

EE/CprE/SE 492 – SDMAY20-15

Substation Design

Weeks 11 and 12

Client: Burns & McDonnell

Faculty Advisor: James McCalley

Team Members: Kaitlyn Ziska – Professor Client Liaison

Brian Mace – Chief Engineer

Brandon Kaas – Scribe

Salvador Salazar – Meeting Facilitator

Justin Fischbach – Test Engineer

Robert Huschak – Report Manager

Bi-Weekly Summary:

Continued work on wiring diagrams for the Substation; we are in the process of finalizing work with additional rack dimensions and fuses on these for final review now. These drawings detail the relay connections for the protection and controls system as well as AC systems for power. Developed schematics for substation drawing of Des Moines line exit. We also began work on poster and the final design document.

Past Week Accomplishments:

ORGANIZATIONAL ACCOMPLISHMENTS:

1.) Organized successful systematic approach to finishing Senior Design work via virtual meetings and independent group work.

TECHNICAL ACCOMPLISHMENTS:

1.) Submitted revised and corrected Protection and Control systems for the substation for review and rework.

- a. Corrected wiring the three 138kV breakers and 2 relays associated with them.
- b. Draw connections on sample breakers and relays to coincide with scope document
- d. Reference connections between drawings with proper labeling

Pending Issues: No pending issues. Ahead of schedule Individual Contributions:

Team Member	Individual Contributions	Bi-Weekly Hours
Kaitlyn Ziska	Meeting organization, Documentation	11

Brian Mace	Quality Assurance	9.5
Brandon Kaas	Documentation	9
Salvador Salazar	Cad Work Client update	12
Justin Fischbach	CAD Overview	11.5
Robert Huschak	Documentation, CAD Overview	12

Plan for Following 2 Weeks:

1. Submit updated final draft of protection schematics
2. Continue work on poster
3. Finish work on final Design Document