

COMPLETED PROJECTS

SITE:	Tom Price Iron Ore Operations
LOCATION:	Tom Price WA
SCOPE OF WORK:	Fire Detection and Gas Suppression Upgrade
COMPLETION DATE:	January 2017

**RIO
TINTO**



The Iron Ore Operations in the Pilbara function under the Rio Tinto banner who are a world-class asset manager operating and maintaining mining, rail and export facilities within the northwest of WA. The site is located in the West Pilbara region of WA and is approximately 1600km north of Perth by road.

The existing electrical distribution system equipment at this site was approximately 40 years old and at the end of its useful operating life. Continued operation of this equipment posed a safety risk with some equipment no longer able to operate manually under normal circumstances.

SCOPE DETAILS

Firesafe were engaged to replace the existing CO2 fire system with an approved FM200 system. The works conducted include:

- Design, supply, installation and commissioning of FM200 system in accordance with AS/ISO14520
- Decommission and disposal of existing CO2 Fire Suppression system.
- Supply, installation and commissioning of a fully compliant VESDA system in accordance with AS1670
- Networking of all Notifier AFP2800 fire control panels.
- Reprogramming all existing control panels with updated software
- Installation of external signalling links to remote Romtec Radio Base Station from each Fire panel.



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The scope of works covered the fire protection assets located at the following electrical substations at Tom Price Operations:

- Substation 11 – High Grade Plant LV1
- Substation 22 – Tailings Dam
- Substation 25 – Low Grade Plant Level 2
- Substation 31 – Coarse Tailing
- Substation 33 – Washing and Screening
- Substation 40 – Fines Handling
- Substation 41 – Stacker 15 (on-board the mobile machine)
- Substation 43 – Stacker 82 (on-board the mobile machine)
- Substation 44 – Stacker 88 (on-board the mobile machine)

CHALLENGES & SOLUTIONS

- The biggest challenge with the above mentioned project was the short delivery time that was available to complete the works. Firesafe had just two months to design, fabricate, procure, install and commission the systems on eleven individual sub stations. This challenge was overcome by assigning extra resources, with up to eight individual technicians on site at one stage to get the works completed.
- Another challenge was the operational aspect of the equipment that was being upgraded, which meant that all existing systems had to remain 'live' until the new systems were ready to operate. Firesafe technical expertise and pro-active approach meant that we were able to design and install the systems in such a way that the new system was installed tested and commissioned, with only a short window required for system swap over and full function testing prior to the old system being decommissioned.

