

Memo

INTERNAL/SENSITIVE



To: BHE Safety Leads

From: Simon Keightley - Northern Powergrid Field Safety Manager

CC: Geoff Earl

Date: 8 February 2018

Ref: Cable Drum Rack Memo 1.0

SUBJECT: Cable Drum Racking Systems

Colleagues

Last year one of our contractors suffered serious injuries when a drum of cable, weighing circa 200 kilograms, fell 3.1 metres from a cable drum racking system and hit his hand. If the operative had been stood in a slightly different position the outcome could have been far worse.

The investigation has resulted in a number of procedural processes being reviewed and amended. We use fork lift trucks to place cable drums into position on the racking system. We have concluded that with certain racking designs it is possible to misplace the cable drum bar on the racking system, a mistake that is not always easy to notice. We have also taken the decision to change the design of cable drum racks at our depots. I thought I'd share this with you in case you want to look at the cable drum racking systems at your locations.

I've used some pictures as follows to describe the problem.



Cable drum and bar fell from here and landed here.

The drums are lifted by fork lift truck and the drum bar should slot into the V shape at each side of the carrier. On the left cable drum and bar and the right hand side picture just the drum.



When the Fork Lift Truck lifted the drum, rather than hitting the back stop, it hit the front of the V section and then came to rest unsecured on the L shaped cross brace with the driver assuming it was properly engaged in the V.



This pictures show the drum bar (without the drum for our investigation reconstruction) incorrectly located on the L shaped cross brace. This allows for it to easily roll along the channel and fall to the ground.

If the bar is misplaced on the racking it can be seen from ground level but it takes deliberate 'conscious' observation, not just a glance. We concluded, amongst other things, that a factor in the accident was a single human error that went unnoticed. As we have 'humans' doing this every day we want to design out the risk. Hence, the reason for changing the racking to something that is more

'Human performance proof' where if the bar is placed on the racking it can only be secure, and by design there is no other possibility. I've shown, as follows some examples of such designs where the drum bar cannot be left in a misplaced position.



Regards, Simon Keightley