Information (not part of baseline):

The objective of this baseline is to remove redundant and conflicting definitions of V_{PSE} and V_{PD} from Clause 145. To accomplish this, contextual definitions of V_{PSE} and V_{PD} are defined in the local glossary, 145.1.3.

For V_{PSE}, this is the general approach:

- *When V_{PSE} is used in the context of a single-signature PD operating in 4-pair mode, the measurement is made between any positive conductor and any negative conductor.*
- *In all other cases (dual-signature PD, 2-pair operation, or the PD signature is as-yet unknown), the measurement is made between any positive conductor of a pairset and any negative conductor of the corresponding pairset, for the given PSE Alternative.*

For V_{PD}, this is the general approach:

- *When V_{PD} is used in the context of a single-signature PD, the measurement is made between any positive conductor and any corresponding negative conductor of the pairset with the highest voltage.*
- *When V_{PD} is used in the context of a dual-signature PD, the measurement is made between any positive conductor and any negative conductor of the given PD Mode.*

Note that, for the purposes of specification compliance, "any" has the usual implication that all combinations may be tested and all combinations shall conform.

A "note" has been removed from the PD Input Voltage section: "$V_{PD} = V_{PSE} – (R_{Chan} \times I_{Port\text{-}2P})$". This note attempts to quantify the relationship between V_{PSE} and V_{PD} as a function of cabling losses. To understand this note, the reader would need to understand the complications added by PD Signature configuration and powering over 2 pairs or 4 pairs; it is a cryptic note of limited value. In fact, $V_{Port\_PD\text{-}2P}$ accounts for the losses in the cabling plant and that is all the reader needs to know.

Finally, over the course of preparing this remedy, it became apparent that a reference to Equation 145–29 is missing from 145.3.8.10, and so that has also been added to the baseline.

Baseline Text:

Modify text on P102 as follows:

V_{PD} is the voltage at the PD PI. For a single-signature PD, V_{PD} is measured between any positive conductor of a pairset and any negative conductor of the corresponding pairset, for the pairset with the highest voltage. For a dual-signature PD, V_{PD} is measured between any positive conductor of a pairset and any negative conductor of the corresponding pairset, for the given Mode.

V_{PSE} is the voltage at the PSE PI. When connected to a single-signature PD and operating in 4 pair mode, V_{PSE} is measured between any positive conductor ~~of a pair~~ and any negative conductor ~~of the corresponding pair~~. When connected to a dual-signature PD, when operating in 2 pair mode, or when the PD signature has not yet been identified, V_{PSE} is measured between any positive conductor of the pairset and any negative conductor of the corresponding pairset, for the given Alternative.

Replace all instances of V_{PSE} in equation definitions as follows (*removed text is covered by definition of V_{PSE}*):

V_{PSE} is the voltage ~~on the pairset~~ at the PSE PI as defined in 145.1.3.

Modify the definition of V_{PD}_mode(X) as follows:

~~The voltage at the PD PI measured between any positive conductor and any negative conductor~~ V_{PD} of the Mode X pairset; see 145.1.3.

Delete the following text on P195, L20:

~~Note, $V_{PD} = V_{PSE} - (R_{Chan} \times I_{Port\_2P})$.~~

Add the following text on P201, L13:

"…and shall not exceed $I_{Peak\_PD\text{-}2P}$, as specified by Equation (145–29) on any pair when PD PI pairs of the same polarity…"