

Square D Services

Energy Efficiency Seminar

December 3, 2008

Mike Bodinet

West Area Sales Mgr.

Mike.bodinet@us.schneider-electric.com

Alberto Nebel

Senior Sales Eng.

alberto.nebel@us.schneider-electric.com

Don House

Exec. Sales Eng.

donald.house@us.schneider-electric.com

www.squared-services.com



Square D Services

What keeps you awake @ night??



Square D Services

What we'd like you to remember:

We can:

- Test
- Maintain
- Repair/replace/refurbish/retrofit
- Add to
- Modify
- Upgrade

Virtually any manufactures electrical distribution products!!



U.S. Services Organization

475 Service Technicians
55 Engineers
100+ Services Sales Engineers
26 US Locations
4 Manufacturing Facilities
22 Sales Representative Firms
1 Parts Depot Facility
1 Industrial Electronic Repair Facility

Over 900 Services Employees Nationwide



Square D Services

Square D Services = Solutions

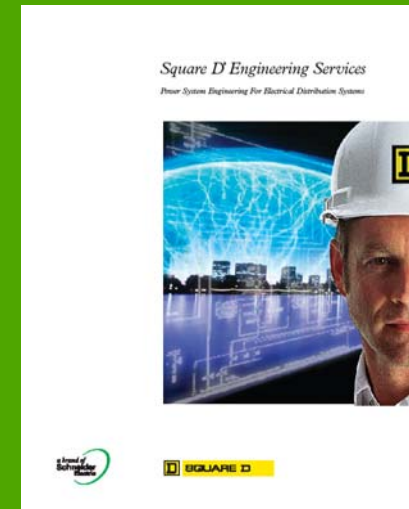


Engineering Services



Square D Services

- Arc Flash Analysis
- Harmonic Assessment
- Power Quality Analysis
- Power System Design
- Short Circuit and Coordination Study
- Circuit Loading Study



Electrical Distribution



Square D Services

- Equipment Start-up and Commissioning
- Direct Replacement/Retrofill Circuit Breakers
- Breaker Reconditioning
- MCC Bucket Replacement/Upgrade
- Add-on Equipment
- Custom Equipment
- Preventive Maintenance and Testing
- Equipment and Safety Training
- Turnkey Services



Custom QED-2 Switchboard



- **Customer:**
 - Dupont – Fabros. New Jersey, Virginia & Santa Clara sites.
- **Project Description:**
 - Provide custom QED-2 Switchboard for Distribution to the Servers for 312 bays.
- **Solution:**
 - QED-2 Switchboard from Columbia.
 - Custom integration wiring & I-line CB covers (designed by WC Engineering).
 - Wiring routed through wiring ducts, utilized Phoenix (insulation displacement) wiring terminal blocks & custom wiring harnesses built in WC.
- **Added:**
 - Sequence of events recorders
 - PowerLogic CM4000 monitors



Custom QED-6 OEM Sections



- **Customer:**
 - Piller – Dupont.
- **Project Description:**
 - Provide QED-6 OEM Sections for UPS control cabinets for 32 bays.
- **Solution:**
 - QED-6 Switchboard from Columbia.
 - Customer supplied components (PLC's, relays).
 - Custom integration wiring – color coded; ferraled wiring terminations.
 - Custom ribbon cables for PLC's.
 - Full height steel panels were wired then installed into sections.
 - Approx. 3000 terminations/bay.



MV Match-n-Line



- Customer:

- Central Hudson

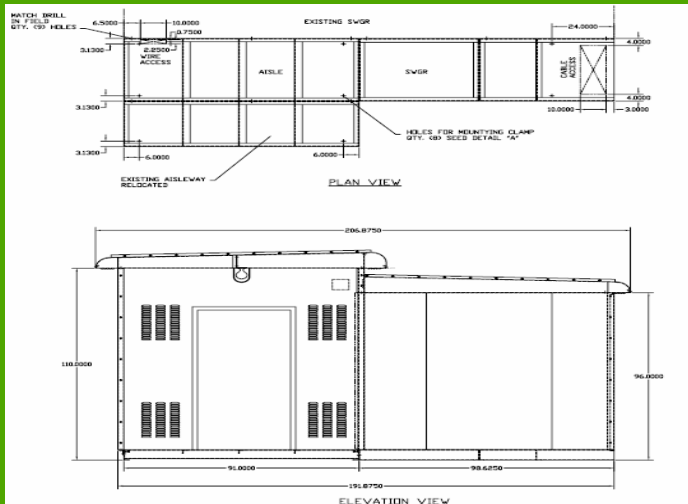


- Project Description:

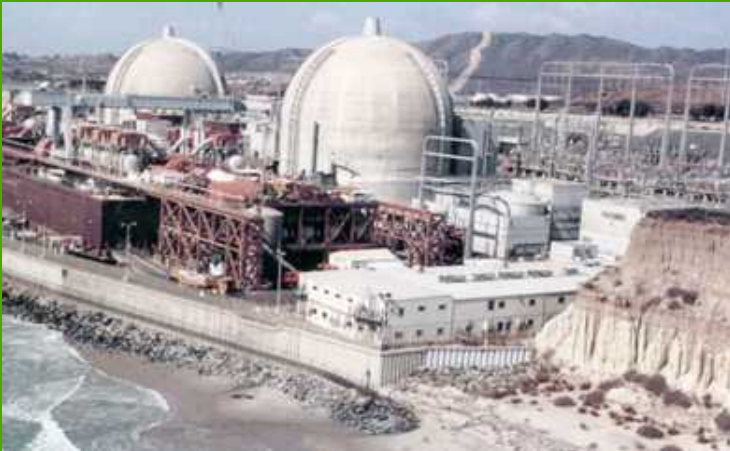
- Add one additional feeder section to existing McGraw Edison Outdoor House (No longer a current manufacturer)
- Use customer specified breaker and relaying scheme

