnels nor recent cable theft were found.

Cause

The type of gas that fuelled the explosion is Methane, which is lighter than air and travelled up along the services tunnel, from an unknown source to the crest of the tunnel near Von Brandis Street.

The specialists will share a presentation which will give more details on the cause of the explosion.

The delivery of this report marks the end of the immediate response work we reported on previous and paves that way to our medium interventions which will include the restoration and repair work.

Our rough estimate for repairs currently sits at R178 million. This estimate might change once we receive the detailed designs for the entire project.

In the interest of transparency, it is important to report to residents of Johannesburg that the City has so far spent around R4 million in this project on professional experts' services, cording off the site, technology used and the provision of temporary relief services in a form of Water tankers and temporary ablation services.

A lot of lessons were learned following this unfortunate incident. In order to avoid future recurrence, the tunnel design will be upgraded based on current international codes for tunnels to reduce the risk and severity of explosions.

We will also introduce continuous gas detection and alarms and gas detector sensor monitors for all staff working the tunnels regularly.

Our tunnels design will be based on International relevant Standards i.e. NFPA Standards (NFPA 68, 69, 502, 921, etc.) for tunnels and fire and explosion preventions with accidental combustible gas release in tunnels or cavities.

Detection based on NFPA 72 Standard rest will be based on South African relevant standards SANS for water, sewer, and road designs. Tunnel roof and sidewalls will be designed to withstand and depressurize with deflagration vents a 9.5% Methane explosion. Suitable materials for the tunnel would be reinforced, concrete side walls and roofs designed for this over-pressure and release.

At this stage, we remain confident that we are on the right path in our efforts to respond and recover from the incident and will once more implore the public to bear with us and to give us space to do all we must for the successful recovery of the site and services.

Before I hand over to Johan to take you through the report, I just want to quickly address the reports which seek to suggest that the City does not have internal capacity to deal with disasters.

I find these to be misguided and misinformed for the emergency we had to deal with.

During such an emergency, highly specialised technical skills are required and the additional technical support and assistance can be leveraged from the private sector and/or industry is standard practice.

Calling on the specialized knowledge and expertise demonstrates the City's willingness and ability to acquire the best available knowledge to efficiently respond to an emergency of this nature.

Unless a City is in an area or location of regular emergency incidents, the permanent employment of a highly specialized technical skills would be warranted. In the case of Johannesburg infrequent occurrences of such emergency situations negates the need to do so.

The existing technical skills employed in the City of Johannesburg are more than capable of conducting the duties and activities associated with their positions and skills but may at time be limited during other major incidents prompting the City to acquire the best available knowledge.

Let me now handover to Johan to take you through the report.

Thank you.