

## **Preliminary Summary of Dissection of Failure #3**

- The failure was in the yellow cable.
- The failure punctured the outer copper tape.
- The failure resulted in a burn mark on the fiber optic tube in the interstice between the red and the yellow cables.
- There were no burn marks on the drain wire lying next to the fiber optic tube.
- The actual insulation failure was oriented more toward the fiber optic tube than toward the copper tape.
- There was slight blow-back on the red cable about 500 mils (12.7 mm) from the failure but no change to the insulation on the red cable.
- There were no indents or markings on any of the power cables.

**Cable Failure Ready for Dissection**



**Failure Puncture in Copper Tape**



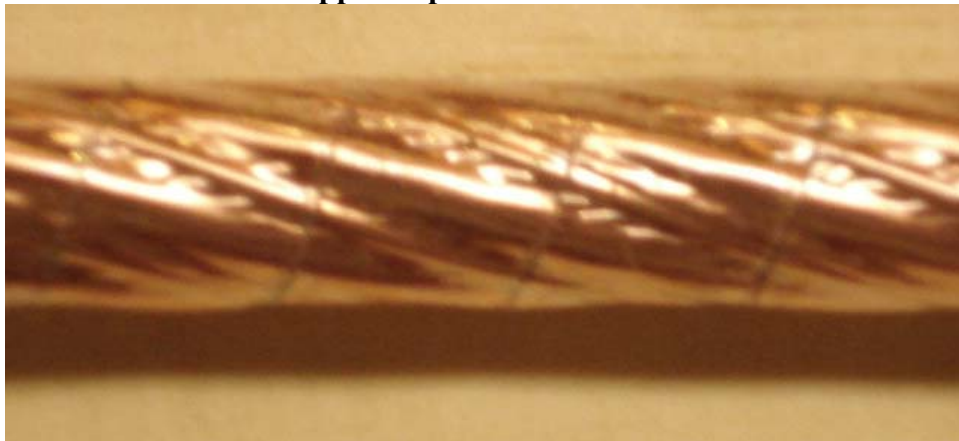
**Failure #3 in Yellow Cable**



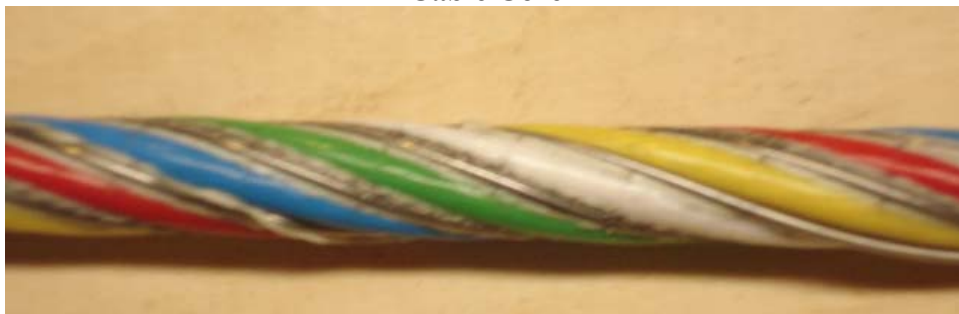
## **Dissection of Non-failed Cable Section**

- The cable shows no sign of mechanical damage or distress.
- The armor is tight.
- The outer jacket shows no sign of mechanical damage.
- The copper tape intercalated with a plastic tape is uniform,
- The fiber optic tubes and drain wires are laid together in the interstices between the power cables.
- A white filling material was noted in empty spaces within the core.
- The screened Quad's copper tape intercalated with a plastic tape surround the quad's conductors uniformly.

**Copper Tape over Cable Core**



**Cable Core**



**Quad with Filler Material**



Torben Aabo, 5 October 2010