



National Aeronautics and
Space Administration

SA-06-99



Langley Research Center Safety Alert

Date: JUN 21 1999

TO: All LaRC Employees

FROM: 429/Head, Office of Safety and Facility Assurance, OSEMA

SUBJECT: Cutting and Removal of Electrical Cables

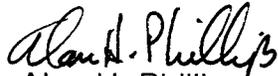
The following lessons learned from a recent mishap investigation are being shared with all LaRC employees in the hope of preventing similar mishaps in the future.

Cutting and removal of potentially **energized** cables could cause serious injury or death. In order to perform cutting and removal of cables in a safe manner, the following precautions should always be followed:

- If a cable is still connected to a source of power, the power source must first be de-energized, locked-out and red-tagged in accordance with the requirements of LAPG 1710.10, Safety Clearance Procedures (Lockout/Tagout).
- The cable itself must also be tested immediately prior to cutting or pulling to ensure that it is truly de-energized. Never assume that a cable is de-energized; always test. Inexpensive, non-intrusive, easy to use devices are available for conducting this test. Qualified electrical personnel should be contacted to make this determination if facility technicians do not have test capability or do not feel comfortable about making this determination.
- In congested areas with multiple cables and conduits, check and double check the cables being removed to ensure that crossover to energized cables does not occur.
- When working on cables from elevated surfaces, use a ladder, or scaffolding, that is properly sized, approved for electrical use, and in good condition. Do not stand on handrails or other unstable surfaces.
- Use the correct tool for the job. Electrical cables should only be cut using approved cable cutters with insulated handles. Bolt cutters should not be used for cable cutting.

- When removing cable, use mechanical aides where necessary. Trying to pull long lengths of heavy cable by hand can result in serious muscle strains and back injuries.

Questions concerning this alert should be directed to the Office of Safety and Facility Assurance at 47233 (4SAFE).


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421/HTG



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