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## **DESCRIPTION**

A comprehensive review of the hot storage skip systems highlighted key areas of risk, in particular the possibility of an unforeseen system failure and the potentially catastrophic consequences due to the close proximity of 160 tonnes of bitumen storage tanks.

A 'safer by design' working group developed an engineering solution that would absorb a high energy impact in the event of a failure that would prevent the skip flipping and causing catastrophic damage. The solution was to install a skip crumple zone' together with additional structural strengthening. Modifications were also made to the existing PLC software, to include zero and over-speed detection, secondary controls to apply the skip break, and travel direction checks.

## **BENEFITS**

- Removal of potentially fatal risk to employees and third parties
  Workforce engaged in finding solution using the 'safer by design' philosophy
- Improved traffic management on site for third parties
- Allowed unrestricted bitumen delivery timeslots
- This approach can be utilised at other asphalt plants

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