8EE 491 Weekly Report 3

Date: 9/21 - 9/27

sdmay18-06

138kV/13.8kV Substation Design Project

Client: Black & Veatch
Faculty Advisor: Dr. Ajjarapu

Team Members:

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

Summary of Progress this Report

- Continued to find the differences between the one line diagram and the key protection plan.
- The key protection plan was updated to agree with the one line diagram.
    - These differences were found in a variety of locations.
    - Easy changes were done this week, including transformer rating changes, power regulations changes, renamed appropriate busses, and deleted unnecessary components.
    - Scheduled to be completed by October 19, 2017
- In working on the diagrams our team better learned how to use AutoCAD.
    - An info session to get a better understanding of AutoCAD will be offered later in the semester, which we will all attend.

Pending Issues

- Keep updating the key protection plan
- We will need to improve the documentation of the diagram revisions. This will be done by adding:
    - Adding revision clouds

- Version numbers and append ‘R’s.
- The editor’s initials.
- The due date to the date issued blank of the document.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Andrew Brown	Weekly meetings. Project Plan	8	17
Gavin Christenson	Weekly meetings. Compared key protection, and one line diagrams	4	10
Eric Fritz	Weekly meetings. Wrote weekly report 1,2, and 3	5	13
Brent Hines	Weekly meetings, learned team website design, posted group bios, project description, weekly reports and compared key protection, and one line diagrams	10	16
Weng Hoong Loo (Terry)	Weekly meetings, compared key protection and one line diagrams	4	11

Plans for Coming Week

- More in-depth changes of the Key Protection Diagram will be made next week.
    - Specifically we will look into the more complex changes not referenced in the one-line diagram.
- Create a sheet containing all the ANSI numbers to the components that will be a part of the design.
    - This ANSI cheat sheet has over 90 components, with about 40 of them appearing in our substation diagrams.
- This next week we will learn the variety of devices included in the one-line and key protection plan.
    - These devices will be discussed in detail in the ANSI cheat sheet.