
Black & Veatch's 138kV/13.8kV Substation Design Project

SDMay18-06

Faculty Advisor: Dr. Ajjarapu

EE 491 Weekly Report 6

Date: 3/24/2018 to 4/6/2018

Andrew Brown	-AutoCAD Director, Design Engineer
Eric Fritz	-Meeting & Communication Director, Test Engineer, Design Engineer, Quality Assurance
Brent Hines	- Project Lead, Materials, Executive Budget lead, Design Engineer
Gavin Christensen	-Chief Design Engineer
Weng Hoong Loo (Terry)	-Scheduling, Design Engineer

Summary of Progress this Report

In our meetings we emphasize safety through continuing education. We rotate through our team and each week one person presents on an issue they deem important. For our safety moments during our meetings this past two weeks, we covered food safety and workplace safety.

As of now, we have completed all the diagrams and our final design document, and are awaiting to receive them from Black & Veatch's final review of our work. We have also begun reading through the manuals for our selected relays in order to devise how they will be set up for overcurrent protection and control over opening and reclosing in case of a fault. Finally, we have begun creating our presentations both for the second PIRM meeting and for the final end of semester review.

Pending Issues

We will be completing the second PIRM presentation for our meeting next Thursday as well as making any final changes to our set of documents after receiving constructive criticism from Black & Veatch.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Andrew Brown	Reviewed data sheets for relays to gain an understanding of how they would be implemented, started work on second PIRM presentation, reviewed final design document.	20	151
Gavin Christenson	Reviewed scope documents and SEL website for understanding on relays. Made final changes to documents and exported them to PDFs for full review by client.	15	147
Eric Fritz	I recorded the details of the meeting with Black and Veatch and reported them in the prescribed bulleted format. Started work the final design document and made small changes to the drawings before the first submission	14	179
Brent Hines	Reviewed all protection and control schematics to present to Black and Veatch. Started work on the second PRIM presentation, finalized the final version of the design document.	16	196
Weng Hoong Loo	Reviewed and did final changes to all drawings to	16	152

(Terry)	ensure consistency with the scope given as well as well working on the PRIM presentation before submitting it to client for final checking.		
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Plans for Coming Weeks

After Black & Veatch has completed their final review of our document set, we will make final corrections from their constructive criticism. Ideally, after these final corrections, we should have a complete, errorless, comprehensive set of drawings for the overcurrent protection of our substation. After that, we will continue reading through the datasheets for the various relays and other components to get an idea of how they will be programmed after the overcurrent protection is set up.