"If column 2 is deleted, the check_end function (48.2.6.1.4) will insert E in lanes 2 and 3 of the column before 1 and in lanes 0 and 1 of column 1 because the column after the ||T|| column contains code groups other than /A/ or /K/.

This text is incorrect.

The argument in the response is that 48.2.4.2.3 allows for column 2 to be deleted (NOTE: but only in the unencoded domain) and that the packet loss occurs because the check_end function should propagate E's into the prior columns if the column after ||T|| contains code groups other than /A/ or /K/.

However, the check_end function operates in the encoded domain only, i.e. it checks for /A/ or /K/ following ||T||, not for I (Idle in unencoded domain), see 48.2.6.1.4. Therefore if column 2 is deleted in the unencoded domain, the deletion takes place after the check_end function and will not generate any E's.

For the given example, if column 2 is deleted in the unencoded domain, the IFG becomes:

<table>
<thead>
<tr>
<th>Column</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane0..</td>
<td>D</td>
<td>O</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Lane1..</td>
<td>T</td>
<td>O</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Lane2..</td>
<td>I</td>
<td>O</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>Lane3..</td>
<td>I</td>
<td>O</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

which does not violate any requirements of Clause 46 or 48.

If the XGXS receive process is followed by a 10GBASE-R PCS, and columns a and b are presented as the 64-bit input to the 64B/66B encoder then they represent an invalid combination and will be replaced by two columns of E. The packet will be dropped.

Also note that none of this affects the primary response of 3a that Clause 46.2.1 is ambiguous as to whether "other than idle" control symbols are counted towards determining the IPG value.

Suggested Remedy

Either delete the second part of the reponse to 3a (page 6 line 33 to page 7 line 8) or replace the text above with:

"If column 2 is deleted in the unencoded domain and the XGXS receive process is followed by a 10GBASE-R PCS, and columns 1 and 3 are presented as the 64-bit input to the 64B/66B encoder then they represent an invalid combination and will be replaced by two columns of E. Hence the packet will be dropped."

Response

ACCEPT IN PRINCIPLE.

Change 'If column 2 is deleted, ..' to read 'If column 2 is deleted in the unencoded domain followed by an encoded domain, ..'.
Draft says "Instead therefore they [a column] have to be considered either a reserved XGMII character or invalid XGMII character." Yet XGMII characters represent individual bytes, not whole columns. Also the state machine takes precedence, so I am not convinced that the standard contains justification for Alternative 1 (Option 2), the whole-column approach.

SuggestedRemedy
Please discuss. Consider removing Alternative 1 (Option 2).

Response
Response Status C
REJECT.

These two alternatives are specified in the text as described, this is not covered by state machine and the state machine would only take precedence if it conflicts with the text.

We haven't said how to choose between A, K and R for Option 2. 48.2.4.2 is very specific about "full columns", so it may not apply here.

SuggestedRemedy
As far as I can see, this choice is up to the implementer. Does the BRC think that all three options are OK? For instance, are there implications for false packet acceptance or deskew? If less than all three are OK, the BRC may wish to declare an ambiguity here.

Response
Response Status C
REJECT.

This comment is out of scope as it does not relate to text changed in the last recirculation.