TRANSPOWER

# QUALITY ALERT!

30 April 2021
Maximo REF No. 100647

# Loose Vibration Dampers = Conductor Damage

## ISSUE IDENTIFIED:

A number of vibration dampers have been identified as not having been correctly installed resulting in loose damper clamps causing conductor damage. This appears to be a widespread problem and has been seen across numerous locations; some examples being HAY-TKR-A, KOE-MPE-A, BRB-DEV-A (earthwire), BPE-WIL-A, and GOR-HWB-A.

Picture 1: Conductor strands severed in outer and damaged second layer

Picture 2: loose damper removed.

Picture 3: Close-up of typical damper clamp showing worn clamp.

Picture 4: Another view of typical damper clamp showing thin, small diameter clamping washers

## CONTRIBUTING FACTORS:

- Indications are that the conductor clamp bolt not being tightened correctly during installation has resulted in the clamp losing its grip on the conductor over time
- Damper installations during the 1990's (when most were fitted) were usually by the live-line hot-stick method. It is thought that challenges tightening the clamp bolt to correct torque using this technique has resulted in many under-tightened vibration damper clamp bolts
- Also stainless steel bolts on vibration dampers manufactured by Dulmison NZ seized if tightened too quickly, so the bolt appeared to be correctly torqued but in fact it had seized before it was fully tightened

## ACTIONS TAKEN TO PREVENT REOCCURENCE:

This alert is being sent to raise awareness of:

- The issue with loose damper clamps causing conductor damage
- What to look for during CA inspections to identify possible loose dampers *(refer Pictures 1-4 above)*
- Replacement criteria in TP.SS 02.98 includes damper clamps found loose on the conductor
- The importance of reporting loose dampers when found so that Transpower can assess if the problem is specific to the asset or damper type, or a more widespread problem
- Correct damper installation methods as defined in the manufacturer's installation instructions and placement recommendations.

## LEARNINGS FROM THIS

- **All Service Delivery Managers, Project Managers, and Service Providers <u>must</u> report any instances they come across, where loose vibration damper clamps are found**
- **It is <u>essential</u> that vibration dampers are installed using correct methods as defined by the manufacturer**
- **It is <u>essential</u> that vibration dampers are replaced as per Condition Assessment criteria in TP.SS 02.98**

Quality Assurance

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