BIS Internship Summary Powerpoint

Created by BIS Student Cylor Morgan
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Internship tasks

- The first three weeks I was working with the materials coordinator. We would find the proper steel needed and label it. The steel number on the prints was not the same as the stamp on the steel. We had to carry around the bill of materials to correctly identify the various products. Such as high single and double bus supports (240 on site), low singles and doubles (72 total) surge arrestors(90), CCVT's(54), ppt's (8), v-type switches (48).
- The second or third week I got my forklift license and could stage materials for the iron crew setting the steel.
- Soon after the iron workers quit.
- I was put in the position of an iron worker and had a two man crew I was operating the forklift while they spotted and bolted the steel to the piers.

Internship tasks

- I learned how the foreman keep track of production, each task such as setting structural steel, laying conduit, laying grounding grid to setting up a battery rack in the control house. Just about every job has a payment in hours.
- Examples: ground cable run is worth .098 hours per foot, setting a low bus support which was a job I had is worth 2 hours per pole and the installed insulator on top is another 1.5 hours.
- Everyday we got faster and better at doing the job. My goals were usually a 200 percent production rate per actual man hours used.
- Soon that became easy until we were running close to a 300 %
- So if my crew was not on overtime we used up 30 hours of labor and averaged close to 60 hours of production per day. The last day setting steel we had 101 hours of production so an ump of 3.36

Internship tasks

- That was my job the entire internship until we finished the structural steel.
- Currently we are setting two part insulators on top of some of the steel we have set.
- My job has been pretty much the same since I arrived. Nothing too new. I learned how to make exothermic welds that we used to connect the copper ground grid.
- But since the steel crew quit its only been my guys doing steel.
- Currently this week we have had a surge of new workers so my crew has grown by three.

Edith Clarke Station No. 454
Crowell, Texas Upon Arrival

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Edith Clarke Station No. 454
Crowell, Texas two weeks ago.

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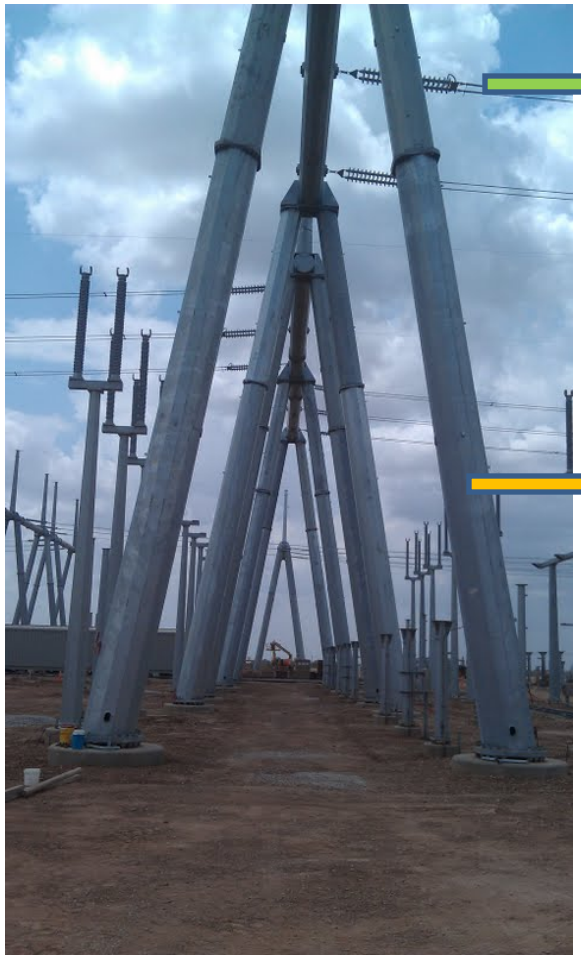
Pictures and Descriptions



String bus: carries the electricity that comes into the station. The electricity will be brought to the aluminum pipe that runs on top of insulators attached to the steel. It is brought down using jumpers welded onto it. Hangs at 80ish feet off the ground.

