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

SDMay18-06

Faculty Advisor: Dr. Ajjarapu

EE 491 Weekly Report

Date: 11/23 to 11/29

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

- The first drafts of the control house panel layout, control house cable tray, control house lightning layout, panel elevation panel 1, panel 3 elevation, panel 4 elevation, were submitted.
- A design document database was created to log completion status, and relate unofficial names to the drawing number e.g. 1806-110 to the key-protection plan. The document also tracks completion progress, and who edited and reviewed the document.
- We continued to work on solving the 2 calculations.
- We created the first draft of our final presentation.

Pending Issues

- Continue work on the final presentation and
- Finish the calculations assigned by Black & Veatch.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Andrew Brown	Revised diagrams for communication panel and back-up relays. Revised calculations for substation max power capacity and control house max AC/DC current with Brent Hines. Made slight revisions to final presentation.	9	90
Gavin Christenson	Continued to assist the group in changes for the panel diagrams along with preparing for the final presentation.	7	85
Eric Fritz	I created a comprehensive design document database that contains not only all the diagrams that have and need to be created, but also who edited, and reviewed them along with the date of completion, completion status and type of drawing. Prepared the meeting agenda comprised of questions needing to be answered, along with the documents that we will discuss. Recorded the details of the meeting with Black and Veatch and reported them in the prescribed bulleted format.	12	84
Brent Hines	Finalized team website, Revised the primary relay document as well as finalizing the panel documents. Revised calculations for substation max power capacity and control house max AC/DC current with Andrew Brown.	12	100

Weng Hoong Loo (Terry)	Produced slides for the final presentation that depicts our overview, progress and challenges that we have been facing for the project as a whole up to now. Assisted with the panel arrangement design.	7	95
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Plans for Coming Week

- Continue work on the final presentation and give a practice presentation to B&V, on 11/30/2017, to improve and streamline it.
- Finish the two calculations.