

6200201 GROUNDING AND LIGHTNING PROTECTION
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (4-30-15)

I thought we were removing metal lids on pullboxes.

Response: The use of metal pull box lids was removed from 635 Pull, Splice and Junction Boxes. The reference to metal covers was left in 620 is to ensure any pull boxes that include metal covers that fall within the current or previous specifications are grounded properly to ensure safety of the maintenance personnel or the public.

No change made.

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Comments: (5-5-15)

We have concerns about the ground rods. The specs changes to allow certain items the option to include a single ground rod assembly, but based on the specification it is not clear what the requirements of a single ground rod assembly will entail, 20' of length, 40' etc. The paragraph above indicates that if the ohms cannot be resistance cannot be achieved then install a new ground rod 40' away, yet the heading below states single ground rod. Also, in general the 80' maximum has created problems in the past. In South Florida, there have been times that the contractor will not meet the required resistance and is only required to install 80' total feet of ground rod.

Response: A ground rod assembly is defined in section 620-2.2.
No change made.

The 40 ft reference in section 620-3.2 is the required distance between ground rod assemblies and is for elements 1 through 4 listed in the first paragraph. Single ground rod "assemblies" as defined in 620-2.2 are allowed for certain elements as listed for elements 1 through 7 in the last paragraph of 620-3.2.

No change made.

The 80 ft maximum was incorporated into the specification a few years ago to resolve issues where an excessive number of ground rods were being installed and charged to the Department to obtain resistance levels that could sometimes never be achieved.

No change made.

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Comments: (5-14-15)

Modify Section 620-3.1 by adding the following sentence to the last paragraph, "The NFPA requirements do not apply to lighting systems."

Response: Requested change made

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Comments: (5-26-15) Comments from District 4 - Treasure Coast Operations

1. 620-2.6 Air Terminals: (Additional information needed as it relates to protection from lighting strikes. Marking and application guide on Lighting protection issued by UL -2015 also require adherence to Article 230, 250, 280, 800 and 810, of the NEC. Please see page 2- Introduction) Consider modifying the spec to read as

“Use air terminals that comply with UL 96 A and NFPA 780 standards and are listed by a NRTL. Also comply with article 230, 250, 280, 800 and 810, of the NEC.”

Response: The NEC articles requested for addition to the specification are very broad and deal with common bonds to building electrical systems. At this time we feel reference to UL 96A and NFPA 780 is sufficient, however, the Department will look into the additional requirements such as what is suggested as part of a current research project that is investigating improvements to FDOT lightning protection requirements along with air terminal use. No change made.

2. 620-2.7.1: Some utility companies provide power at 440 Volts. Therefore the spec may be modified to read as “620-2.7.1 SPD for 120 Volt or 120/240/ 440 Volt Power

Response: SPDs specified in this section are intended to cover voltages typically used for traffic control signals and devices, which are the voltages indicated. No change made.

3. The acronym ITS should be defined similar to Approved Product List (APL) and Surge Protection Device (SPD). (Chad Rucks/Desk: (772) 429-4938/chad.rucks@dot.state.fl.us).

Response: Requested change made.
