



20TH ANNUAL
**Electrical
Safety, Reliability and
Sustainability**
Conference &
Exhibition

April 6-9, 2017
Island Hotel
Newport Beach
Newport Beach, CA
www.pearl1.org





CODES AND STANDARDS UPDATE

Dan Hook, Western Electrical Services
Howard Herndon, SouthWest Electritech
Services

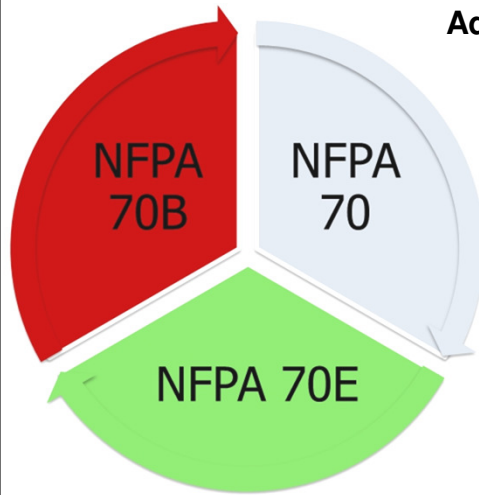
Overview

- NFPA 70 (NEC)
- NFPA 70B
- NFPA 70E
- CSA Z463
- RIC
- PEARL EERS
(Electrical Equipment
Reconditioning
Standard)



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Electrical Safety System



Additional Industry Publications

- NFPA 99, 101, 110
- NETA ATS-2017
- NETA MTS-2015
- PEARL Reconditioning
- NEMA
- IEEE
- UL
- ANSI

NFPA 70 (NEC)

110.3.A.1

Informational Note

No. 1: Equipment may

be new,

reconditioned,

refurbished, or

remanufactured.



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NFPA 70 (NEC)

110.21.A.2

Reconditioned Equipment.

Reconditioned equipment ***shall be marked with the name, trademark, or other descriptive marking*** by which the organization responsible for reconditioning the electrical equipment can be identified, ***along with the date*** of the reconditioning.



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NFPA 70 (NEC)

110.21.A.2

Reconditioned equipment shall be identified as “reconditioned” and approval of the reconditioned equipment shall not be based solely on the equipment’s original listing.



- Key Items Required on Labels:
 - Reconditioned Equipment
 - Name and or Trademark
 - Date of Reconditioning

SouthWest Electrotech Services
Electrical Systems Technical Services

“Servicing the Western States”
1-888-296-0625
Phone: (702)683-5510
Fax: (702)207-6382
Corporate Office:
2011 Regal Ave., Suite 100
Las Vegas, NV 89119
www.sweservices.com

ENCLOSURE TYPE VOLTS HERTZ

MAXIMUM SUPPLY RATING AMPERAGE @ W SYSTEM

MAXIMUM SECTION RATING AMPERAGE @ W SYSTEM

MFG SO # SWES SO # SECTION #

RECONDITIONED SWITCHBOARD

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NFPA 70 (NEC)

Informational Note:
Industry standards are available for application of reconditioned and refurbished equipment. Normal servicing of equipment that remains within a facility should not be considered reconditioning or refurbishing.



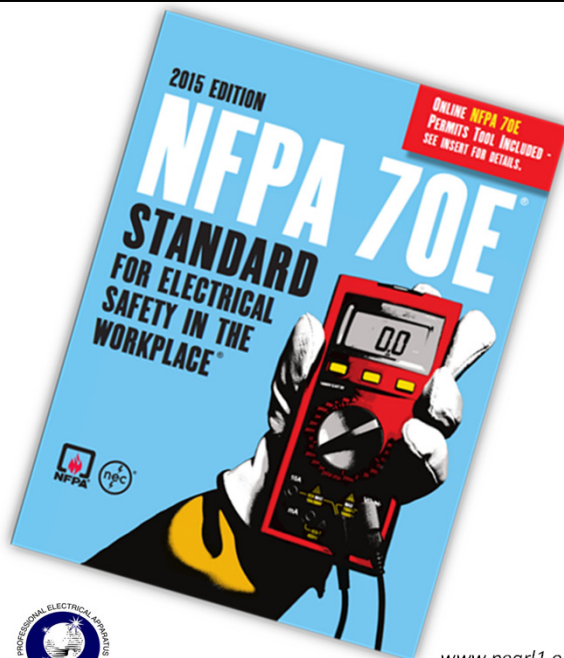
Professional Electrical Apparatus Reconditioning League
ELECTRICAL EQUIPMENT RECONDITIONING STANDARD
 for
 Electrical Apparatus and Equipment used in
 Commercial and Industrial Applications



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NFPA 70E

Safety Related
 Maintenance
 Requirements
 200.1(3)
Repair or replacement of individual portions or parts of equipment shall be permitted without requiring modification or replacement of other portions or parts that are in a safe condition.



