

# Fatal 1 - Conveyor entrapment

## WHAT HAPPENED

An employee torso became trapped between the return idler and the running belt which resulted in a RIDDOR reportable. The investigation is ongoing, the details of the incident have not been made available at this stage.

### Investigation

The conveyor is approximately five years old and had been designed and built to BS EN 620 2002 and A1 2010. The design was that the return idlers were fitted with a basket guard similar to the illustration shown (Guarding of Machinery Guidance from the Quarry Products Association Aug 2005).

The guards were as designed and securely in place. Since the installation of the conveyor BS EN 620 has been updated to 2021 edition published in October 2021. Where previously it was thought that the installation of the basket guard was sufficient, BS EN 620-2021 has identified additional measures to ensure that the guarding is sufficient

- Access to the return idlers to be controlled by a four-stage zoning concept
- Restrict/guard access up to 2700mm high, previously 2500mm i.e., hand railing and signage
- The gap between the guard and the belt should be no more than 5mm
- The force measured with a dynamometer must be less than 150N for a 50mm deflection.

The issue is that the basket guard alone may just move the in running nip point from the idler to the edge of the guard, hence the need for these additional measures.



Basket Guard

## LEARNING POINTS / ACTIONS TAKEN

Survey **all** conveyors less than 2700mm from the floor that are not totally guarded.

- Ensure restricted access via zoning for belts below 2700mm,
- Fit idlers with basket guards
- Restrict access under belting with handrailing and signage or additional guarding, up to 2700mm
- Check gap between conveyor and basket guard, which must be less than 5mm.
- Survey belt deflection near basket guards for 50mm deflection with less than 150N force.

The deflection test applies to troughing rollers and return idlers that could be accessed from incline conveyor walkways.

Full details of the new requirement can be found in BS EN 620:2021.

**LOCATION:** RECYCLING PLANT  
**ACTIVITY:** GUARDING AND ISOLATION  
**SUB ACTIVITY:** NO SUB ACTIVITY AVAILABLE

**ALERT STATUS:** High Potential  
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