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smart project delivery

Dust Mitigation Pilot Project

Project Location

Pilbara, Western Australia.

Scope

The project included a definition phase study encompassing detailed engineering, design and shop detailing to trial and quantify the effectiveness of a dust mitigation solution using a combination of belt washing, in-chute water fogging and skirt sealing to reduce dust emissions from the handling of iron ore through a pre-selected transfer station.

Business Objective

Dust emission management had been an ongoing challenge for the client, while investment in mitigation measures and continuous operational initiatives contributed to an improvement in recent years, shifts in global and local regulatory standards necessitated a continued focus for forward planning in this area. The results received from the project were to be used as supporting evidence for the larger dust mitigation project as it entered its' own selection phase study.

Challenges to Overcome

A number of challenges were encountered during the project including, a heavy brownfield environment with outdated drawings, installation of a belt wash system on a shuttle conveyor and tight shutdown dates.

Smarts

To mitigate these challenges the project team carried out site visits to map certain areas of plant to ensure the design was suitable for the actual environment. Client standard designs were modified to suit the shuttle conveyors arrangement which is significantly different to that of a typical conveyor. Shop detailing packages were staggered to suit the shutdown schedule to provide the best chance of meeting the targets required.

Project Outcome

The design drawings were completed in time for the client to tender and engage a construction contractor. The shop detailing drawings were produced in time for the contractor to fabricate the structures by the clients requested shutdown dates.

Delivering Value. Delivering Results.