



- **Industrial and Commercial Master Installation Electrician**
- **Maintenance and Inspection of EX Electrical Equipment**
- **Hazardous Area Classification and Certificates Of Compliance (COC's)**
- **Electrical Auditing and Compliance Inspections**



Who We Are

SPECTRICAL is a boutique consulting firm led by Julian, a practicing Master Installation Electrician (MIE) and registered assessor/trainer.

With 20+ years of active field work in explosive atmospheres (gases, vapours, combustible dusts), we bridge real-world installations with classroom training—unlike legacy title-holders with limited hands-on experience.



Trusted Support Team

Our team deliver precise audits, defensible reports, certifications and ongoing support. Our network includes design engineers and accredited test labs for seamless solutions.

[We work to get you safe, compliant and hazard free and then keep you there.]

Our Core Services

- Hazardous area classification & audits (SANS 60079-10-1/-10-2)
- Equipment inspections & compliance verification (EX-rated suitability)
- Detailed reporting & remediation recommendations
- Certificate of Compliance (CoC) issuance for explosive atmospheres
- Periodic inspections & sustained technical support
- Safety & Awareness Training — Including country-wide hazard recognition, risk mitigation, PPE selection
- Training/assessment support in hazardous locations

Proven Results

We support Hazardous Area (EMR 9) compliance by providing clear insights, early warnings, and ongoing risk monitoring. We track repeat issues and provide practical guidance to prevent escalation.

- Actively in the field daily; practical, not theoretical.
- Guided industry giants from non-conformance to full compliance.
- Reports that speak for themselves detailed, evidence-based.
- Ongoing periodic inspections to reduce risk and maintain standards.



Start The Journey to Full Compliance

- 1
Hazardous Area Classification
- 2
Electrical Equipment Audit
& Inspection
- 3
Pre Compliance Reports
- 4
Certificate of Compliance
- 5
Annual or Biennial Inspections
& COC Maintenance Reports

Contact Us for a no-obligation quote: admin@Spectrical.co.za
Call, Text or WhatsApp: 079 494 8899

We serve a broad range of industries with expert electrical solutions, spanning from everyday residential needs to industrial/commercial projects and specialised hazardous locations including high risk Sectors.

- **All Electrical Installations** (Domestic, Commercial, Industrial Installation and Maintenance).
- **Fuel Industries** (Petroleum, Jet A1, Avgas, Fuel Oil, Lubricants & Solvents)
- **Alcohol** (Distilleries, brewing, flammable liquid stores)
- **Chemical** (Storage, Pharmaceutical, solvents & Mining Processing)
- **Alternative Power** (Solar, Battery storage, Generators)

Compliance Tips – Safety First!

As a practicing MIE applying the SANS 60079 series daily, here are some essential tips to avoid pitfalls and ensure safety in explosive atmospheres:

- **Classify Accurately First** — Use SANS 60079-10-1 (gases/ vapours) and -10-2 (dusts) for proper Zones 0/1/2 or 20/21/22. Over-classify wastes budget; under- classify risks lives. Review after process changes.
- **Choose Certified Ex Equipment Only** — Match gas group (IIA/IIB/IIC), temperature class (T1–T6), EPL, and IP rating to your zone. Verify markings and certification—no shortcuts. Use SANS 60079-10-1 (gases/ vapours) and -10-2 (dusts) for proper Zones 0/1/2 or 20/21/22. Over-classify wastes budget; under-classify risks lives. Review after process changes.
- **Install Correctly** — Follow SANS 60079-14: Proper glands/ sealing, equipotential bonding, circuit separation, corrosion/ vibration protection. Avoid hot surfaces exceeding ignition temps—critical in dusty areas.
- **Inspect Regularly** — Per SANS 60079-17: Visual (no tools), Close (without opening), Detailed (de-energized/open). Include housekeeping for dust; document everything.
- **Common Pitfalls to Avoid** — Ignoring dust layers, mismatched equipment, skipping re-classification, poor sealing (moisture/ corrosion), no action on audit findings.

