

BMA Saraji CHPP Control System Upgrade

DCS has experience in upgrading the CHPP Control System. Several significant improvements have been made.

- Citect Software version 5.6 was unsupported (Now Version 7.2 Latest)
- Microcell PLC System (AB Series 5) unsupported. Spares are Rare (Only Option - DRE37 PDM)
- 7 Different Authors for PLC code made it difficult to understand / fault find
- 15 Different targets within Citect
- Plant was not sequence started or shutdown. 14 different ways to start the plant with over 56 clicks of the mouse on average (39min – 2Hrs)
- Innovative Ideas could not be executed as the PLC Coding options in the old PLC platform were limited
- Ineffective PLC fault code flooded the system (Boy who Cried Wolf)
- Amalgamation of Control System Communication Networks (7 to 3) for a more reliability
- Better Ash Control through improved PID function – system more responsive to maintain correct Specific Gravity (SG)

In the previous control system there were 14 different ways to start the CHPP requiring over 56 clicks of the mouse. This has been greatly reduced with only one way to start the plant. Start Up has been reduced from 39 mins to 8 mins. Sequence start is programmed to limit current draw on electrical infrastructure while starting the plant.

Course, Middlings and Fines circuit performance captured on the one Citect Page for Operations. This has been set up as a web client and can be viewed remotely in the workshop offices.

Cascade Modes continually scans the health of the CHPP to maximise throughput. Feedrate will automatically adjust taking into consideration the availability of loops, Microcells, Reflux Classifiers and Yield performance. Cascade mode has increased the feedrate on our loop outages from 1900tph to 1960tph, and from 2100tph to 2160tph when the plant is fully available since commissioned in July 2014.

Real Time trending assists Operations, Processing Engineering and Maintenance teams with identifying performance issues in the plant. Data can be reviewed at anytime.

Run Hours for all Drives are captured to better understand life of components. This information is valuable for the Planning and MAI Engineers. Hours are reset in the system when components are replaced.

Citect pages truly represent the physical installation within the CHPP of all components. The previous version of the control system had a lot of mistakes causing confusion and safety concerns to personnel.

Interlocks and Fault Information for all components eliminate fault finding in the CHPP as this information is displayed for the control room operator.

To discuss your project requirements contact the DCS Australia team:

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