REVISION REQUEST

DATE:
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REQUESTED REVISION:
STANDARD: IEEE Std 802.3cr-2021
CLAUSE NUMBER: 70.9.1, 71.9.1, 72.9.1, 84.10.1, 93.10.1, 94.5.1, 130.9.1, 83A.6.1, and 83B
CLAUSE TITLE: General safety

PROPOSED REVISION TEXT:
Change "conform to the applicable requirements of Annex J" to "conform to J.2" in all of the subclauses above.

RATIONALE FOR REVISION:
The clauses listed in this request define electrical backplane PHYs and attachment unit interfaces, which are DC coupled on either the transmitter, or the receiver, or both, with a nominal differential impedance of 100 Ohm.

Annex J includes requirements for Electrical isolation (J.1) and General safety (J.2). Most clauses point explicitly to either J.1 or J.2 or both. The subclauses listed above state "applicable requirements of Annex J" which may be interpreted as the entire Annex.

The isolation requirements of Annex J.1 (which was added by IEEE Std 802.3cr-2021 to replace an external reference to the withdrawn IEC 60950-1) are not applicable to these PHYs and interfaces. As stated in comment #R1-17 against 802.3cr D3.1, the isolation tests specified in J.1 (which expose the device under test to 1500 V or higher, either ac, dc, or pulses) would likely cause permanent damage if applied to such devices. In addition, the normative requirement "The resistance after the test shall be at least 2 MΩ, measured at 500 V dc" is not met by such devices even before the test is conducted.

The isolation requirement existed in IEC 60950-1 but were likely considered inapplicable for these PHYs. The statement added by 802.3cr is more explicit, and can mislead readers to believe these PHYs should conform to isolation requirements, while the intent was to conform only to safety requirements (J.2).

IMPACT ON EXISTING NETWORKS:
None expected; backplane PHYs have never met these requirements in the first place.
Please attach supporting material, if any

Submit to:-- David Law, Chair IEEE 802.3

and copy:-- Adam Healey, Vice-Chair IEEE 802.3

At:- E-Mail: stds-802-3-maint-req@ieee.org

For official use

REV REQ NUMBER: 1384

DATE RECEIVED: 15 March 2021

EDITORIAL/TECHNICAL

ACCEPTED/DENIED

BALLOT REQ'D YES/NO

COMMENTS:

For information about this Revision Request see -

http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1384