

Top 10 – Electrical Review Comments

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1. **Arc Flash Study and Labels [FDG 7.6.1.1.3]:** An arc-flash study shall be completed for all new buildings and for service-entrance changes. The study shall be performed using SKM Power Tools and a copy of the arc flash study provided for OUBO and FM review. A copy of the final SKM project files shall be submitted to UVA.
2. **GFCI [NEC 210.8(B); 422.5]:** All kitchen 120-volt receptacles shall be GFCI. Receptacles within 6 ft. of a sink shall be GFCI. Drinking fountains shall be protected by GFCI.
3. **Light Pollution [FDG 4.6.1.1.3]:** A light pollution study is required for all capital projects.
4. **Services [FDG 4.6.2.3.5]:** Service conductors from the transformer to the building shall be concrete encased.
5. **Lightning Protection [FDG 7.6.1.12.]:** For new facilities, roof replacements and solar array installations, lightning protection shall be provided based on the risk factor as determined using NFPA 780. The lightning protection system shall be certified by a master certificate inspection per *UL96A – Standard for Installation Requirements for Lightning Protection Systems*. Provide a copy of the master label inspection to OUBO prior to the final electrical inspection.
6. **Panelboards [FDG 7.6.1.3.2]:** All new panels shall have 20% spare capacity. All panelboards shall have an internal main breaker and manufacturer-installed guards that provide a dead-front condition with the panelboard cover removed.
7. **Calculations [FDG 7.6.1.1.2; HECOM 8.8]:** Provide point-by-point site lighting and interior lighting (normal and emergency) foot candle calculations, building load, and generator load calculations with CD submittal. For renovations, provide metered load data and tabulations of removed and installed load.
8. **Identification of systems [NEC 700.10(A); FDG 7.6.1.1.1]:** Components of all normal, standby and emergency electrical systems shall be identified with permanent marking. Emergency systems shall have permanent and readily identifiable labels – with a permanent red dot on lighting fixtures, red device body for receptacles, etc.
9. **Personnel Doors [NEC 110.26(C)(3)]:** For equipment rated 800A or more that contains overcurrent devices, the room egress door must open in the direction of egress and be equipped with panic hardware.
10. **Wiring [FDG 7.6.1.5]:** All power and fire alarm wiring shall be in conduit. Minimum conduit size shall be ¾” EMT. Refer to this section of the FDG for restrictions on the use of MC cable.

END OF DOCUMENT

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