



Nemko Canada Inc.

Special Inspection of Electrical Equipment to Canadian Electrical Safety Requirements – A Guide for Applicants



Introduction

This document provides guidance for applicants on Nemko Canada's Special Inspection (Field Evaluation) program for approval of Electrical Equipment for the Canadian market.

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1. Company Profile

1.1 The Nemko Group

The Nemko Group is a worldwide organization specializing in testing, inspection and certification services. Headquartered in Norway and with subsidiaries located around the world, the Nemko Group is positioned in key markets to provide conformity assessment and market access services.

More information on the Nemko Group can be found at www.nemko.com

2. Eligible Products

2.1 Scope of accreditation:

The Standards Council of Canada has accredited Nemko Canada to inspect electrical products in accordance with its scope of accreditation (see SCC website for full scope www.scc.ca). The following table provides details of standards against which Nemko can inspect products.

Standard	Title
CSA Std. SPE-1000	Model Code for the Field Evaluation of Electrical Equipment

2.2 Included products

The scope of products is detailed in section 1 of the CSA SPE-1000 document. Inspection is not intended to be a substitute for certification but is relevant in a number of cases. Examples where the model code can be applied are

- a) custom-built equipment for special applications;
- b) equipment manufactured on a non-repetitive basis;
- c) equipment sold in quantities of not more than 500 on a national basis, per model, per year, per inspection body;
- d) equipment not obtainable as “certified” under a regular certification program;
- e) equipment already installed or ready for use on-site and awaiting acceptance by the AHJ;
- f) complete systems or subassemblies that are all available for examination and testing during the evaluation process; and
- g) other electrical equipment as determined by the AHJ.

2.3 Excluded products

The scope of excluded products are detailed in section 1 of the CSA SPE-1000 model code and reproduced below:

- a) wire and cable products;
- b) wiring devices;
- c) equipment for use in hazardous locations;
- d) medical electrical equipment and systems;
- e) components* that will require further evaluation as part of a complete assembly, such as switches, relays, and timers;

f) equipment connected to line voltage in excess of 46 kV;
g) manlifts, elevators, climb assists and similar systems (other than their associated control panels);
and

h) any equipment that is not permitted to be field evaluated as directed by an AHJ (such as air-cleaning equipment that intentionally produces ozone).

* Special inspection/field evaluation only applies to equipment that is capable of being connected to the supply in accordance with the Canadian Electrical Code, Part I.

Any products that have been denied approval from another certification or inspection organization are not eligible for inspection under this program.

3. Special Inspection and Associated Test Requirements

The Special Inspection service is offered on behalf of participating provinces and territories by a certification organization or an inspection agency recognized by the regulatory authority. The service provides the means for evaluating products on location and, if found in compliance with stated technical requirements, such products may be marked with a Special Inspection Service label. Field evaluation of electrical products is not equivalent to an evaluation in support of certification. Consequently, products that are field-evaluated and labeled cannot be considered as certified. There are also limits to the number of units that are eligible for Special Inspection.

Limited testing is conducted in the field on units that are subject to Special Inspection. In order to support an application for Special Inspection, the Applicant may provide a test report on the product for review and consideration. The Applicant may use any Test Laboratory that has been **qualified** by Nemko Canada for providing test data or a Test Laboratory that is otherwise recognized by Nemko Canada.

4. Special Inspection Fees

4.1 Fee Schedule

The fees that apply for Special Inspection are calculated based on the type of product, quantity and the location where the equipment is to be inspected/labeled. Additional charges will apply if more than one on-site visit is required as a result of modifications needing to be made to the equipment. You may contact Nemko Canada directly to discuss the fees that will be applicable to your product.

5. Application procedure

5.1 Documentation requirements

Generally, the following documentation is required to make an application:

- Nemko Application Form
- Product description (specifications and intended operation, environmental conditions)



Depending on the type of product for which Special Inspection is being sought, more or less documentation may be required such as wiring diagrams, parts lists etc. Please refer to the following sections to determine what may be applicable for your product. Note that if additional testing is required as part of the Special Inspection process, the testing facility may also request additional information.

Please contact us at +1 613 737 9680 or via www.nemko.com. Should you require any guidance on the application requirements please do not hesitate to contact your local Nemko Laboratory.

5.2 Format of application

Supporting documentation must be supplied in electronic format. Large files may be uploaded via our FTP server. Please contact Nemko Canada for a user name and password to make use of this service.

5.3 Application address

Application documents should be emailed to the Nemko account executive handling your enquiry.