- Solution:

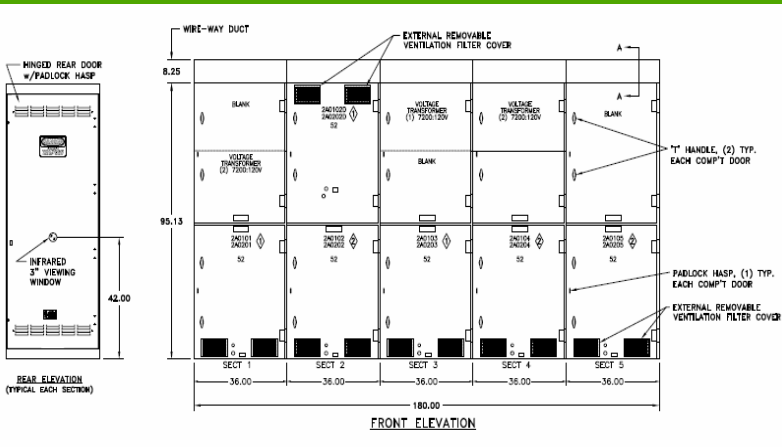
- Provide a custom built outdoor house (not Metal Systems)
- Utilize a refurbished McGraw Edison 5kV type WSA switchgear section
- Supplied an Eaton vacuum replacement breaker (hard spec'd to match the customer's other breakers)
- Supplied custom relaying package (SEL) to match Central Hudson's system



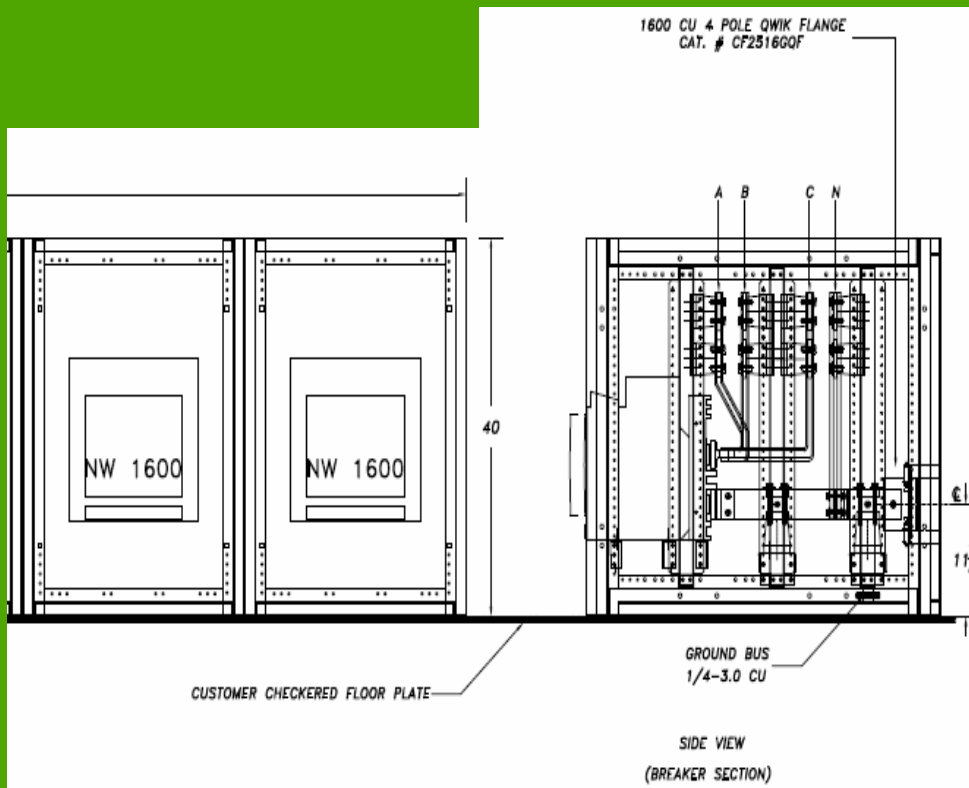
MV Metalclad



- **Customer:**
 - San Onofre Nuclear Generating Station (SONGS) – Southern Cal Edison
- **Project Description:**
 - Provide reduce depth Square D Masterclad VR5 Switchgear to match existing gear footprint
 - Each vertical section to ship in (2) pieces: Front Half and Rear Half. This enabled SONGS to lower the gear through maintenance hatches in the power plants floor
- **Solution:**
 - Reduced depth by 4” – Limited customer to single high construction
 - Custom designed / manufactured cable section. This allows each vertical section to ship in a front and rear half
 - Custom relaying / controls scheme to meet Nuclear 1E standards



LV Switchgear



- **Customer:**

- New United Motor Manufacturing, Inc (NUMMI)

- **Project Description:**

- Provide reduced height (40") LV Switchgear to fit on an existing cat walk

- **Solution:**

- Custom designed switchgear
- Utilize Masterpact NW Circuit Breakers
- All loads exit rear via quick flanges



Custom Engineered Solutions



- **Customer:**
 - U.S. Navy – MUSE (Mobile Utility Substation Equipment)
- **Project Description:**
 - Refurbish various substations. First Unit was 500 KVA.
- **Solution:**
 - Modernized & upgraded aged substation.
 - Partnered with West Coast Switchgear & Delta Star Transformer.



ECP Construction Services



Reed Substation



Square D Services

Questions??



Automation and Control



Automation and Control

- Electronics Repair (www.elsouth.com)
- Network Services
- Legacy PLC Upgrades
- Legacy Drive Upgrades

