Ethan Atsinger

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Electrical Engineer

Bachelors of Science – Electrical Engineering University of Illinois - Champaign Urbana

Registration: Engineer in Training

CAREER GOALS - Become a member of a team involved in work that will challenge me and expand my technical and analytical skills as well as provide avenues to bolster my managerial and interpersonal skills.

WORK HISTORY

2/15/2006 - Present Steel Dynamics Inc Columbia City, Indiana Electrical Engineer / Meltshop Electrical Supervisor: (2) - 120 Ton EAF's, (1) 3 - Strand Caster, (1) Bag House

- Direct reports of 11 plant staff including; 9 electricians, and 2 bag house operators.
- Planned electrical work for scheduled maintenance downturns and outages.
- Managed electrical contractor work during shutdowns and special projects.
- Tuning of operating parameters for 3-Phase 120MVA Electric Arc Furnace (EAF) with AMIGE Regulator.
- Responsible for maintenance, repair, and installation of diverters and load tap changers and review of the oil sampling testing data for the 2 - 120MVA EAF Transformers.
- Responsible for maintenance, repair, and installation of 34.5kV Furnace Switch (PACS) breaker, Motor Operated Disconnect (MOD), and Electrode Arm-Furnace Transformer Connection (Delta Closure)
- Responsible for maintenance and repair of Ladle Metallurgy Furnace (LMF) transformers, Delta Closures, and 34.5kV breakers.
- Monitoring power prices and the expected flows on the MISO and PJM grids to better plan for expected spikes in power pricing.
- Working with multiple engineering firms on electrical issues with the facility expansion projects, including a bag house expansion, 4th strand add-on, new caster, and future operational considerations for operating 2-EAF's simultaneously.
- Started a software control program to manage the use of software jumpers and their timely removal after repairs have been made.
- Responsible for the maintenance of the bag house emissions monitoring system (CEMS), scheduling repairs, and yearly compliance testing.

Experience Highlights:

- Familiarity with voltages from 345kV, 34.5kV and 12.47kV subsystems to 480V and below.
- Implementing a PPE program including an insulated hand tools purchase for all the facilities electricians to comply with Arc Flash regulations.
- Repaired damaged Delta Closure systems including insulation and support systems and stocked proper parts for future repairs.
- Set up for complete 4080 bag change for entire bag house, including contractors, materials, equipment and disposal plan.

Electrical Engineer: WKE - Coleman Station - 3 Unit (450MW) Generation Station

- Electrical Engineering support for the start up of a Flu Gas Desulphurization unit (FGD). Relay setting oversight using ETAP Software. Drawing review, project review and assistance during the construction and start up.
- Preparation, scope review, and design support for 3 week outage on Unit 3, including the replacement of A-Side 4160V Switchgear, Complete Unit-3 Battery replacement, replacement of 2 Motor Control Centers.
- Complete installation and commissioning of a 10 MVA Start-Up Transformer (12.47kV/4160V) after a rebuild, including witnessing factory acceptance test, onsite acceptance testing review and project management oversight.
- Emergency Generator (400kW) installation with feeders distributed to 6 Motor Control Center additions for critical loading. Create Specs for bids on the generator and oversight of separate bids for feeder and MCC additions.
- Completed a preliminary assessment of station transformers with existing data and put together a 5-year testing and maintenance plan of the stations transformers based on condition, ranging in size from 10 MVA to 192 MVA.

Experience Highlights:

- Completed the start-up and commissioning of a dual fed 12.47kV switchgear and all its associated breakers including the adjustments in relay settings for synchronization of the parasitic and utility feeds.
- Complete status of facilities oil filled transformers both existing units and newly installed and organized the relevant documentation of the data.

01/05/04 - 10/23/05

NI Industries Inc.

