

## **EE 492 – sdmay19-26**

# **115kV / 34.5kV SOLAR POWER PLANT/SUBSTATION DESIGN PROJECT**

## **Week 4 Report**

*Monday (2/4/2019) – Sunday (2/10/2019)*

*Client: Black & Veatch*

*Advisor: Venkataramana Ajjarapu*

*Team Email: sdmay19-26@iastate.edu*

### **Team Members:**

Katayi Katanga

Nur Shuazlan

Yao Cheah

Chufu Zhou

Tam Nguyen

### **Weekly Summary:**

This week, we had one meeting with our client, Black and Veatch. In our meeting with the client, we presented the changes on back up relay drawing and DC Aux schematic. Also, we had a few questions on the Bank 1 Ann and Distributed I/O Board drawings. Then, we continued working on the drawings that we had questions and started working on some new drawings.

### **Summary of Client meeting:**

- Nur did safety moment about hearing safety.
- Then, we discussed the updates on the drawings:
  - Kat went over changes to back up relay drawing.
  - Nur asked about the things she deleted in the DC auxiliary schematic.
  - Tam asked more questions concerning bank ann after the team realised that we would want to keep the connections we had previously deleted, shout out to Kat for pointing this out.
  - Kat, Nur and Tam then asked questions about how to make proper connections in the BU relay drawing, Cole and Patrick said they are busy with real work and would not be able to look at these drawings until spring break.
  - Patrick requested that the team send in .dgn files in the event that pdfs of drawings can not be sent.

### **Past Week Accomplishments:**

#### **Katayi Katanga**

- Completed the Back-up protection diagram.
- Check comm outside diagram.

#### **Nur Shuazlan**

- Worked on the DC Auxiliary diagram.

- Checked comm outside diagram.

**Yao Cheah**

- Completed the comm outside diagram.
- Checked Back-up protection diagram.

**Chufu Zhou**

- Worked on Distributed I/O Board.

**Tam Nguyen**

- Worked on Bank 1 Annunciator diagram.
- Checked Back-up protection diagram.

**Pending Issues:**

- Waiting for feedback from the client regarding the drawings.

**Plans For Next Week:**

**Katayi Katanga**

- Work on AC Auxiliary diagram.
- Check DC Auxiliary diagram, Distributed I/O Board, and comm rtu diagram.

**Nur Shuazlan**

- Work on DC Auxiliary diagram.
- Check AC Auxiliary diagram, Bank 1 Annunciator diagram, and comm rtu diagram.

**Yao Cheah**

- Work on comm rtu diagram.
- Check Distributed I/O Board.

**Chufu Zhou**

- Work on Distributed I/O Board.
- Check Bank 1 Annunciator diagram.

**Tam Nguyen**

- Work on Bank 1 Annunciator diagram.
- Check DC Auxiliary diagram and AC Auxiliary diagram.

**Individual Contributions**

| <b>Team Member</b> | <b>Individual Contributions</b>  | <b>Hours</b> | <b>Cumulative Hours</b> |
|--------------------|--|--------------|-------------------------|
| Katayi Katanga     | Did research on: <ul style="list-style-type: none"> <li>- Project scope</li> </ul> Created/Performed: <ul style="list-style-type: none"> <li>- AutoCAD modification to the diagram</li> <li>- attended all meetings</li> </ul> | 6            | 23                      |

|                |  |   |    |
|----------------|--|---|----|
| Nur Shuazlan   | <p>Did research on:</p> <ul style="list-style-type: none"> <li>- Project scope</li> </ul> <p>Created/Performed:</p> <ul style="list-style-type: none"> <li>- AutoCAD modification to the diagram</li> <li>- attended all meetings</li> </ul> | 6 | 23 |
| Yao Cheah (YJ) | <p>Did research on:</p> <ul style="list-style-type: none"> <li>- Project scope</li> </ul> <p>Created/Performed:</p> <ul style="list-style-type: none"> <li>- AutoCAD modification to the diagram</li> <li>- attended all meetings</li> </ul> | 6 | 22 |
| Tam Nguyen     | <p>Did research on:</p> <ul style="list-style-type: none"> <li>- Project scope</li> </ul> <p>Created/Performed:</p> <ul style="list-style-type: none"> <li>- AutoCAD modification to the diagram</li> <li>- attended all meetings</li> </ul> | 6 | 22 |
| Chufu Zhou     | <p>Did research on:</p> <ul style="list-style-type: none"> <li>- Project scope</li> </ul> <p>Created/Performed:</p> <ul style="list-style-type: none"> <li>- AutoCAD modification to the diagram</li> <li>- attended all meetings</li> </ul> | 6 | 21 |

Team Hours: 30

Cumulative Team Hours: 111