

JEA

Northside Unit 3 Duel Fuel Boiler Control system Migration Overview

JEA Northside Generating Station Unit 3 is a 563MW duel fuel unit. It has 3 levels of burners with 8 burners on each level. They can be fired with No.6 oil and natural gas on different burners depending on fuel price and availability.

The Unit 3 burner management system, combustion control system, and the balance of plant have been migrated to DCS in phases by the collaboration of MEL and JEA on the scope development, engineering design, implementation, and commissioning.

MEL adhered to the virtual startup concept in DCS engineering by integrating BMS, CCS, and BOP controls to a MEL designed dynamic simulator. Along with the new DCS HMI, the MEL simulator allowed the DCS engineers to commission the system virtually before the construction was complete. As a result, the JEA Unit3 DCS migration project was commissioned ahead of schedule without any control system complication.

The systems commissioned include:

- Burner Management System (BMS)
- Combustion Controls System (CCS)
- Balance of Plant (BOP)
- Alarm Management and Operator Graphics