Riverbank, California

Electrical Engineer: Riverbank Army Ammunition Plant (RBAAP), Department of Defense Owned Contractor Operated Facility (GOCO) (BRAC Commission voted to close in the Fall of 2005)

- Specified projects for US Army approval for the Maintenance of Laid Away and Inactive Facility (MLIF) Contracts.
- Used EDSA Technical 2004 to conduct a full fault and Arc Flash study of the facilities electrical system down to 480V, required updating an aged single-line diagram, running the fault study, and device coordination of the facility electrical devices.
- Specified and oversaw the installation of an upgraded Security Camera system, utilizing a Digital Video Recorder with a Fiber Optic Communications cable for added reliability and security and set up training for security personnel.
- Specified and oversaw the construction of a 13.8kV/480V 2500kVA substation and 480V distribution for a new tenant.
- Specified and oversaw the construction of new 13.8kV Circuit Feeding 4 substations, utilizing a 15kV armored cable / cable-tray solution, while not disturbing the existing service that was in need of replacement.
- Assisted in the design of a pothead replacement that utilized newer technology for splices and connections at 15kV to save the costs of a complete circuit replacement.
- Looked for and implemented practical solutions to the problem of maintaining some aged electrical equipment.
- Determined through yearly transformer oil testing which transformers needed further maintenance. Created a facility wide assessment and database of the conditions of the transformers including the dielectric, paper insulation, and acid content of these units some of which are 50 years old and still in functioning without damage.
- Developed a program to migrate the facility to the purchase of an environmentally friendly (Green) transformer design versus the dry-type solution including considerable cost savings.
- Worked with Hetch Hetchy Power Co. and MID (Modesto Irrigation District) on utility coordination for shut downs and switching of the Main 115kV Lines that feed the RBAAP.
- Assisted with the electrode design for the plating unit rack for the Navy's 155mm Advanced Gun System cartridge case for the DDX Destroyer.

Experience Highlights:

- ✓ Scope of Work (SOWS).
- Computed cost estimates using RSMeans and other methods for job proposals.
- ✓ Arc Flash Hazard Analyses
- ✓ Generated Dig and Energized Work Permits.
- Upgraded the existing PowerNet system to track of utility costs for tenants on the facility.
- Directed and coordinated operations, maintenance and installation of electrical distribution equipment.
- Responsible for the maintenance, testing, and general good health of over 22 13.8kV/480V substations ranging in size from 1000kVA to 5000kVA.
- Responsible for the maintenance, testing, and general good health of a 20 MVA 115kV/13.8kV High Yard.
- Familiarity with Induction Heating.
- Present Army with detailed plans on the electrical needs of the facility over the next few years.
- Substation grounding and grid design.

AK Steel - Rockport Works

Rockport, IN

Electrical Engineer: Continuous Pickle Line (CPL)

- Designed code in PLC that resulted in over \$ 3 million dollars of savings in 9 months by reducing the amount of scrap loss to significantly improve yield percentages.
- Designed code in PLC that doubles the life of Brush rolls, saving a significant amount of money in a short period of time.
- Programming in the ALSPA MT-80 PLC using the OVERVIEW GEMCAD language.
- Troubleshooting operational problems on process line using GEMCAD and Overpower.
- Improvements of the sensor packages on process line used for strip tracking by utilizing multiple signals to increase reliability and performance.
- Preventative Maintenance Program for the process line UPS systems and motor shaft grounding brushes due to excessive corrosion.
- Design of 13.8kV equipment protective building due to highly corrosive environment.
- Design of coil-heating solution to prevent problems due to weather conditions.
- Designed method of backup and full restoration of OS/2 systems.
- Designed lighting improvements for both process lines to help operations staff perform work safer and more efficiently.
- Cost reduction through equipment standardization.
- Confidential assignments at coke producing facility in Ashland Kentucky and Butler Works facility in Butler PA.

Experience Highlights:

- Experience with x-ray, optical, and magnetic instruments and their operation
- Experience with Local and Remote I/O Systems including Alspa 80 series and VME local I/O systems and FIP and TCP/IP Control Networks
- Experience with the Alspa 80-MT V2 PLC, the GEM80 400 series processor and GEMCAD. Plus experience with the other programs used in ALSTOM package including OVERVIEW Version 4, Global Variable Management (GVM), LogiCAD, the Intellusion HMI system, and Overpower Monitoring Systems.
- Experience with low and medium voltage electrical distribution systems.
- Alarm SCADA generation for a process line via the HMI system.

