

Significant Incident Alert

Type of Incident	Significant Incident – Equipment Damage / Near Miss
Key Issues	Nurumi gyratory crusher suffered electric motor slip ring flashover/arc burn causing equipment failure
SAP Incident No	Incident ID 101178
Date & Time	Saturday 3 rd December 2022 @ 18.50 hrs
Location	0182CR01 Nurumi Crusher
Injury	Nil

DESCRIPTION

On 3rd December 2022 at 18:50 hrs the Nurumi gyratory crusher (0182CR01) had its drive's electric motor slip ring flashover/arc burn causing equipment failure of the crusher motor.

At the time of the arc flash a near miss incident was recorded when a crusher maintenance team member was within the arc flash zone.



The incident was caused when two of the three Liquid Resistance Started (LRS) electrical phases (red & white) came into contact resulting in short-circuit and thus created a spark that ignited the carbon filings/build up. This resulted in the arc flash/blast during the restart process of CR01.

LESSONS

- ❑ The need for quality QA/QC during motor maintenance activities and checked/approved by supervisor.
- ❑ Motor brush retraction system not commissioned on installation which required frequent cleaning of carbon dust build up.
- ❑ Accessway obstructed by scaffold setup did not take into consideration escape path for the restricted area.

ACTIONS

- ❑ SAP maintenance plans amended to include thorough detailed QA/QC requirements.
- ❑ Procure and retrofit to install arc-flash detection system on the motor in-situ and new motor.
- ❑ Motor zone barricaded to limit access whilst motor is operation.

Greg Moore

General Manager Processing

Business Unit::	Status:	Issued:	Page 1 of 1
Processing	Approved	09/03/2023	Business Confidential