

Safety Gram



ABN 89 064 651 109

Safety Gram No. 20-02

ESAA 41/2002

AIM

To increase safety awareness affecting safe working practices and to provide Incident/Accident information sharing between centres.

TIME / DATE / LOCATION

- 1600
- 15th August 2002
- Werribee

BRIEF DESCRIPTION OF INCIDENT

Whilst straining a new 22KV OH line a polymer strain insulator failed prior to achieving full tension. The failed insulator was at the opposite end of the run to where the straining was being undertaken. Analysis of the damaged insulator was undertaken in conjunction with the manufacturer.

CONTRIBUTING FACTORS TO INCIDENT

Due to the way the fracture occurred it appears that a cantilever load caused the insulator to fail. It is assumed that this has occurred due to the eyebolt and hook assembly locking together while being strained.



LOCAL ACTION TAKEN

This type of polymer discs was quarantined until the failure method was determined.

ADDITIONAL COMMENTS

Following a discussion with the supplier it was agreed that these discs were suitable for service. The main issue being that the discs are not designed for cantilever loading. Each unit is proof tested to 40kN by the manufacturer.

FURTHER ACTION

Workgroups to be made aware that when straining conductors, that are attached to polymer disc insulators, care must be taken to ensure they don't lock up on the attachments when applying load. This means there must be a person at the fixed position visually checking that the discs don't lock up. This picture demonstrates how cantilever load can occur.



POTENTIAL SEVERITY (Fatality, Permanent Injury, Minor Injury)

The impact of the insulator failing as seen could cause different injury issues from fatality to a minor

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injury depending on the particular circumstance.

- Please discuss at Work Group Meeting.
- Copy to all notice boards printed on yellow paper.

Reported by: Glenn Henstock	Phone: 03 9683 4517	Date: 10/9/02
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