SAFETY ALERT

The below information has been issued on behalf of the EFFC to make others aware of the potential risks and possible precautions to take in order to avoid these.

Date/Time of Incident:	27-05-2026
Type of Incident:	HIPO
Nature of Incident/Injury:	Mechanical failure of a mast chain
Details of Incident:	On 27-05-2026 during the installation of 400mm SFA piles to an average depth of 16m with the Hutte 207 piling rig, there was a mechanical failure of the mast chain. Nobody was injured.    
Root cause (if known):	1. The failure was identified as a chain breakage within the mast assembly. 2. Inspection of the chain for wear indicated that elongation was less than 1%, which was well below the manufacturer's typical wear threshold of approximately 2%–3% for replacement or end-of-service consideration. In addition, the failed chain was only five years old, which suggests age-related replacement was not an obvious trigger.

3. Removal of the inspection hatch where the chain motor is located, found significant build up of debris, this included sand and spoil from previous projects.
4. The chain running through this section appeared to be dry and showed little evidence of effective lubrication.
5. The breakage point was identified just above this area remained hidden from view, not easily inspected daily.
6. Further investigation of the chain in this area indicates that the chain had seized at this location, which accelerated significant localised wear.

Action Taken:

1. Introduce more rigorous daily inspections with specific attention given to mast chain condition and lubrication status.
2. Update the plant daily check sheet so that chain inspection requirements are clearly identified and recorded.
3. Update the PDI (pre-deployment inspection) sheet to include chain condition.
4. Thorough cleaning of the chain should be done prior to the application of the lubricant.
5. Issue a dedicated penetrating, anti-wear roller chain lubricant for plant operator/foreman operating chain-driven machines, so the correct product is consistently used to achieve effective lubrication of pins, bushes, and chain surfaces, particularly in dirty working environments.
6. Thorough examination of the piling rig should include details of the chain wear specifically recorded on the inspection certificate.

Lessons Learnt:

1. Lack of effective cleaning and lubrication of the chain mast resulted in accelerated wear of the chain.
2. Significant build up of debris adding to the lack of effective lubrication.
3. Concealed chain limited regular inspection and maintenance.

Corrective Actions Taken:

1. Introduce more rigorous daily inspections with specific attention given to mast chain condition and lubrication status.
2. Update the plant daily check sheet so that chain inspection requirements are clearly identified and recorded.
3. Update the PDI (pre-deployment inspection) sheet to include chain condition.
4. Thorough cleaning of the chain should be done prior to the application of the lubricant.
5. Issue a dedicated penetrating, anti-wear roller chain lubricant for plant operator/foreman operating chain-driven machines, so the correct product is consistently used to achieve effective lubrication of pins, bushes, and chain surfaces, particularly in dirty working environments.
6. Thorough examination of the piling rig should include details of the chain wear specifically recorded on the inspecton certificate.