

CHPP Structural Audit and Integrity Management Program

EMERALD, QLD, AUSTRALIA / STRUCTURAL

CHALLENGE

A coal handling and preparation plant carries a dense network of structural assets. Annual inspections were identifying defects faster than they could be closed: the register grew year on year, and the friction in moving each defect from identification to repair and sign-off consumed budget without reducing risk. The operator needed a way to turn a growing defect list into a managed, shrinking one.

APPROACH

Mincka inspects the plant visually, supported by remote and robotic methods for difficult or dangerous access zones, and risk-rates every defect in line with the client's Risk Management Policy. The infrastructure is 3D scanned to build a structural digital twin, and an RPEQ-signed repair package is engineered for each defect. A digital workflow in Argus captures every repair and drives it to closure, with sign-off based on repair quality.

OUTCOME

Mincka has delivered the structural audit annually since 2017. Since the introduction of the Integrity Management Program supported by Argus, the operator has shifted from a growing backlog to a managed, reducing register: defect closure rates have more than doubled, the open-defect backlog has fallen by over 30 % across consecutive audit cycles, and the average time from identification to signed closure has been cut from months to weeks, all delivered within a reduced maintenance budget.

CAPABILITIES APPLIED

- DEFECT IDENTIFICATION AND RISK RATING
- REMOTE AND ROBOTIC ACCESS INSPECTION
- DEFECT MANAGEMENT TO CLOSURE IN ARGUS
- STRUCTURAL DIGITAL TWIN OF THE ASSET