



Safety After The Storm

UL Offers Assistance with Evaluating Water-Damaged Equipment

UL offers services to evaluate industrial/commercial equipment that have been water damaged as a result of a storm or flooding, and that may have been subjected to a reconditioning process. This service is being offered without cost to the Authorities Having Jurisdiction (AHJ) in those areas affected by natural disasters.

Key considerations for water-damaged equipment

When evaluating water-damaged equipment, the following factors should be considered:

- The extent of the water damage
- The effect of contaminants on the equipment
- The effects of corrosion
- The overall age and condition of the equipment
- The function the equipment serves and where it will be used (life safety vs. general control, residential vs. industrial/commercial)

Reconditioning water-damaged equipment

Certain types of industrial and commercial equipment are constructed in such a manner that allows trained personnel to recondition the equipment if damaged by water. It is important that such reconditioned equipment be subject to appropriate controls. This includes a thorough review of the:

- Reconditioning process
- Inspection with basic field testing of the reconditioned equipment, if applicable

In addition to the electric shock and fire hazards associated with water-damaged equipment, chemical and biological hazards also exist. Therefore, it is imperative that the equipment be reconditioned by the original equipment manufacturer, by personnel qualified by the OEM or by recognized third-party businesses with established expertise. It is strongly recommended that the OEM develop the reconditioning process within a formal risk-management system.

For a complete list of equipment for which reconditioning is possible and for which reconditioning is not recommended, please refer to the NEMA Publication Guidelines for Handling Water-Damaged Electrical Equipment.

Types of equipment suitable for reconditioning

The following list indicates some of the equipment for which reconditioning is possible.

Note that while the overall equipment may be reconditioned, many of the components may need to be replaced.

- Enclosed switches (including some transfer switches)
- Busways
- Panelboards
- Fire pump controllers
- Manual and magnetic motor controllers
- Motor control centers
- Switchboards and switchgear
- Liquid-filled and cast-resin transformers
- Motors
- Industrial and commercial battery chargers
- Commercial refrigeration units
- Equipment similar to the above that is suitable for hazardous locations

The following list indicates equipment that should not be reconditioned and should be decommissioned:

- Gas-fired equipment
- Appliances (washing machines, ovens, refrigerators, toasters, televisions, etc.)
- Solid-state controllers
- Molded case circuit breakers
- Fuses
- Dry-type transformers
- Receptacles, GFCIs, AFCIs and switches
- Transient voltage surge protective devices
- Wiring not suitable for wet locations
- Solid-state or electronic equipment such as controls, signaling and security

For more information, visit www.ul.com/stormsafety



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Evaluating damaged and reconditioned equipment water damaged by a hurricane

Temporary use of critical equipment

While it is UL's goal to assist the AHJs by evaluating the suitability of the long-term use of reconditioned equipment, UL recognizes that some types of critical equipment may need to become temporarily operational until replacement equipment can be installed. This equipment includes, but is not limited to, food refrigeration units and generators. In these cases, the OEM should ensure that any residual risks are clearly identified. Food refrigeration equipment must also be sanitized after a complete cleaning.

Due to the difficulties in refurbishing and monitoring equipment in residential settings, it is recommended that all water-damaged residential equipment be decommissioned and replaced with new equipment.

Contact

UL will be contacting AHJs in the boroughs and counties that have been affected by a hurricane. UL Field Evaluation Services can be contacted at (877).854.3577 or fieldevaluations@ul.com. For specific inquiries on electrical evaluations, contact Chuck Mello at (360).817-5578 or chuck.mello@ul.com. For sanitation evaluations, contact Jonathan Brania at (919).549.1768 or jonathan.brania@ul.com, or Gary Coleman at (919).549.1732 or gary.coleman@ul.com.

About UL

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