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|                          REVISION REQUEST                            |
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DATE: 3/28/2021
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REQUESTED REVISION:
  STANDARD: 802.3-2018
  CLAUSE NUMBER: 72.7.1.11
  CLAUSE TITLE: Transmitter output waveform requirements
PROPOSED REVISION TEXT:

b) The positive and negative voltages shall match such that each
of the quantities $\min(|v1+v4|/v1, |v1+v4|/|v4|)$,
$\min(|v2+v5|/v2, |v2+v5|/|v5|)$ and $\min(|v3+v6|/v3, |v3+v6|/|v6|)$ does not
exceed 0.05.

RATIONALE FOR REVISION:
For the transmitter output waveform requirement specified in 72.7.1.11
there is a waveform illustrated in Figure 72-12 and the statement
b) for the pass or no-pass criteria

Taking the case for quantity $(v1+v4)/v1$ which needs to be less than 5%.
If magnitude of value of v4 is greater than v1 then the this quantity is
always negative and the condition always met since it is less than 5%
which is not right.

The other issue is why is the denominator v1 and not v4. The choice
causes a small difference in the value of the quantity depending which
one of the magnitudes are used.

It would be better if the definition was such that the following
equations are all required to be less than .05
$\min(|v1+v4|/v1, |v1+v4|/|v4|)$
$\min(|v2+v5|/v2, |v2+v5|/|v5|)$
$\min(|v3+v6|/v3, |v3+v6|/|v6|)$

We need the equations to address the magnitude of expression and not the
scalar value. Also to be concise it would be good to consider magnitude
of both negative and positive voltages in the denominators.

IMPACT ON EXISTING NETWORKS:
unknown

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|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               |
|                                                                   |
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|              | REV REQ NUMBER: 1393                     |         |
|              | DATE RECEIVED: 28 March 2021             |         |
|              | EDITORIAL/TECHNICAL                      |         |
|              | ACCEPTED/DENIED                          |         |
|              | BALLOT REQ'D    YES/NO                   |         |
|              | COMMENTS:                                |         |
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| For information about this Revision Request see -                 |
|http://www.ieee802.org/3/maint/requests/revision_history.html#REQ1393 |
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