

<p style="text-align: center;">MINIMUM REQUIREMENTS RETROFIT OF LUMINAIRES TO INCLUDE THE USE OF LIGHT EMITTING DIODES</p>

This Bulletin provides clarification on permit and certification requirements for work performed on light fixtures (luminaires) when converting them to the light emitting diode (LED) type. Qualified persons must apply new labels to the luminaire or the lamp when retrofitting luminaires. Procedures for installations within BCSA jurisdictions are provided below.

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Permit Requirements

Under Section 11 of the Electrical Safety Regulation, a permit is required for electrical work, such as:

- replacement of complete luminaires
- upgrades of existing luminaires

Subject to Section 18 of the Electrical Safety Regulation, a permit would not normally be required for:

- replacement of lamps
- electrical work required to replace defective components of existing luminaires, provided there is no change to the characteristics of the luminaire

Certification Requirements

The requirement for a certification mark on electrical equipment is found in the Electrical Safety Regulation, Section 21. Alterations to fluorescent luminaires involving energy efficiency upgrades will in most cases “result in the product ceasing to meet the standards required to be met by the certification agency that authorized the use of the certification mark.” (See *Safety Standards Act*, Section 68).

Approved Fixtures that are not modified will continue to be recognized as approved without evidence to the contrary.

Certified Retrofit Kits

Field retrofit kits which bear evidence of approval are available and are permitted to be installed by qualified persons. These kits come with labels which may contain a new nameplate, including a new certification mark. The qualified person must apply the new label as described in the installation instructions. The field application of a certification mark by someone other than a certification body's representative is relatively new. However, assurance has been received from the certification companies that they are authorized to apply the label on their behalf in accordance with the installation instructions.

Retrofit kits that must be used with a specific lamp will not always be provided with an approval label on the fixture itself. In this case, the label will be placed on the replacement bulb. When this replacement occurs, rule 2-106 must be followed and new labelling of the fixture must occur to indicate the new characteristics. In all cases, the installation instructions provided with the retrofit kit must be followed. Products such as LED lamps that bear evidence of retrofit approval and are intended for retrofit use in existing fixtures may be used following manufacturer specifications.

Field modified Luminaires

Field modified luminaires not incorporating a certified kit will require re-approval and marking. Where the electrical work involves modifications to the existing ballast and secondary wiring connecting directly to the existing tombstones or where the existing ballast and secondary wiring is completely removed or replaced, re-approval is required. This typically will be the SPE-1000 Model Code (Special Inspection) approach described in Bulletin B-E3 071019 3 Revision 6.

If practicable, the fixtures may be removed from site and modified in a certified shop when the shop is licenced to perform the tasks and apply a new nameplate and certification mark.

A handwritten signature in black ink, appearing to read "Ulrich Janisch".

Ulrich Janisch
Provincial Safety Manager - Electrical

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