Dead-End Sructures: 14 on site 95’ to the top of the static line.

Pictures and Descriptions

High Double bus support: single structure that has two insulators mounted on top.

High V-type switch: not completed. The beam on top of the legs was the heaviest thing I had to set that high. It weighed 1938 and is 26’ 11” off the ground.

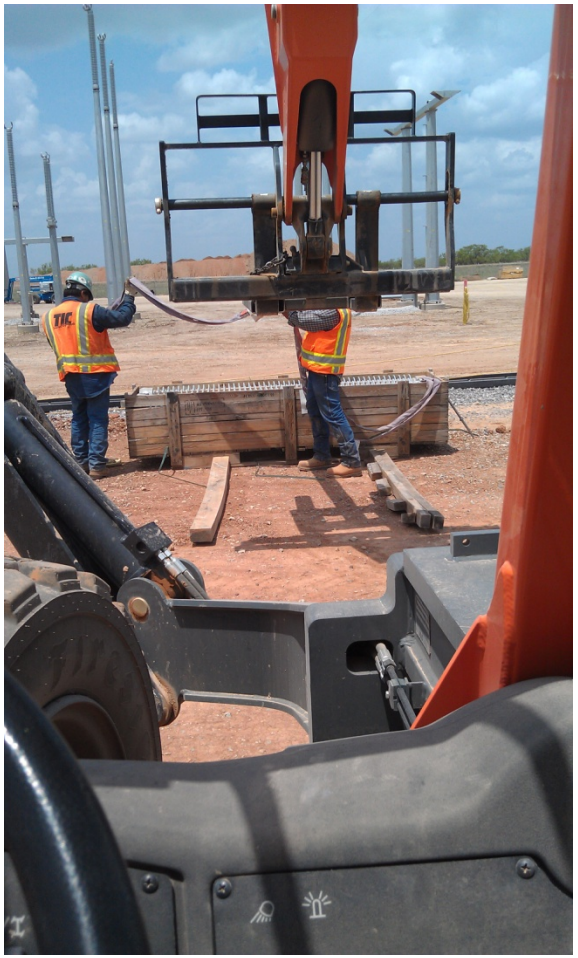
Pictures and Descriptions

The very top of the insulators has a support that will eventually get a 6” aluminum pipe place in it. That pipe will carry the electricity that is dropped from the string bus by jumpers.

Pictures and Descriptions

Fernando and Crespin attaching the nuts to the anchor bolts, securing the steel to the pier.

Pictures and Descriptions



Unboxing insulators: print # 6337, weigh 550 pounds 8 feet long and are solid porcelain with steel top and bottoms. Come 6 to a box

We used doneage to protect the glass from the ground. Used a variety of techniques to get them out of the box. Settled with using a 16 foot choker to catch the ends.

Pictures and Descriptions

Insulators 6337: these particular ones will get the plates seen in the picture attached to the bottom. They will then be put on either a high or a low double.

Pictures and Descriptions

Pier for a dead-end structure. The pier is six foot in diameter and is 26 feet deep.

Pictures and Descriptions

Foreman installing the mounting horns on the dead-ends for the station lights.

Pictures and Descriptions

Fernando bolting the two piece insulators together. This item will be placed on top of the CCVT steel.

Pictures and Descriptions

CCVT insulator: first piece can be picked and placed by the top. The entire structure has to be rigged from the bottom. We use 4 16’ chokers to set these. It weighs only 730 pounds.

Pictures and Descriptions

CCVT steel: 54 on site worth 2 hours. 13 feet 11 inches tall without the two part insulator.

Pictures and Descriptions

Cable trench: a cable tray will be covered eventually but this runs around the control building and also a north to south run on both sided of the site.

Pictures and Descriptions

A switch crew from Tahlequah, Oklahoma came in last week they are only setting v-type switches.

Pictures and Descriptions

A completed v-type switch: the middle insulator is able to swivel and a motor operated switch is used to divert the direction the a b c phase electric current.