ISSUE:

The Draft Amendment to IEEE Std 802.3-2015 IEEE P802.3bt DTE Power via MDI over 4-Pair Task Force (IEEE Draft P802.3bt/D2.4) has casually employed the use of the terms "active" and "non-active" without formally defining it. In our analysis of the IEEE Draft P802.3bt/D2.4, as shown with references below, we see certain usages of the term "active" to mean roughly "detected and powered", and, the term "non active" to mean "not in a powered state".

We are proposing to drop the usage of the terms "**active**" and "**non-active**", and suggesting replacement wording in the current draft where these terms are used, to describe the intended meaning via precise state diagram information. We believe this will add clarity and eliminate potential for mis-interpretation.

This analysis and suggestion <u>applies to comments #297 and #76</u> as well as some additional sections that are affected by the suggested changes.

ANALYSIS and SUGGESTIONS:

1. *Sec* **79.3.2.6a Dual-signature PD requested power value Mode A and Mode B** *P*80 *L*30

> ~~If Mode (X) is~~ **~~non-active~~** ~~while the other mode is~~ **~~active~~**~~, the~~ **~~inactive~~** ~~PD requested power value Mode (X) field value shall be set to 0.~~
> ...
> **Suggestion**: *Replace above sentence with:*
>
> *"The PD requested power value Mode (X) field shall be set to 0 when Mode (X) is not in POWERED or POWER_UPDATE."*

2. *Sec* **145.2.5.1.1 Type 3 and Type 4 specific overview and timing** *P*112 *L*48

> *"…*
> *If the connected PD is identified as dual-signature, the top level state diagram will proceed to the SISM_START state and remain in that state, at which point the semi-independent state diagrams for the Primary and Secondary Alternative become active.*
> *…"*

The usage of "active" here is ok, and not applicable to the concerns addressed in this note.

3. *Sec* **145.2.5.4 Variables** *P*116 *L*11

> *"…*
> *Measured IClass is not invalid or is less than IClass_LIM min during do_classifica-tion or this function is not active.*
> *… "*

The usage "not active" here is ok, and not applicable to the concern addressed in this note.

4. *Sec* **145.2.5.4 Variables** *P*116 *L*21 & *L*31

> *"…*
> *Measured IClass over the Primary Alternative is not invalid or is less than IClass_LIM min during do_classification_pri or this function is not active.*
> *…*
> *Measured IClass over the Secondary Alternative is not invalid or is less than IClass_LIM min during do_classification_sec or this function is not active.*

…"

The usages of "not active" in this section on referenced lines are ok, and not applicable to the concerns addressed in this note.

5. Sec **145.3.6 PD classifications** *P***188** *L*16

   "… A PD that is assigned to a Class lower than the Class it requested shall provide the user with an active indication if underpowered. The method of active indication is left to the implementer. …"

   The usages of "active" in this section is ok, and not applicable to the concerns addressed in this note.

6. Sec **145.5.3.6.2 Variables** *P***228** *L*37, *L***43,** *L***48,**

   *P***229** *L*1, *L***18**

   Suggestion*:* In this section replace the 5 occurrences of the sentence:

   *"~~When a PD mode is~~ **not active***,* ~~the value~~ shall be ~~set to zero~~.*"*

   on lines mentioned above with*:*

   "The value shall be set to 0 when Mode (X) is not in POWERED or POWER_UPDATE."

7. Sec **145.5.3.7.2 Variables** *P***232** *L*29, *L*35, *L***49,** *L*46

   *P***233** *L***8**

   Suggestion: In this section replace the 5 occurrences of the sentence:

   "~~*When a PD mode is*~~ **not active***,* ~~*the value shall be set to zero.*~~*"*

   on lines mentioned above with:

   "The value *shall be set to 0 when Mode (X) is not in POWERED or POWER_UPDATE."*