

MANUFACTURING SAFETY ALERT

Ask Yourself
“Could it happen here?”

DESCRIPTION OF EVENT

VFD Failure/Fire

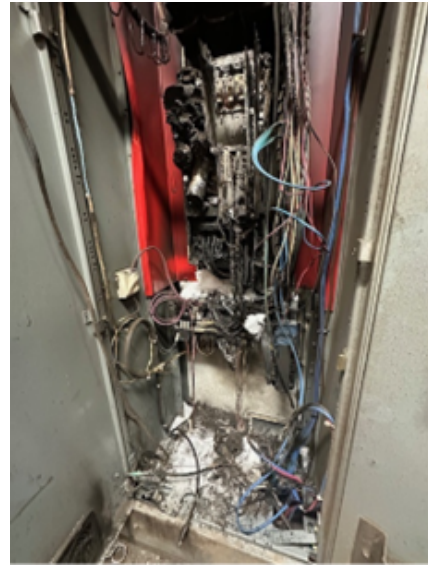
A ground fault on a debarker ring motor caused the variable frequency drive (VFD) to fail, leading to a fire in the motor control centre (MCC).

An investigation revealed that the grounding jumper was not removed from the VFD, allowing a higher ground fault current to flow through the drive instead of the neutral grounding resistor (NGR). This made the solidly connected VFD the path of least resistance, resulting in catastrophic failure due to the high fault current.

Fortunately, there were no injuries or significant equipment damage, except for the VFD enclosure.

SUGGESTED ACTIONS

- Confirm if MCCs are fed from well-grounded or resistive-grounded systems. Some divisions have both.
- Audit all VFDs to ensure they are configured according to OEM specifications for solid (jumpers inserted) or resistive-grounded systems (jumpers removed) and correct if not.



MOST IMPORTANT TAKE AWAY

- Never assume the jumper positions when installing drives. Proper electrical installation of the drive is critical
- Jumper positions should be audited before installation and commissioning.

