

# BMA Saraji CHPP Arc Flash and Protection Study

DCS has been providing permanent on-site technical services in the Saraji CHPP since 2013. In addition to the ongoing site role, DCS has also made significant contributions (often as the lead role) in various shutdowns and infrastructure projects from 2014 onwards.

Some of the key projects DCS has been involved with include:

## **2014 - Saraji CHPP Major Shutdown**

Deliverables include:

- Engineering design, supply and commissioning of software and PLC equipment for the control system upgrade of the entire CHPP, including completely rewritten PLC code and CitectSCADA system.
- Engineering design, supply, FAT and site commissioning of new Train Load Out MCC6.
- 24hr, 7 day per week on-site engineering support and commissioning during and post shutdown (7 weeks in total).

## **2015/16 – Saraji MCC2A/2B Replacement Project**

Deliverables include the engineering design, supply, FAT and site commissioning of:

- New MCC2A/2B and associated PLC Relay Panels.

## **2018 – Saraji CHPP Major Shutdown**

Deliverables include the engineering design, supply, FAT and site commissioning of:

- New MCC1A/1B, MCC3A/3B and associated PLC Relay Panels.
- New Power Factor Correction (PFC) Panels for MCCs 1A, 1B, 2A, 2B, 3A & 3B.
- New Tailings Disposal Pumps MCC701 and associated MCC401 feeder cell.
- New Sparger Pump starter cells for MCC4B.
- New MCC401, MCC4A and MCC4B incomer Air Circuit Breakers.
- Addition of a new tier to the Essential Services DB (ESSDB).

## **Working relationship**

Through the above site and project experience, DCS has formed an intimate technical knowledge of the Saraji CHPP that has enabled it to achieve exceptional outcomes for BMA in terms of the inception, design, and implementation of capital projects for electrical infrastructure. However, it is the strong mutual respect between BMA and DCS personnel, developed over time, that has greatly assisted both to work together as a team to meet their common objectives.

Many of the above-mentioned design projects began with an Arc Flash and Protection Study to determine equipment sizing, nominate correct combinations of protective devices, and to highlight points of weakness/danger. The strong working relationship between BMA and DCS has always allowed DCS the freedom to openly express ideas and strategies that ultimately have led to a much more robust, reliable and safe CHPP at Saraji.

### **Point of difference**

The Arc Flash Study performed by DCS is in fact a lot more than the name suggests. We typically run several very important preliminary studies on the electrical system before even considering the Arc Flash analysis.

The two most important of these are:

- Protective Device Sizing Study
- Cable Sizing Study

### **Why is the DCS Arc Flash Study Superior?**

- No additional engineering required
- A strong focus on safety
- Attention to detail
- Diverse operational scenario generation
- Existing interconnected model

To discuss your project requirements contact us:

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