

## EE 491 Weekly Report | May15-01 | Week 10 (11/10/14 -11/17/14)

**Advisors:** Adam Literski, Dr. Ajjarapu

**Client:** Black & Veatch Corporation

**Members (roles):** Matt Backes (Team Leader), Ryan Jerve (Communications Leader), Faran Malik (Communications Leader), Sohail Suryavanshi (Webmaster), Bhargav Gouni (Key Concept Holder), Kiran Rane (Key Concept Holder)

**Project Title:** 69kV / 12kV Substation Design Project

### Weekly Summary:

This last week we met as a group on 11/11 and discussed some of the individual work that we have been working on. We discussed the 3D printing cost for our physical layout model, the key protection model, and the low side and main breaker designs. We also discussed the new draft of our project plan. During our advisor meeting, Adam and Josephine advised us to begin the panel layout drawings. We aim to finish the panel layout drawings by dead week.

### Meeting Notes:

#### 11/12 Group Meeting with Advisors

Before the meeting, we sent an email to Adam and Josephine with the final key protection drawing and the individual protection relays that some of our team members have been working on. During the meeting, Adam and Josephine praised Bhargav's work on the key protection diagram. Ryan and Faran continued working on the DC low side breaker scheme and started the AC scheme as well. Adam and Josephine advised our group to begin the panel arrangement drawings, because knowing the connections on the panel will make the breaker schemes much easier. Bhargav, Faran, and Ryan are working on the panel arrangements.

#### 10/11 Group Meeting

During our weekly team meeting (led by Faran), we went over each member's work. Kiran and Matt were finishing the second draft of the project plan and asked the other team members to review it. Bhargav found the cost for 3D printing so we could report it to Black and Veatch. Black and Veatch is sending us their company polos. Bhargav finished the Key Protection drawing and sent it to Adam and Josephine. Faran and Ryan showed the progress on their drawings and made a list of questions for Adam and Josephine. The following are the individual tasks that each person needs to work on during this next week:

- 1.) Sohail and Matt: Work on main breaker schematic, panel arrangement drawings.
- 2.) Kiran and Bhargav: Panel arrangement drawings
- 3.) Ryan and Faran: Panel arrangement drawings

### Pending Issues:

1. Continuing the entire design process
2. Begin panel arrangement drawings
3. Dividing up tasks for final presentation
4. Design document second draft
5. Have the panel drawings finished by dead week.

### Plans for Next Week:

Tasks for each team member:

- 1.) Sohail and Matt: Finish adding new terminals to main breaker, work on panel arrangement drawings
- 2.) Kiran and Bhargav: Work on panel arrangement drawings
- 3.) Ryan and Faran and Bhargav: Work on panel arrangement drawings

**Current Individual Contributions**

- Matt Backes: Attended weekly meetings. Finalized draft of project plan. Added lockout contacts and outputs. (7 hours)
- Faran Malik: Attended weekly meetings. Worked on weekly report. Began work on panel arrangement drawings. Worked on DC low side breaker scheme. (6 hours)
- Ryan Jerve: Attended weekly meetings. Worked on weekly report. Worked on AC and DC low side breaker scheme. (6 hours)
- Sohail Suryavanshi: Attended weekly meetings, finished adding terminals to backup relay. (3.5 hours)
- Bhargav Gouni: Attended weekly meeting, finished key protection diagram, began work on panel arrangement drawings. (4 hours)
- Kiran Rane: Attended weekly meetings, finalized project plan, worked on panel layout drawings (3.5 hours)

**Total contributions for the project:**

- Matt Backes (53.5 hours)
- Ryan Jerve (47 hours)
- Faran Malik (47 hours)
- Kiran Rane (45.5 hours)
- Sohail Suryavanshi (45.5 hours)
- Bhargav Gouni (47 hours)