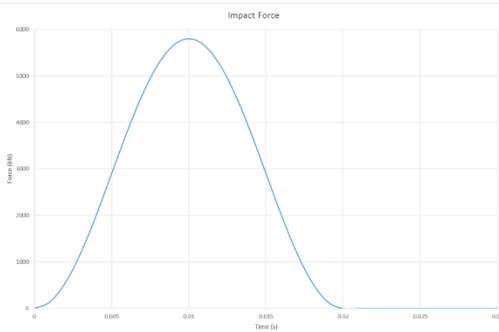
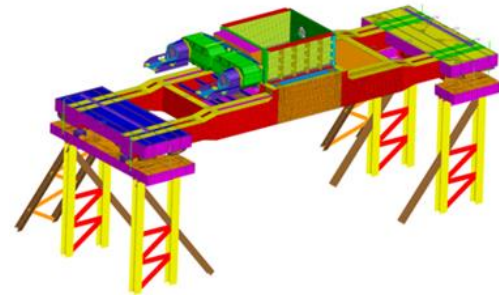
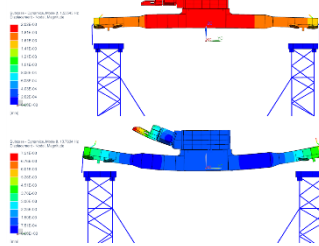
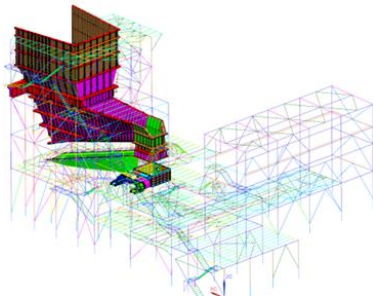


PROJECT OVERVIEW



Primary Crusher Project

Western Australia

PROJECT OVERVIEW

Project Scope:

- EDC was engaged to investigate a long-standing structural vibration issue that was causing cracking failures in the Primary Sizer and the whole building structure.

Challenge:

- Identify force excitation of unknown magnitude developed by impact forces generated in the sizer, producing significant broad band energy, sub-20Hz frequency range.
- Traditional structural design changes were not going to achieve an acceptable outcome, forcing innovative design.

Outcome:

- EDC determined the source of the excitation was predominately from large rock balling scenario bouncing on the crusher teeth.
- Develop a 200T heavy mass isolation frame with air operated absorbers.

Success:

Through measurement, modelling, analysis and collaboration with key stakeholders, the team were able to:

- Identified root cause of vibration issue.
- Developed a unique structural frame design to isolate vibration at the source.

CLIENT: Rio Tinto

SITE: Marandoo & Hope Downs

DURATION: July 2016 – Aug 2021

