

Guidelines for Handling New Work Submittals of Circuit Integrity (CI) Cables

The following program requirements apply to Subscribers who wish to have cables tested to UL 2196, Tests for Fire Resistive Cable, and certified as Circuit Integrity(CI) designated cables:

Sample Selection:

In general, since the interrelationship between all variables of a cable construction is not understood by all parties and is addressed in the standard, at this time it will not be possible to conduct representative testing at this time. Therefore, only the specific cable construction tested and found compliant will be considered to be eligible for Listing. Items considered comprising a cable construction include:

- Number of Conductors (multi-conductor vs. single conductor)
- Conductor size
- Conductor Type (solid vs. stranded)
- Voltage rating
- Conductor lay (twisted vs. parallel)
- Shielded vs. unshielded
- Grounding Conductor (bare or insulated)

There will be no allowances for alternate or optional materials unless each cable design is specifically tested.

The cable will be installed by UL laboratory staff using the manufacturer's installation instructions, where the exact installation methods are to be detailed (such as spacing between cable supports, the type of supports, and the like). The certification will reflect exactly what was tested. Each system orientation (vertical/horizontal) that is requested will be tested.

Sample Size

A minimum of 5 samples of each construction will be tested and all 5 samples must achieve compliant results to be considered eligible for certification.

Certification Report / Follow- Up Procedure

A detailed description of the construction of the cable including each of the material grade designations and manufacturer of the material will be included in the FUS Procedure.

A cable design drawing and a complete material specification document will be requested so that the cable construction can be described in detail, including its individual components and raw materials. Below is a list of common (but not comprehensive) cable attributes that will be requested and described in the FUS procedure:

- Jacket- thickness, material designation/formulation, including raw materials by manufacturer and part number
- Conductor—type/grade of copper or other alloy (if used)

- Insulation- thickness, material designation/formulation, including raw materials by manufacturer and part number
- Any other cable material, such as a shield, drain wire, rip cord, reinforcing materials, etc. will require a detailed description, by type, dimensions, material description, manufacturer and part number

The FUS procedure will also contain a copy of the manufacturer's installation instructions.

The “-CI” will be required to be part of the type designation of the cable and may not be added as a suffix.

The cables will be described in a separate volume of the FUS Procedure.

Follow – Up Testing

Every six months:

Five (5) samples of each of the cables described in the FUS procedure will be selected by UL Field Services staff and subjected to the UL 2196 test. If cable is not available, the authorization to utilize UL's certification mark on the cable will be suspended until samples for test are available and found to be compliant.

In addition, a one foot long sample of each cable type will also be selected by UL Field Services staff and sent to UL laboratory facilities for a detailed analysis. The analysis report will be compared to the previous sample analysis and stored as a test reference.