



SA-01-88

DATE: January 7, 1988

TO: Facility Safety Heads
Facility Coordinators

FROM: 429/Safety Manager, Head, Safety Engineering Branch,
SSQRD

SUBJECT: Control Panel Light Philosophy

As a result of the investigation of the February 3, 1987 mishap at the NTF, the LaRC Executive Safety Board assigned the Operations Support Division the action to determine what control panel light philosophies are in existence at LaRC research facilities. As stated in LHB 1710.6, Electrical Safety, the existing LaRC Control Panel Light Philosophy is as follows:

Color Coding of Indicating Lights

- Color caps on indicating lights designating the condition or position of the contacts on circuit breakers or switches shall conform with the following:
 - (a) Contacts closed - red
 - (b) Contacts open - green
 - (c) Contact automatically tripped open - amber
(when furnished)

- Color caps on indicating lights designating the position of a valve that controls to allow flow or block flow shall conform with the following:
 - (a) Allows flow - green
 - (b) Blocks flow - red

The required designation as indicated here may be waived by the LaRC Safety Manager if, for reason of prior usage in a facility, it is deemed safer to use other designations. This special ruling, shall require written notification and approval from the LaRC Safety Manager.

A survey of 32 facilities revealed that this scheme was used in 90% of the facilities.

Additional recommendations are as follows:

- Colors other than red and green (which apply to electrical contacts and valves) may be used to indicate status of other system elements.
- Number of colors should be minimal
- Within a facility, colors should be consistent in meaning
- Light "OFF" should not indicate system status
- For complex countdown/high-speed operations and multiple model operations, consideration should be given to providing a redundant indicating light panel which will display a uniform color upon proper configuration of all system elements for the selected mode:

Green - Safe/Proceed
Red - Unsafe/Hold/Take Action

Please note that it is not being recommended to revise the color schemes used in existing facilities. These recommendations are to apply to new facilities or a major rework of an existing facility.

If you have any questions or comments, please call C. Zeitman at extension 3979.

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