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Vice President, Government Relations

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VIA EMAIL TO: equipment@nrca.gc.ca

Debbie Scharf
Director, Equipment Division
Office of Energy Efficiency
Natural Resources Canada
930 Carling Avenue, Building 3, 1st Floor
Ottawa, Ontario K1A 0Y3

NEMA Comments on Natural Resources Canada Proposed Amendment 13 to Canadian Energy Efficiency Regulations for Electric Motors

Dear Ms. Scharf,

The National Electrical Manufacturers Association (NEMA) submits these comments and proposed edits and additions to the subject proposed amendment. These comments are submitted on behalf of NEMA Motor and Generator Section member companies.

As you may know, NEMA is the association of electrical equipment and medical imaging manufacturers, founded in 1926 and headquartered in Arlington, Virginia. The National Electrical Manufacturers Association (NEMA) represents nearly 400 electrical and medical imaging manufacturers. Our combined industries account for more than 400,000 American jobs and more than 7,000 facilities across the U.S. Domestic production exceeds \$117 billion per year.

Our Member companies count on your careful consideration of this response and look forward to an outcome that meets their expectations. We look forward to working with you to understand and incorporate them. If you have any questions about the contents of this letter, please contact Alex Boesenberg of NEMA at 703-841-3268 or alex.boesenberg@nema.org.

Sincerely,

A handwritten signature in black ink that reads "Kyle Pitsor". The signature is written in a cursive, flowing style.

Kyle Pitsor
Vice President, Government Relations

NEMA Comments on Natural Resources Canada Proposed Amendment 13 to Canadian Energy Efficiency Regulations for Electric Motors, Division 12, Sections 749 and 750

Proposed changes or additions to regulatory language are noted in ~~strikeout~~ (removals) and underline (additions/edits) fonts.

1. To Section 749, Definitions, add a definition for Submersible Electric Motors. This addition will further align Canadian regulations to U.S. regulations and prevent a potential loophole.
NEMA proposes:
Submersible Electric Motor means an electric motor that (1) is intended to operate continuously only while submerged in liquid, (2) is capable of operation while submerged in liquid for an indefinite period of time, and (3) has been sealed to prevent ingress of liquid from contacting the motor's internal parts.
2. To Section 749, definition of motor item (j). The reference to 50/60 hertz operation should be struck. Existing test procedures and other requirements clearly require the use of 60Hz power. Furthermore, the efficiency of a 50Hz motor will suffer when used on a 60Hz system. There are no 50Hz power distribution networks in North America. Additionally, the reference to 50Hz in the proposed definition may lead to confusion regarding whether 50Hz motors may be imported, manufactured or sold in North America. In addition, the inclusion of 50Hz may lead individuals to believe that 50Hz marked motors are not subject to energy efficiency regulations. To prevent confusion and prevent potential loopholes, rather than reference 50Hz operation it is better to simply state the regulation applies to motors that are capable of operation at 60Hz are covered products.

NEMA proposes the following changes to proposed language (see Title 20 of U.S. Code Part 431¹):

“(j) has a nominal frequency of 50/60 Hz or 60 Hz; is capable of operation on polyphase alternating current (AC) 60-hertz sinusoidal line power;”

3. To Section 749, definition of motor, item (j). Change the last line, item (m) to reflect that any ingress protection code is a valid means to establish coverage. This precludes the creation of future IP codes which might seek to circumvent regulatory coverage.

NEMA proposes the following changes to proposed language:

“(m) has an any IP code from 00 to 67.”