Spectrical turns these standards into practical compliance—our hands-on audits and reports get it right the first time



Arc Flash Safety Training – Delivered Nationwide

Did you know – Any workplace with exposed live conductors—whether in manufacturing plants, commercial buildings, data centres, hospitals, retail facilities, or even office complexes—carries a real risk of arc flash exposure to employees working on or near energized electrical equipment.

Arc flash hazards are not confined to high-voltage substations or utility environments, as many people mistakenly believe.

We can get your facility Arc Flash Compliant!

- Conduct an arc flash survey / risk assessment
- Establish arc flash boundaries.
- Post awareness stickers / labels
- Ensure the correct arc flash PPE category is worn

⚠ WARNING		
 	Arc Flash And Shock Hazard Present Appropriate PPE Required Arc Flash Hazard Boundary 1.042 m Incident Energy 5.528 cal/cm² Working Distance 0.81 m Shock Hazard Exposure 555 V Shock Hazard (Minimum) Category Class 00 Insulating Gloves Voltage 1000 V Limited Approach Boundary 0.867 m Restricted Approach Boundary 0.258 m Prohibited Approach Boundary 0.025 m Source Protective Device Equipment: MFD Pump #3 Switch via Control Panel 2 Main Switch	Hazard Category 1 Min. PPE Requirements: Protective Equipment Hard hat Arc-rated (ASTM) long sleeve shirt and trousers or full coveralls All fabric suit hood, All jacket safety glasses hard hat ear canal inserts heavy duty leather gloves leather footwear PPE CATEGORY 
		

As a practicing MIE with hands-on electrical expertise & Registered Assessor Trainer with the EWSETA, we've recently rolled out comprehensive Arc Flash Training awareness program across South Africa—empowering teams to identify arc flash hazards, work safety, Arc flash boundaries and the correct selection of Arc Flash PPE.

Contact Us for a no-obligation quote.
Call 079 494 8899 or email admin@Spectralical.co.za

Case Study Highlights – What Our Clients Say



"Spectral's audit was thorough and practical — they identified issues we didn't even know existed. Their detailed report guided our remediation perfectly, and we achieved full compliance within months.

Their ongoing periodic inspections give us real peace of mind in a high-risk petroleum environment."

— *Terminal Manager, Petroleum Depot*



"We were facing serious non-conformances in our pharmaceutical solvent handling areas. Julian and the Spectral team rolled up their sleeves, worked hands-on with our engineers, and delivered a clear, defensible compliance path.

The transformation was impressive — from red flags to green lights. Highly recommended for explosive atmosphere expertise."

— *Engineering Director, Pharmaceutical Manufacturing Facility*



"As a combustible dust operation, safety is non-negotiable. Spectral's reports are exceptionally detailed and evidence-based — they've become our go-to for certification and training guidance. Their field-to-classroom experience sets them apart from others."

— *Safety Compliance Officer, Food Processing Plant*



"Spectral turned a complex hazardous area challenge into a straightforward compliance success. Professional, responsive, and genuinely knowledgeable — we've continued with their support services ever since."

— *Project Lead, Alcohol Distillery Group*

**"Our projects market themselves —
built on achievement, delivered with passion."**

Project Highlights

Here are some standout examples of our projects—ranging from large-scale commercial installations to meticulous residential upgrades—all built to the highest engineering standards and delivered with uncompromising perfection. Each one accompanied by its Certificate of Compliance and a track record of zero issues. Safety, quality, and client satisfaction remain our top priorities.

Domestic, Commercial & Industrial Electrical Installations



EMR9 | Hazardous Area Classifications - SANS 10108



Hazardous Area Electrical Ex Installations & Maintenance



Electrical Compliance Inspections & Testing | COC (SANS 10086,10142)



Distribution & Control Panel – from Design through to Installation





Offices in Cape Town and Johannesburg



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