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Labour and Advanced Education

ELECTRICAL BULLETIN 2014-03

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Subject: Assembly of individual low voltage equipment

Question: Does the assembly and installation of low voltage equipment, particularly Class 2 rated equipment or equipment fed from a Class 2 power supply, or any combination thereof, in an enclosure require the overall assembly to be approved.

Answer: Yes, the overall assembly of such equipment needs to be approved from the factory/manufacturer or have a special inspection performed by an accredited inspection body (IB).

This bulletin applies to the assembly and installation of two (2) or more such individual low voltage components in an enclosure to form an overall electrical assembly even where the only devices within the enclosure are Class 2 rated or fed from an external Class 2 power supply or any combination thereof.

Such an assembly may be used to perform, <u>but not limited to</u>, energy management control of systems such as heating, air conditioning or lighting.

Any assembly of low voltage components in an enclosure shall have the enclosure properly identified as to the items it is controlling.

Designers/installers of an energy management control system or similar assembly should consider the use of such a system to ensure it does not create an unsafe situation by affecting, overriding or ensuring the continuity of emergency power, life safety systems, intermediate or critical care systems in a health care facility or disconnection of power to any essential device that may be interlocked with another device.

An energy management control system or similar assembly shall not cause a branch circuit, feeder or service to be overloaded at any time.

The use of special inspections is limited in quantity and not to be used to forgo the full certification approval.

A special inspection may not be performed for any installation in a hazardous location as identified in sections 18 or 20 of the Canadian Electrical Code, Part 1 (CEC).

For requirements that pertain to the assembly of individual electrical components not covered in this bulletin refer to Electrical Bulletin 2002-03.

Notes:

- 1. Any equipment found in violation of this bulletin or the CEC may be ordered de-energized.
- 2. The special inspection shall be performed prior to the installation of the low voltage equipment assembly.
- 3. Where low voltage equipment is interconnected to the building electrical/mechanical systems an electrical permit is required.

This bulletin may be subject to revisions at any time.

Review Dept. of Labour Electrical Bulletins at:

http://novascotia.ca/lae/electricalsafety/electricalbulletins.asp

Review NSPI Electrical Bulletins at:

https://www.nspower.ca/en/home/for-my-home/electrical-inspections/default.aspx

Any deviations or questions concerning this Bulletin may be forwarded to the: Provincial Chief Electrical Inspector - David MacLeod, C.E.I., P.Eng. at 902-424-8018 or by email - macleodd@gov.ns.ca.