

DRAFT – FOR DISCUSSION ONLY

PROPOSED REGULATORY FOOTPRINT FOR PIRT PANEL RESULTS

I. **Background:**

PIRT Panel (NUREG/CR-7150, Volume One)

General description

Definitions

Incredible, Implausible, “High Consequence”

II. **Impact on Fire Protection Programs:**

A. **Possible industry consideration in current circuit analysis:**

Current Transformers (CTs) (further research needed)

Ignition of a secondary fire from an open circuited CT secondary circuit with turn ratios greater than 1200:5

Ground Fault Equivalent Hot Short

Implausible – “High Consequence” Scenarios

Control Power Transformers (CPTs)

NFPA 805 applicants

B. **Possible reduced consideration:**

Incredible Scenarios

Incredible scenarios may be subject to reduced consideration.

- i) Source cable induces a spurious operation in a target cable (e.g. double break TS to TS, single & double break TP to TS) (*TS = Thermoset; TP = Thermoplastic*)
- ii) Spurious operation of a three-phase AC motor due to proper polarity hot shorts on three-phase power cabling
- iii) Spurious operation of DC compound-wound motor due to proper polarity hot shorts in the motive/power cabling
- iv) Ignition of a secondary fire from an open circuited CT secondary circuit with turn ratios of 1200:5 or less

Implausible – non-“High Consequence” Scenarios

Similar to Incredible in that consideration may be reduced

C. **Current Guidance Amplified:**

Multiple High Impedance Faults (MHIF):

III. **Regulatory Guidance Path Forward**

FAQ closure memo to be incorporated into RG 1.189 and RG 1.205 (NRC), NEI 04-02 and NEI 00-01 (NEI)