# CEERISK Bridging the Gap

Mamoon Alyah, PE, CEng, MBA, IRMCert Managing Director, Principal Engineer CEERISK Consulting Limited



## Education

- Bachelor of Science in Electrical Engineering | KWT University, Kuwait- 1986
- Fire Inspector/Investigator Hennepin Technical College Minneapolis, MN, USA-1996
- Master of Business Administration (MBA) | Lake Forest Graduate School of Business, IL, USA- 2008
- Expert Witness Courses, Bond Solon Wimington Legal UK
- International Certificate in Enterprise Risk Management, IRM - UK

## **Professional Associations**

- Chartered Engineer (Registration No. 593908), Engineering Council, United Kingdom
- Professional Engineer (Registration No. 26809), Board of Architecture, State of Minnesota, USA in addition to registration in multiple states

#### Languages

- English: Fluent
- Arabic: Native Language

## **Contact Details**

E: <u>mamoon.alyah@ceerisk.com</u> D: +44 (0)207 0428 123

M: +44 (0)7495 737 005 Suite 144, 155 Minories

London, EC3N 1AD

### Summary

Over thirty (33) years of experience performing investigations of the root cause of major and complex losses involving electrical power equipment and installations in addition to various types of high-tech equipment in different applications.

Instructed as an expert witness to prepare expert reports and give evidence in court rooms, depositions (USA) and arbitration proceedings in numerous jurisdictions around the world.

Evaluated different types of equipment and systems including heavy machinery, hi-tech equipment, power generation, transmission and distribution, manufacturing, medical equipment, printing systems, consumer electronics and other.

Authored several articles published in leading industry periodicals such as Claims Magazine, NASP - Subrogator, PLRB – Frontline and CILA - Claims Focus newsletter. Also been a frequent lecturer on a variety of topics to different organizations such as the PLRB (Property Loss and Research Bureau), NASP (National Association of Subrogation Professionals), IAAI (International Association of Arson Investigators), IASIU (International Association of Special Investigation Units), NGLCA (Natural Gas Litigation and Claims Association), EEI (Edison Electric Institute – Claims Committee), CILA (Chartered Institute of Loss Adjusters) among others.

Experience

#### CEERISK Consulting Limited – London, UK Managing Director / Principal Engineer

- Conduct forensic investigations of the root cause and liability following catastrophic losses such as fires, explosions, machinery breakdown and workplace accidents.
- Perform engineering analysis and prepare expert reports in relation to disputes involving the use and application of electrical equipment and systems in numerous applications including power generation (conventional and renewable), transmission and distribution, infrastructure, large industrial plants in addition to commercial and domestic buildings.
- Act as an expert witness preparing giving evidence in compliance with rules of evidence in different jurisdictions and the ICC
- Provide engineering consultation on loss mitigation and prevention to utilities (public and private), contractors, manufacturers, large corporation and government agencies and municipalities in matters related to fire risks.
- Conduct engineering risk assessment of electrical and power systems including generation plants, HV/EHV transmission grids (substations), distribution networks, switchgear and distribution within buildings in addition to wiring systems and utilisation equipment in different buildings and occupancies.

#### LWG Consulting UK Limited – London, UK Director of Engineering

- Investigate complex losses with emphasis on cause and origin of incidents.
- Perform failure analysis and damage assessment of equipment.
- Investigate nature and extent of damage to large machinery and complex equipment including turbines, medical equipment, printing systems, large power systems and other types of equipment.

#### LWG Consulting – Chicago, USA Director of Engineering

In addition to engineering responsibilities, responsible for management of engineering research and analysis techniques; providing educational seminars to personnel of insurance companies and legal firms; supervising of client services and providing expert technical consultation to the engineering staff; in addition to responsibilities of Senior Technical Consultant.

#### Examples of Expert Witness and Engineering Investigations

- Fire and explosion in a 374-MVA power transformer in a transmission substation in California, USA. The investigation involved forensic testing and examination of HV bushing in Germany and tear down of the transformer in San Diego, California, USA.
- Explosion in a 345-kV (EHV) bushing in a generation substation in Connecticut, USA. The investigation involved analysis of claims that the design of the substation by a Korean EPC was defective. Following a 2-year investigation of damaged components, I prepared an expert report and testified in deposition for over two days presenting opinions related to the incident.
- Explosion and fire in a thermal power plant in Cairo, Egypt where a Hydrogen explosion was caused by blade liberation in a steam turbine. Expert report was prepared and used by the London Insurance market to determine policy liability
- Investigated a leak in a cold salt tank in a CSP (Concentrated Solar Power) plant in Morocco providing expert opinion related to the root cause and liability
- Testified at an arbitration proceeding concerning a construction dispute involving the supply and accreditation of switchgear and MCC assemblies specified for us at a district cooling plant in Abu Dhabi, UAE
- Investigated the root cause of a fire in HV switchgear assembly at a water desalination plant in Jeddah, KSA

#### Sample Speaking Engagements

- Root Cause Investigation of Engineering Claims Xchanging Learn at lunch Series, London, UK - June 2013
- Investigating Gas Turbine Losses
  Construction, Engineering and Energy SIG CILA
  Lloyd's Old Library, London, UK April 2012
- Investigating Power Line Incidents
  Edison Electric Institute Claims Conference, Alabama, USA 2008
- Investigation of Industrial Fires International Association of Arson Investigators, 58th Annual Training Conference, Vancouver – Canada 30/4 – 4/5, 2007
- Investigating Stray Voltage Claims Natural Gas Claims & Litigation Association Conference, San Diego, CA – March 26-29, 2006

- Investigated and provided expert evidence at jury trial in court regarding injury to construction worker as a result of failure of a 66-kV cable in Minnesota, USA
- Investigated and prepared expert report regarding a steam turbine failure at a geothermal power plant in Jakarta, Indonesia
- Performed risk assessment of the transmission grid in Hashemite Kingdom of Jordan in the Middle east preparing a detailed study of the risk of failure in transmission and distribution substations across the country
- Acting as a expert providing expert reports in relation to a dispute involving the supply of towers to a wind turbine farm in West Australia
- Prepared an expert report regarding a fire and explosion in capacitor banks used at a newly constructed wind turbine power plant in Republic of Ireland
- Prepared expert report regarding an electrical failure in a switchgear assembly at a TV production facility in Leeds, England.
- Investigated prepared an expert report related to electrical failure in a utility's substation in a high-rise building in Chicago, USA
- Investigated the root cause of a fire in a VAR-Compensator used at a solar power plant in south Jordan to improve power quality before connection to the EHV transmission substation
- Engineering Losses: An Analysis of the response of Manufacturers' Guarantee vs. an EAR Policy's Maintenance Period
- CILA Construction Energy and Engineering Special Interest Group, London, UK October 2014
- Investigating Warranty Reinstatement CILA Annual Claims Conference, Manchester, UK – September 2014
- Challenges of Investigating Turbine Losses CILA Annual Claims Conference, London UK – September 2013
- Root Cause Investigation of Engineering Claims Xchanging Learn at lunch Series, London, UK - June 2013
- Root Cause Investigation of Transformer Failures
  CEERISK Consulting Engineering Webinars, London, UK