



MeshTrack

COMPLIANCE BRIEF · 2026

MHSA Reg 16.7 – last-known-location, done right.

What the regulation requires underground, why most locating systems fail the test, and how MeshTrack delivers it on a self-healing mesh built for the moment it matters.

REG 16.7

WIREPAS MESH

BUILT IN SOUTH AFRICA

THE MANDATE

The law changed. There was no grace period.

On 28 March 2025 Chapter 16 of the MHSA regulations was substituted (Government Gazette 52388, Notice 6052). Regulation 16.7 is effective on publication, with no transitional period.

“No person goes underground at the mine without an intrinsically safe device to determine the last known location of such a person ... in the event that they go missing while in underground workings.”

The requirement is triggered by the Section 11 risk assessment for hazards such as engulfment, slope failure and water, mud or rock flow. A shaft without a compliant locator carries the risk of a Section 54 stoppage.

Why the regulation exists

At Lily Mine in February 2016 a crown-pillar collapse took down the lamp room with three workers inside, and the on-site locating device failed to find them. Reg 16.7 is the regulator's response – and it is specifically about knowing a last location once something has already gone wrong.

What Reg 16.7 asks for, and how MeshTrack meets it.

An intrinsically-safe device on every underground worker	An intrinsically-safe cap-lamp tag option – replaceable coin-cell, shift-length battery. IS certification confirmed against the supplied hardware at quote.
A last known location “in the event of system damage or failure”	The Wirepas mesh self-heals on node loss and the last anchor hop persists – so a location survives when a section fragments in a collapse, fire or flood.
A data-logging facility with retrievable position history	Position history at the anchor and in the cloud, with a signed, time-stamped export pack ready for MHSI inspection.
Two-way alerting and emergency-response integration	An eye-sensor tag with button, motion and temperature raises missing-person, tamper and low-battery alerts into your existing control rooms.

WHY THE MESH, NOT A BACKBONE

Resilience is the whole point.

✗ Leaky-feeder backbone

A cabled backbone severs in exactly the collapse, fire or flood the regulation was written for – dark at the worst moment.

✗ Cap-lamp RFID at portals

An entry/exit headcount at the shaft top – zero position once a worker is underground.

✗ UWB / Wi-Fi / LoRaWAN

Single points of failure, often not Ex-rated or not real-time – they don't hold up to the environment or the requirement.

✓ MeshTrack · Wirepas mesh

Battery anchors relay hop-by-hop; self-heals on node loss; the last hop persists. Extend coverage past the last connected gateway into the workings.

Everything the compliance case needs.

Real-time positioning

Sub-second updates on web, iOS and Android over the Wirepas mesh.

Zones, alerts & rules

Per-shaft geofences, missing-person, tamper and low-battery – push, email, SMS, webhook.

Audit-grade evidence

90-day replay, 12-month archive and signed exports for MHSI inspection.

Deploy your way

Managed cloud under SLA, or customer-hosted on your own infrastructure.

A pilot path to prove it

- ✓ A discovery and risk-assessment workshop.
- ✓ A pilot install on one shaft to validate the system end-to-end.
- ✓ Production rolled out per shaft under SLA.

Talk to us about your operation

Send us your shafts, levels and dead spots and we'll scope a Reg 16.7 deployment: intrinsically-safe tags, a resilient anchor grid and audit-ready evidence.

meshtrack.co.za/contact • info@sethala.com

MeshTrack is an operational visibility platform. Real-world performance depends on hardware, connectivity and site conditions, and the mine remains responsible for its own legal, safety, regulatory and emergency-response obligations. Intrinsic-safety certification is confirmed against the supplied hardware at quote. Regulatory references: MHSA Regulation 16.7 (Government Gazette 52388, Notice 6052, 28 March 2025). Mandate paraphrased; consult the gazette and your legal advisors for the authoritative text.