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NFPA 70B

8.6.3 Equipment can be reconditioned under rebuild programs, provided the **reconditioning follows established guidelines.**



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NFPA 70B

8.6.4 The rework, remanufacturing, or retrofitting process can be conducted by the original manufacturer or by another party with **sufficient facilities, technical knowledge, and manufacturing skills** (as evaluated by an **accepted certification organization.**)



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NFPA 70B

8.6.5 Refurbished or remanufactured equipment should be **marked** to identify it as such.



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NFPA 70B

8.6.6 When repairing, rebuilding, and/or remanufacturing equipment, the work should be conducted by a **qualified person or organization** to assure that no changes are made to the equipment that might prevent the equipment from meeting the applicable performance and safety requirements used to list the equipment.



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NFPA 70B

8.6.7 The AHJ can assess the acceptability of modifications to determine if the modifications are significant enough to **require re-evaluation** of the modified product by the organization that listed the equipment.

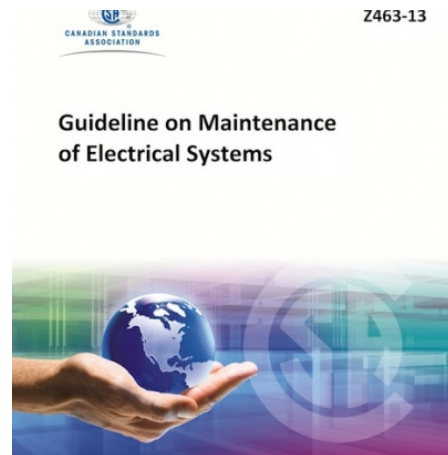


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CSA Z463

Proposed Changes:
 2013 Edition was a guideline. The anticipated 2018 Edition will be a **standard** covered under the CSA definition of such.



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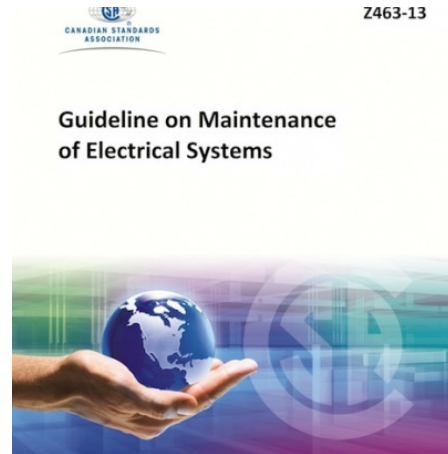


CSA Z463

Proposed Language:

Equipment ***can be reconditioned*** provided the reconditioning follows ***established guidelines***.

The reconditioning process can be conducted by the original manufacturer or by another party with sufficient facilities, technical knowledge, and skills ***as evaluated by an accepted certification organization***.



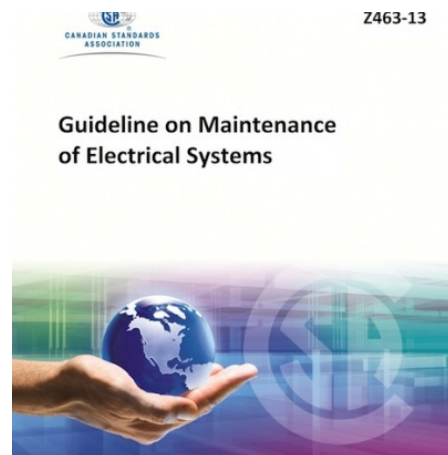
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CSA Z463

Proposed Language:

Reconditioned equipment ***shall be marked*** to identify it as such.

Personnel performing reconditioning activities ***shall be qualified*** in such activities.



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RIC

Remanufacturing Industries Council

strategic alliance of businesses and academic institutions that works across industry sectors to support the entire remanufacturing industry through a combination of collaboration, education, advocacy and research.



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RIC

Remanufacturing Industries Council

Specification for the Process of Remanufacturing

This standard was developed by the Remanufacturing Industries Council (RIC) and approved by ANSI on February 2, 2017



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PEARL EERS

Changes/Additions:

- 1000 Standard Terms & Warranties
- 1010 Scope of the Standard
- 1020 Informational Label
- 1030 Reconditioning Test Label



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PEARL EERS

Changes/Additions:

- 1040 Test Reporting
- 1050 Qualified Technician Statement
- 1060 References
- 1070 PEARL Test Equipment and Calibration Standard
- 1080 Counterfeit Product Statement



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PEARL EERS

Changes/Additions:

Each equipment type
is a now a section

The entire compilation
of sections is renamed
to a standard

Specified voltage
ranges vice LV and MV



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PEARL EERS

Changes/Additions:

One section removed
entirely

Section 3110 Non-
Refill Style Fuses
Cannot be internally
inspected to
determine damage or
suitability for
reconditioning.

Cannot be
reconditioned



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PEARL EERS

Changes/Additions:

Reference to specific ANSI/NETA MTS sections for **testing to be performed**

Reference to specific ANSI/NETA MTS for **evaluation of test results**

Reference to manufacturers' published data when available.



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PEARL EERS

Progress:

resubmitted for 3rd round of public review and consensus body voting

Attempt to resolve any negative comments (15 Days)

Official voting submitted to ANSI



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PEARL EERS

Progress:

ANSI review

ANSI declaration as an
American National
Standard

Publication of
ANSI/PEARL EERS-
2017 within 6 months



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PEARL EERS

Future:

5-year review required

Revise

Reaffirm

Withdraw



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Questions?

