



**NEW YORK STATE DEPARTMENT OF STATE
Division of Code Enforcement and Administration
One Commerce Plaza - 99 Washington Ave
Albany, NY 12231**

Phone : (518) 474-4073
www.dos.state.ny.us

Fax : (518) 486-4487
E-mail: info@dos.state.ny.us



T E C H N I C A L B U L L E T I N

Topic: Electrical Systems and Equipment in Flood-damaged Structures

Flood waters are not just water; the water may also be contaminated with chemicals, sewage, oil and other debris. Any or all of those can affect the integrity and performance of electrical equipment, either immediately or eventually.

Question: Do electrical systems and equipment submerged through flooding have to be replaced?

Answer: Section 604.3 of the *2010 Property Maintenance Code of New York State* (PMCNYS) requires that where an electrical system is a hazard to the occupants or the structure because of deterioration or damage, the system **MUST** be repaired and the hazard eliminated. Section 605.2 of the PMCNYS requires that all electrical equipment, wiring and appliances be maintained in a safe and approved manner. If an electrical system and/or equipment submerged through flooding is damaged, deteriorated, or can no longer be determined to be safe, it must be repaired and, if recommended, replaced.

For more information, the publication *Evaluating Water-Damaged Electrical Equipment* by the National Electrical Manufacturers Association (NEMA), contains practical guidelines and understandable explanations about the salvageability of electrical equipment.

Question: When evaluating submerged electrical systems and equipment, who is qualified to determine what is damaged and must be removed, and what is not damaged and may remain?

Answer: Electrical contractors, licensed electricians (where required), third-party electrical inspectors, and utility company representatives would be considered qualified, having the training and knowledge of electrical systems and equipment necessary to evaluate damage caused by contact with flood waters. The code enforcement official may also recognize other individuals as being qualified based on other criteria.

Question: Portions of the electrical system in a dwelling were submerged and have to be repaired. What are the requirements for Code compliance?

Answer: Appendix J Section J4 of the *2010 Residential Code of New York State* (RCNYS) contains the provisions for repairs for to one- and two-family dwellings and townhouses.

Section J401.3 requires that in a flood hazard area, if the repairs will be a “substantial improvement,” the building must comply with the new construction provisions of Section R324. Section R324.1.5 requires that electrical systems, equipment and components replaced as part of a substantial improvement meet the requirements of the section, including being located at or above the design flood elevation plus freeboard as specified in Section R324.1.3.3. An exception allows electrical systems, equipment and components to be located below the design flood elevation provided specific conditions are met.

If the repairs will NOT be a “substantial improvement,” compliance with Section J407 is required.

Question: **Portions of the electrical system in a building were submerged and have to be repaired. What are the requirements for Code compliance?**

Answer: Chapter 5 of the *2010 Existing Building Code of New York State* (EBCNYS) contains the provisions for repairs to buildings that aren't one- or two-family dwellings or townhouses. The requirements in Chapter 5 are similar to those in Appendix J - repairs to buildings in a flood hazard area that are a “substantial improvement” will require compliance with Section 1612 of the *2010 Building Code of New York State* (BCNYS); repairs that are not a substantial improvement must only comply with Section 507 of the EBCNYS.

Source Documents: 19 NYCRR 1226 - *2010 Property Maintenance Code of New York State* (PMCNYS)
19 NYCRR 1220 - *2010 Residential Code of New York State* (RCNYS)
19 NYCRR 1227 - *2010 Existing Building Code of New York State* (EBCNYS)
19 NYCRR 1221 - *2010 Building Code of New York State* (BCNYS)
Evaluating Water-damaged Electrical Equipment - National Electrical Manufacturers Association (NEMA)

For Additional Information:

NEMA - <http://www.nema.org/>
Section 3.3 - New and Substantially Improved Buildings - Electrical Systems. Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems - FEMA
(http://www.fema.gov/pdf/fima/pbuffd_chapter_3-3.pdf)