Distributor Safety Bulletin
Submarine Cable Hazards

Electrical Distribution Safety

GENERAL STATEMENT:

Two members of the public received an electrical shock; one of whom was critically injured due to an energized submarine cable operating with a corroded concentric neutral. The purpose of this bulletin is to;

- inform LDCs of the high risk hazard of aged submarine cable and,
- initiate action by LDC's to prevent this type of safety hazard

SAFETY AWARENESS:

The mode of failure causing the hazard of the submarine cable was the corrosion of the concentric neutral in shallow water near the shoreline. Over time, pH levels in the water, freezing and thawing of the water contributed to the corrosion of the concentric neutral. When the concentric neutral is corroded, water becomes the conductor in place of the concentric neutral resulting in electric shock for the public in water. Boats and anchors hitting the cable may also contribute to damaging the cable, in similar installations.

ESA RECOMMENDS:

- Incorporating submarine cable in maintenance programs to inspect and determine the condition of the outer covering and the concentric neutral of the submarine cable near shorelines.
- Replace aged cables to mitigate any hazards.

ADDITIONAL INFORMATION:

If you can provide additional information on this Bulletin or any other Utility issue, please contact ESA to share your experiences. Additional information requests, and follow-up information, may be directed to ESA. Please be prepared to quote Bulletin "DSB-01/08".

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