Interpretation Number:	1-11/00
Topic:	Generation of quinary symbols TA_n, TB_n, TC_n, TD_n
Relevant Clauses:	40.3.1.3.5
Classification:	Unambiguous

Interpretation Request

In looking at the description of "Encoding of End-of-Stream delimiter" in section 40.3.1.3.5, the second paragraph, beginning "If carrier extend error is indicated during ESD, . . ., two conditions upon which this may occur are . . .

The two conditions given are redundant. To see this, note that the second condition contains all of the terms of the first, but with one additional condition, (tx_error<n-3>). Any time the second condition holds, the first necessarily does as well!

Logically, it is sufficient to test for only the first condition. However, I suspect that something else was intended. Is there some error in one of the stated conditions?

Interpretation for IEEE std 802.3-1999

Subclause 40.3.1.3 ‘PCS Transmit function’ clearly states that ‘The PCS Transmit function shall conform to the PCS Transmit state diagram in Figure 40-9.’, all the following subclause go on to describe the PCS transmit function in detail.

With reference to Figure 40-9 it can be seen that ESD_Ext_Err can be present at 2 separate symbol times; in one case, 3 symbols after the end of frame and in the other, 4 symbols after the end of frame. These correspond to the states "ESD1 VECTOR with Extension" and "ESD2 VECTOR with Extension" when tx_error is asserted and TXD!=0x0F in Figure 40-9.

Hence what this text is describing is not combinatorial logic but the two separate states in the state machine that result in the transmission of ESD_Ext_Err.