Remedy for Comments 30 and 33

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Presentation Objectives

- Recap objectives for IEEE P802.3bu

- To propose a remedy to the problem uncovered during discussion of comments 30 and 33:
  - To propose a remedy that prevents a PD from being damaged when it is connected to an incompatible, non-classifying PSE.

Recap of Project Objectives

- Specify a power distribution technique for use over a single twisted pair link segment.

- Allow for operation if data is not present.

- Support voltage and current levels for the automotive, transportation, and industrial control industries.

- Do not preclude compliance with standards used in automotive, transportation, and industrial control industries when applicable.

- Support fast-startup operation using predetermined voltage/current configurations and optional operation with run-time voltage/current configuration.

- Ensure compatibility with IEEE P802.3bp (e.g., EMI, channel definition, noise requirements).

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Fault Tolerance Requirements Currently in the Draft

- 104.6.2 Fault tolerance states that:
  - "The output conductor pair of the PI shall meet the fault tolerance requirements of the appropriate specifying clause. (See clauses 96 and 97)."

- 96.8.3 MDI fault tolerance states:
  - "The wire pair of the MDI shall, under all operating conditions, withstand without damage the application of short circuits of any wire to the other wire of the same pair or ground potential or positive voltages of up to 50 V dc with the source current limited to 150 mA, as per Table 96–6, for an indefinite period of time."

Table 96-6 from 96.8.3

Table 96–6—Connection fault

BI_DA+	BI_DA-
No fault	No fault
BI_DA-	BI_DA+
Ground	No fault
No fault	Ground
+50 V dc	No fault
No fault	+50 V dc
Ground	+50 V dc
+50 V dc	Ground

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Proposed remedy for Clause 104

- Add the following to 104.6.2:

  ~~The output conductor pair of the PI shall meet the fault tolerance requirements of the appropriate specifying clause. (See clauses 96 and 97).~~

  <u>The PI shall meet the fault tolerance requirements as specified in 96.8.3.</u>

  <u>A PD shall not be damaged when connected to any PSE as defined in sub-clause 104.4.</u>

Questions?