1/99 - 8/00

Stanley Consultants, Inc.

Muscatine, IA

Electrical Engineer: IUI Central - Plant Electrical Department

- NEC Telecom Communications design in Egypt.
- Abbott Labs Chiller Design Project in Chicago ILL.
- US Army Corps of Engineers Flood Control Project in Kissimmee FL.
- University of Illinois at Chicago Cogeneration design in Chicago ILL.
- Muscatine Power and Water Fuel Conversion Project in Muscatine IA.
- Alexandria Municipal Wastewater Design project in Egypt.
- Citizens of Sun Village in Phoenix AZ.
- Alliant Utilities Power System Modeling for the city of Fairfield, IA.
- Colorado Department of Human Services NEC Audit in CO.
- Indiana State University Power Plant Design in Terre Haute IN.
- Steam Tunnel Power Distribution work at the University of Illinois in Champaign

Experience Highlights:

- Design of lighting, fire alarm, power and grounding systems, conduit layouts, lightning protection, temporary power, wire/equipment terminations.
- Experience with blueprint design procedures, specification generation, design calculation procedures, shop drawing review procedures, the National Electric Code, National Fire Protection Association, Job Safety and OSHA Regulations.
- Design of low and medium voltage electrical systems.
- Extensive experience with diverse software packages.

3/91–2/95 Various Electrical Contractors Midwest, USA

Industrial Electrician:

- CINergy Maintenance Project at Gibson Generating Station in Owensville, IN.
- Eli Lilly Pharmaceutical Construction Project in Lafayette, IN.
- Dow-Elanco World Headquarters Construction Project in Indianapolis IN.
- Meijer's Stores Construction Projects in Indianapolis IN.
- Polaris Amphitheater Construction Project in Columbus, OH.
- Meridian Insurance Headquarters Construction Project in Indianapolis, IN.
- Federal Express Hanger Construction Project in Indianapolis, IN.
- PSI Precipitator Construction Project at Gibson Generating Station
- North American Stainless Steel Construction Project in Carrolton, KY.
- Public Service of Indiana Maintenance Project Gibson Generating Station
- Public Service of Indiana Maintenance Project Gibson Generating Station

Experience Highlights:

✓ Installation of lighting systems, power systems, conduit layouts, lightning protection, temporary power, various automation sensors, fire-alarm systems, wire/equipment terminations, installation of grounding systems including exothermic welding techniques.

12/86-5/87 <u>United States Navy</u> (E-3)

• Nuclear Machinists in training, Honorable Discharge (due to family hardship conditions).

ACHIEVEMENTS AND CONTINUING EDUCATION

Electric Arc Furnaces & the Meltshop	(20+hours)	2007
(AEP) High Voltage Safety Training	(16 hours)	2006
Arc Flash Safety Training	(16 hours)	2006
Introduction to Allen Bradley PLC's and RS Logix	(8 hours)	2005
Short Circuit Analysis of Electrical Power Systems S&C Electric	(12 hours)	2005
Distribution Overcurrent Protection and Coordination S&C Electric	(18 hours)	2005
EDSA Technical 2004 Design Training	(24 hours)	2005
High Voltage Electrical Safety NTT	(14 hours)	2004
Transformer Maintenance Institute	(24 hours)	2004
AutoCAD Raster Design	(8 hours)	2003
Process Line Training	(30+ hours)	2002
ALSTOM MT-80 PLC	(100+ hours)	2001
Hazmat Training	(8 hours)	2001
Siemens S-5 PLC	(32 hours)	2001
OSHA regulations Class	(40 hours)	2000
NEC 99 Code update Class NTT	(21 hours)	1999
Grainger Award for Excellence in Power Engineering		1999
3M High Voltage Seminar, Reading Harmonics with Meters		1994
Fire and Life Safety, Slab Layout Course, HILTI Power Tools		1993
Blueprint Reading, Basic Fire Alarm Principles		1993

(Professional References upon Request)