



DEPARTMENT OF  
GENERAL SERVICES

**DIVISION OF ENGINEERING AND BUILDINGS**

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## **DEB Notice 120512**

( Effective: 12/05/2012 )

### **Lightning Protection Systems**

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#### **I. Purpose of this Notice:**

A lightning protection master label confirms that a facility meets UL96A or equivalent, providing assurance that the facility has been made reasonably safe from lightning damage. This includes the structure, the electrical service entrance, and all other services entering the building. In several recent inspections, auxiliary systems (telephone, cable, satellite, security, network feeds, fiber optic loops, etc) installed by others were not ready for inspection and prevented the issuing of a full master label. This requires a second inspection once the installation is complete at additional expense before the final certificate of occupancy is issued.

#### **II. Related Construction & Professional Services Manual (CPSM) Revisions:**

Replace Section 6.16.1 of the 2012 Edition of the CPSM, dated September 15, 2012, in its entirety as follows:

##### **6.16.1 Lightning Protection Systems**

###### **6.16.1.1 Determining if a Lightning Protection Systems is Required**

The most recent edition of NFPA 780 shall be used to evaluate lightning protection systems, and to determine if a system is required. For new facilities, roof replacements, and solar array installations the A/E shall evaluate the building to determine if a lightning protection system is required. A lightning protection system is not required where either:

- A. ten times the Annual Threat of Occurrence ( $10 \times Nd$ ) is less than the Tolerable Lightning Frequency (NC), as calculated in the Simplified Risk Assessment (L.5).
- B. the Total Risk (R) is less than the maximum Tolerable Risk (RT), as calculated in the Detailed Risk Assessment, for each type of loss relevant to the structure (L.6).

Provide a note on the project cover sheet or electrical cover sheet specifying the risk factors and specify if a lightning protection system is required. Risk evaluation documentation shall be made available upon request.

Photovoltaic array installations shall be provided a minimum of a lightning arrester either at the array or at the output of the inverter to protect downstream equipment regardless of the risk factor.

#### **6.16.1.2 Lightning Protection System Labeling and Certification**

Initial certification or re-certification by inspection is required for all lightning protection systems which are installed or modified as part of a construction project. The inspection shall be performed by either:

- A. Underwriters Laboratories under the most recent edition of UL 96A: Standard for Installation Requirements for Lightning Protection Systems.
- B. A Lightning Protection Institute certified inspector under the appropriate Lightning Protection Institute master certificate inspection.

The inspection shall certify the final installation to obtain a master label for all elements to include the facility and services entering the facility.

The installation contractor shall provide a third party master label inspection to the agency prior to project close out. Should the contractor not be able to obtain a complete master label, the agency shall provide the remaining certification at their expense prior to issuance of a final Certificate of Use and Occupancy or Building Permit Close Out. These are typically part of UL 96A, Chapter 13. Planning and coordination of inspections shall be conducted during the design phase, and shall be coordinated with the agency.