

Robert Thomas Magnotta | Electrical Forensic Engineer, MSEE

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Professional Summary:

Mr. Magnotta has twenty-five years of engineering experience. He started his career as an Electrical Engineer, where he designed, programmed, and commissioned industrial control systems. Mr. Magnotta also has 11 years of experience with electrical power generation while employed at a nuclear power plant. He was responsible for digital process control devices, PLCs, plant process networks, and cyber security at the PPL Susquehanna Nuclear Power Plant in Berwick, PA. Mr. Magnotta is a Navy Reservist and has specialized training in the area of shipboard systems. Since 2013, Mr. Magnotta has conducted Forensic Analyses for Electrical Engineering field investigations including, but not limited to:

- Appliance failures
- Commercial and residential wiring
- HVAC failures
- PLC control systems
- Vehicles and boats

Licenses and Certifications:

Professional Engineer, PA, PE061025

Professional Engineer, DC, PE920749

Professional Engineer, DE, 21883

Professional Engineer, MD, 52056

Professional Engineer, WV, 22919

Professional Engineer, VA, 0402058853

Professional Engineer, CT, PEN.0033115

Professional Engineer, NY, 099385

Professional Engineer, NJ, 24GE05453100

Project Experience:

PPL Susquehanna, LLC, Berwick, PA Plant Process Computer Replacement

Mr. Magnotta was the technical lead on a multi-million-dollar plant process computer replacement project. The scope of the project was computer hardware, networking infrastructure, and software upgrades. New power requirements, mounting requirements, factory and site acceptance test procedures, and installation instructions were all within the scope of the project.

PPL Susquehanna, LLC, Berwick, PA
Cyber Security Upgrade

Mr. Magnotta was a key member of the team responsible of implementing a NRC required cyber security upgrade to all process control equipment within the power plant. New equipment had to be specified and all design and installation for the equipment was developed. Numerous procedures and instructions were also developed for this project.

Techniserv, LLC, Berwick, PA
Control System for Hershey Chocolate

Mr. Magnotta was the principle engineer for the design and control system implementation for a new candy production line for Hershey Chocolate. The scope of the work included specifying all controls and instrumentation, control panel design, power requirements, PLC and instrumentation programming, and start up.

Professional Experience:

EFI Global /Unified Investigations & Sciences/Electrical Forensic Engineer, August 2017 – Present
IEI Consulting/Electrical Engineering Consultant, July 2014-August 2017
Rimkus Consulting Group/ Electrical Engineering Consultant, July 2013-July 2014
US Navy/Electrical Engineering Instructor USNA, August 2011 – July 2014
PPL Susquehanna, LLC/ Senior Engineer, July 2000-July 2011
Deadsolid Simulations/Electrical/Software Engineer, October 1997-July 2000
Techniserv, Inc./ Electrical Project Engineer, July 1996-October 1997
TJ Cannon, Inc./ Electrical Project Engineer, October 1994 – July 1996

Specialized Education:

- Fire Findings, LLC
 - Investigation of Gas & Electric Appliance Fires, 24 hours (tested)
- International Association of Arson Investigators (IAAI) – CFITrainer.net
 - Arc Mapping Basics, August 2017, 4 hours (tested)
 - The Scientific Method for Fire and Explosion Investigation, August 2017, 3 hours(tested)
- RedVector
 - Electrical Characteristics of Conductors, September 2017, 3 hours (tested)
 - Uninterruptible Power Supply (UPS) System Efficiency, September 2017, 1 hour (tested)
 - Microgrid Essentials, September 2017, 1 hour (tested)
 - Ethics for the Practicing Engineer - Organizational Issues, September 2017, 1 hour (tested)
 - Fire Essentials and Fire Science, September 2017, 1 hour (tested)
 - Microgrids and the City, September 2017, 1 hour (tested)
 - 2017 NEC Changes: Special Equipment, September 2017, 1 hour (tested)
 - Electric Motors, September 2017, 1 hour (tested)
 - Past, Present and Future of Building Energy Codes and DOE Appliance Mandates, September 2017, 2 hours (tested)
 - 2017 NEC Changes: A New Process and Five New Articles, September 2017, 1 hour (tested)
 - Building Performance: Design Through Operations, September 2017, 1 hour (tested)
 - 2015 NFPA 70E® - Significant Changes, September 2017, 1 hour (tested)
 - ADA Guidelines 2010: Communication Elements and Features , September 2017, 1 hour (tested)

- PDH Center
 - A Guide to Electrical Safety, September 2017, 6 hours (tested)
 - Board Rules for Practicing Engineering, September 2017, 2 hours (tested)
 - Electrical Design – Lightning and Static Protection, June 2015, 2 hours (tested)
 - Electrical Transmission Grid, July 2015, 3 hours (tested)
 - Ethical Issues in Forensic Engineering, July 2015, 2 hours (tested)
- Failure and Damage Analysis, Inc.
 - Electrical Power supply and distribution, August 2015, 15 hours (tested)
- Navy Training
 - Shipboard Systems Engineering
 - Damage Control
 - AN/ARC 159(V) Transceiver
 - Corrosion Control
 - Aviation Electronic Technician Class A1

- PPL Susquehanna
 - Power Generation and Distribution
 - Nuclear power plant safety systems and core protection
 - 50.59 screening and evaluation
 - Plant modifications
 - Root cause and apparent cause analysis

Education:

Masters, Electrical Engineering, Wilkes University, Wilkes Barre, PA, 2001

Affiliations:

National Fire Protection Association (NFPA)

National Academy of Forensic Engineers (NAFE)

Courses Instructed/ Guest Lecturer:

During a 3-year recall to active duty, Mr. Magnotta was an instructor for the following courses at the US Naval Academy:

- EE301 – Electrical Fundamentals and Applications
- EE302 – Electronic Communication Systems and Digital Communications
- EC310 – Applications of Cyber Security

* Litigation CV available upon request.