Memo to:	J. Lohmeyer Chairman, X3T9.2
Memo from:	R. Snively Adaptec 691 S. Milpitas Blvd Milpitas, CA 95035 (408) 945-6789
Date:	July 7, 1988
Subject:	Review of revision 4, X3T9.2/86-109

REVIEW OF SELECTION OF INVALID LUN

Section 6.5.3, Page 6-14

I assume this is an editorial modification of the text that has been replaced. A few minor corrections are required.

Section 1:   The text is not clear that REQUEST SENSE will produce the sense key of Illegal Request and sense code of Invalid LUN. It is clear that it is an exception in not generating Check Condition, but it is not clear what the proper response is. I suggest re-installing the following sentence in the paragraph:

If the command is a REQUEST SENSE command, the sense information presented shall contain a sense key of ILLEGAL REQUEST with an additional sense code of INVALID LUN.

REVIEW OF TAGGED QUEUEING

A number of small errors and omissions crept into the edited version of the document. The following corrections are required.

Sections 5.5.2.8, 5.5.2.18, and 5.5.2.22:

All three of these sections replace the concept of an initiator/LU known to a target with an undefined function called a "logical thread" . I believe the original wording was preferable.

All three of these sections drop the "shall do" statement for reconnection with an invalid Tag Value. I believe the last sentence of the deleted text should be reincluded.

Section 7.1.11.3, page 7-48:

The Maximum Queue Depth parameter has disappeared. It seems to me that the function might still be useful as a guideline to initiators about the capability of a particular target.

137

Section 6.?:

The last six pages of X3T9.2/87-59 R4 have not been included in section 6. As a result, there are no descriptions or examples of proper tagged queueing operation. Those pages should be included as written in an appropriate section of 6, probably taking the location of 6.7.

Tables of Sense Keys and Additional Sense Codes:

The error code of UNIT ATTENTION, Queue Damaged, has not been defined. A sense key of 06 with an additional sense code of 2F was suggested, but any similar value would be appropriate.

CONTINGENT AND EXTENDED CONTINGENT ALLEGIANCE

Section 6.8, page 6-17

The invention of the term Logical Thread is probably misleading. System programmers will think of it as associated with a single transaction or task, involving multiple transactions and not related to the short-term connection formed by an initiator and a logical unit during a single transaction.

Section 6.9, Page 6-18

On line 6 of the first paragraph, the use of the word "target" is probably incorrect. The ECA is actually established between a particular initiator and a particular LUN. A target with two LU's may actually form 2 ECA's. Change "target" to "logical unit".

Section 6.9, Page 6-16

On line 12, "logical thread" should be replaced with the original text.

Section 6.9, Page 6-18

It has been proposed by the Working Group that the use of RELEASE RECOVERY should be restricted to a single defined sequence. The following text shall be added to the end of the first paragraph.

The RELEASE RECOVERY message out shall be sent using the following sequence of phases:

ARBITRATE:	by releasing initiator
SELECT:	of target to be released
IDENTIFY (Message Out):	of LU to be released
[Optional Messages Out]:	optional
RELEASE RECOVERY (Message Out):	releases recovery mode
BUS FREE	terminate process

Section 6.9, Page 6-16

The third paragraph should be changed to include RELEASE RECOVERY as one mechanism for terminating the ECA condition. The following text will be used.

The ECA condition shall be terminated by a RELEASE RECOVERY message, by an ABORT message, by a BUS DEVICE RESET message, or by a hard RESET condition.

Section 6.9, Page 6-18

Paragraph four is intended to allow ECA to be initiated by deferred error conditions established by the AEN protocol. The text should be restored as written.