6. The Special Inspection Process

6.1 Document review

On acceptance of your order, a preliminary evaluation of the application materials will be performed to establish whether additional documentation may be required during the inspection and to perform a preliminary construction review of the product to facilitate the on-site inspection process. If information is missing then you will be contacted immediately in writing and requested to supply the additional information.

The Applicant will be contacted by Nemko's Certification Administrator and/or the Inspector in order to arrange a date for the inspection and confirm the number of units to be inspected. If an AHJ is involved in the process, they will be contacted and advised of the inspection date and to determine if they require a copy of the Special Inspection Report.

6.2 On Site Evaluation

The inspection will be conducted at the location specified by the Applicant, or in certain instances may be conducted at Nemko's laboratory facility. The inspector will examine and evaluate the equipment in accordance with the applicable requirements (SPE-1000 Model Code for the Field Evaluation of Electrical Equipment, any applicable sections of the Canadian Electrical Code (C22.1) together with any Provincial/Territorial amendments to the Code) and document details of the equipment and evaluation in Nemko's Special Inspection Report. Some disassembly of representative units will be required in order to evaluate construction and components used in the equipment.

As part of the evaluation, limited testing may be required on a representative sample of the equipment. While most of the tests are non-destructive, some tests may result in damage to the representative sample (e.g. match test applied to plastic enclosure material if the material is unknown). If additional testing is deemed necessary or additional information is required, arrangements will have to be made by the Applicant to provide the inspector with the additional information. In such cases, if the outstanding items cannot be resolved while the inspector is on site, an additional visit will be required once the information is available.



As a result of the inspection, there may have to be modifications made to the units inspected. If required modifications cannot be made to the equipment while the inspector is on site, an additional visit will be required in order that the inspector may review the modifications, and if found acceptable, label the equipment.

Equipment found to comply with the requirements is labeled with a serialized Nemko Special Inspection label which is to be applied only by the inspector (or under their direct supervision). The serial numbers of the labels that are applied to eligible equipment are recorded in the Special Inspection Report. A completed copy of the Special Inspection Report is left with the Applicant. An Electronic copy of the Special Inspection Report may be forwarded to the Applicant and to the AHJ involved (if applicable) once the inspector returns to the office.

6.3 Confidentiality

The Inspection Body scheme being used involves close contact with the SCC in their capacity as our accreditation body. During the course of our operations for this scheme it may be necessary to supply, or make available for inspection, records relating to your product as evidence of compliance to applicable standards.

As required by Canadian Federal, Provincial or Municipal laws, records will also be made available. You will be notified of the intent to disclose unless prohibited by law.

Confidentiality for all other third parties will be maintained unless written permission from the Applicant is received.

7. Special Inspection Label

Serialized Special Inspection labels are only supplied and affixed by Nemko Canada inspection personnel. The Special Inspection Label can only be applied after the product has been evaluated in the field by Nemko and found to comply with all requirements. A product that has been subject to Special Inspection is not considered as certified and is not to be represented as being “certified”.

Improper use of the Nemko Canada Special Inspection Label will result in action being taken against the Applicant in accordance with Nemko procedures.

8. Modification of equipment

In some cases, certain modifications may need to be made to the existing equipment in order for the equipment to comply with the applicable requirements. The Special Inspection Label will not be applied until the Applicant has made the necessary modifications and they have been examined by the Inspector. If the product cannot be modified while the inspector is present at the inspection location, an additional visit may be required in order to evaluate the modifications, and if found acceptable, to label the units.

If the units cannot be modified to comply with the applicable requirements, the units will not be labeled. In such a case there will be no refund of the Special Inspection fee.

An inspection report and label only applies to the specific product inspected and labelled by our inspector.

9. Complaints and Appeals

Nemko Canada maintains procedures to effectively handle complaints and appeals from its customers. All complaints and appeals should be made in writing to the:

Director of Certification
Nemko Canada Inc
303 River Road
Ottawa, Ontario
K1V 1H2 Canada

The final arbiter in disputes regarding accreditation issues under the Inspection Body program is the Standards Council of Canada.

You may contact them at:

Standards Council of Canada
600-55 Metcalfe Street
Ottawa, Ontario
K1P 6L5 Canada

Tel: 613 238 3222

10. References

The following documents have been used in creating this Guide for Applicants:

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| ISO/IEC 17020:2012 | - | Conformity assessment – requirements for the operation of various types of bodies performing inspection |
| ISO/IEC 17025:2005 | - | General requirements for the competence of testing and calibration laboratories |
| SCC Requirements and Guidance - Inspection Body Accreditation Program | | |
| CSA SPE-1000 | - | Model Code for the field evaluation of electrical equipment |