Zarheer Jooma

Electrical Engineer

Zarheer joins e-Hazard U.S. after ten years of managing e-Hazard South Africa and many years of experience with both Eskom Generation and ArcelorMittal, the world's leading steel and mining company. He has performed extensive work in power system design, low and medium voltage reticulation and control systems, and safe operating and maintenance practices. Zarheer has been regarded as the specialist on arc flash safety in South Africa, having convened and chaired SANS 724, the South African national standard for "personal protective equipment and protective clothing against the thermal hazards of an electric arc." He has consulted to major international companies and authored many publications on electric arc hazards.

Professional Experience

e-Hazard Management LLC – Louisville, KY *Oct. 2016 – Present*

- Electrical workplace safety training, consulting and arc flash study specialist serving companies throughout the United States and internationally

e-Hazard South Africa – Johannesburg *2008– Present*

- Principal Engineer and Owner-Operator of the training/consulting company, providing electrical safety training, arc flash assessments and support services to promote and facilitate the safety efforts of client companies throughout the country. Major clients included Alcoa, Eskom Generation, Columbus Stainless, ArcelorMittal, Toyota, Volkswagen, BHP Billiton and Coca-Cola.

ArcelorMittal South Africa--Johannesburg *2007– 2016*

Progress Engineering Manager – Infrastructure, September 2013 – September 2016

- Responsible for the upkeep and introduction of standards and technologies
- Delivered specialized engineering services to the Infrastructure Department (Air, Steam, Gas, Water, Power Generation and Electrical Distribution)
- Managed the process engineering for Air, Steam, Gas, Water and Power Generation plants as well as Gas and Electrical Distribution
- Developed internal standards of practice for engineering and maintenance systems
- Managed all R&D activities pertaining to process improvements, new technologies and product evaluation
- Ensured the integrity and safety of own and third-party employees through the formulation, implementation and controlling of safety, occupational health and labor actions

Acting Plant Manager – Infrastructure, January 2013 – August 2013

- Ensured availability and reliability of Infrastructure resources consisting of Air, Gas, Steam, Water, Power Generation and Electrical Distribution
- Management of safety, health, environmental, risk and quality systems to maintain ISO accreditation
- Managing operational and capital budgets
- Implementation of cost savings initiatives
- Reduction of vacant manning stations and staff turnaround

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info@e-hazard.com

Senior Electrical Engineer – January 2007 – December 2012

- Engineering and preventative maintenance in a Generation, Transmission and Distribution environment. Responsible for high, medium and low voltage installation
- Plant failures, occurrence and accident investigations. Root cause analysis
- Created and managed budgets for capital and maintenance expenditure
- Predictive and corrective maintenance of electrical equipment
- Project management and engineering management

Eskom Generation – Lethabo Power Station *2000 -- 2006*

Electrical Engineer

- System Engineer for electrical plant and substations
  - Plant deficiencies
  - New projects
- Compilation of preventative maintenance strategies and outage work scopes
- Plant occurrence (incident/event) investigations
- Created and managed budgets for capital and revenue and expenditure projects

Courses and Publications

- Electrical Arc Flash Safety and the NFPA 70E (SAIEE CPD SAIEE-0710-V)
- Electrical Arc Flash One Day Course (SA, Namibia, Mozambique, US, Middle East)
- Presented Paper on Switchgear Failures – Marcus Evans 5th Annual Switchgears, Transformers and Generators Conference
- Presented Paper on Electrical Safety Training – Annual Anglo American Engineering Technical Division Symposium
- Presented Paper on Arc Flash Protection – IDC Power Cable and Switchgear Conference
- *An Introduction to Electrical Arc Flash Safety*, Zarheer Jooma (Pr. Eng), EE-Publishers Energize Magazine October 2009 (http://www.eepublishers.co.za/view.php?sid=18146)
- Key note speaker at the Predication Maintenance Conference (PdMSA) hosted by ABB and MARTEC
- *IEEE Transactions on Industry Applications* articles and IEEE Conference Publications:
  - "The Development of Questions to Determine the Effectiveness of the Incident Investigation Process for Electrical Incidents," 2015, Vol. 51, Issue 5.
  - "The Analysis of an Incident Investigation System," 2016, Vol. 52, Issue 6.
  - "Case History: Arc Flash Incident on a Locked out (LO/TO) 3.3kV Fused Contactor," 2016, Vol. PP, Issue 99 (Early Access Article)

Education

- Bachelor of Science, El. Eng., University of Natal (Durban Campus); 1999
  Major subjects: Power Systems, Power Electronics, Electrical Machines and Control Systems
- Master of Science, El. Eng. in electrical arc flash safety, University of Witwatersrand; 2017

Professional Licenses & Certifications

- Registered with the Engineering Council of South Africa (ECSA) as a Professional Engineer. Registration number: 20070061
- Senior Member, South African Institute of Electrical Engineers (SAIEE). Registration Number: 12294

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