4. To Section 749, definition of a motor, exclusions. We propose to strike existing item (n). As proposed, item (n) implies that NEMA Standard MG1 specifications allow for the construction of an electric motor using NEMA Design C starting torque profiles and rated above 150 kW (200Hp) to be termed a NEMA Design C motor. This is incorrect. In accordance with NEMA MG1², an electric motor of greater than 150 kW (200 Hp) may NOT be rated as NEMA Design C. The proper designation would be that of a NEMA Design A >150Kw (200Hp), with NEMA Design C starting torques. To clarify this classification and prevent the mis-designation of NEMA Design C motors in effort to circumvent regulations, NEMA proposes the following changes to proposed language:

¹ <https://www.gpo.gov/fdsys/pkg/CFR-2008-title10-vol3/pdf/CFR-2008-title10-vol3-part431-subpartB.pdf>

² See NEMA Standard MG1 clauses 1.19.1.3, 12.39.2 and 12.40.2

~~“(m) has an IP code from 00 to 67. [see NEMA comment in item 3]~~
(n) or, is a motor of the above described construction that has a nominal output power of more than 150 kW (200 horsepower) and that is rated as having NEMA Design C motor or an IEC design H motor starting torques shall be considered a NEMA Design A or N covered motor product.

It does not include any of the following:

~~“(n) a motor that has a nominal output power of more than 150 kW (200 horsepower) and that is a NEMA design C motor or an IEC design H motor.”~~

5. To Section 751: Global motor test procedures are greatly harmonized. IEC Standard 60034-2-1 is commonly used to test electric motor energy efficiency and is harmonized with North American standards. To clearly recognize this alignment, and prevent added burden regarding test lab certification and related allowable test data for compliance submissions, NRCAN should recognize IEC 60034-2-1 as an acceptable alternative test procedure in Section 751.

NEMA proposes the addition of a footnote to Section 751 Table
“CSA C390-10*”

* or IEC 60034-2-1 as equivalent

6. General Comment: The use of common markings on covered products can greatly reduce burden on manufacturers with respect to identifying compliance while also making enforcement more feasible. The U.S. Department of Energy issued a proposed rule for certification, compliance and enforcement (CCE) of electric motors on June 10th 2016. This proposed rule includes both small and medium electric motors, and includes language that could significantly affect *current* regulations. Motor manufactures may be required to alter efficiency reporting, lab accreditation, product certification and name plate data, among other things. As of this writing NEMA is reviewing the CCE to prepare comments to DOE. We suggest NRCAN monitor and participate in this rulemaking from a North American harmonization perspective.
7. We also note that the U.S. DOE is actively engaged in a rulemaking for import data collection³, as part of enforcement of energy efficiency regulations on imported products. We recommend NRCAN follow this rulemaking, and participate if possible, to encourage and facilitate alignment between U.S. and Canadian enforcement of appliance efficiency regulations. NEMA has numerous concerns with the DOE proposal and will be submitting suggested changes to the proposed rule. Our mention of this rulemaking is not a suggestion that NRCAN copy the proposed rule as written.

To that end, we note that the U.S. DOE has announced the intent to establish collaboration with the U.S. Customs and Border Patrol to more actively enforce energy efficiency regulations on imported products entering the country. The DOE’s Import Data Collection⁴ rulemaking to formally establish a means by which “any covered product or equipment subject to an applicable energy conservation standard provide,

³ <http://energy.gov/gc/articles/doe-proposes-requirement-certification-admissibility-covered-products-and-equipment>

⁴ <http://energy.gov/eere/buildings/downloads/issuance-2015-12-22-energy-conservation-program-certification-and>

prior to importation, a certification of admissibility to the DOE for the covered product or equipment.”

NEMA has commented to this rulemaking twice⁵ and recommends that NRCan review this proceeding and consider implementing similar enforcement activities.

With respect to information to submit as part of declaration, NEMA has commented to DOE that their proposal is too cumbersome. We share our revised and shortened list of proposed declarations below for information:

- Brand name
- Basic model number
- CC number
- Full load nominal efficiency
- Output in HP or kW
- Speed
- Enclosure type

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<http://www.nema.org/Policy/Documents/NEMA%20Cmnts%20on%20DOE%20Import%20Data%20NOPR%20March%202016.pdf>

<http://www.nema.org/Policy/Documents/NEMA%20Supplementary%20Cmnts%20on%20DOE%20Import%20Data%20NOPR%20June%202016.pdf>