



National Electrical Manufacturers Association
 1300 North 17th Street
 Suite 1847
 Rosslyn, VA 22209

A LIGHTING SYSTEMS DIVISION INFORMATION BULLETIN

Changes to the 2005 NEC Will Impact Future Metal Halide Systems Options

Original Equipment Manufacturers (OEMs) and specifiers of metal halide lighting systems should be aware that changes to the 2005 National Electrical Code (NEC) will impact manufacturers of metal halide luminaires as well as their customers. While these changes have not yet been published, the process to modify the NEC to incorporate these provisions is sufficiently far along that the NEMA Lighting Systems Division believes some initial communication on this matter is advisable to OEMs and specifiers. As more information becomes available, further updates will be provided. It is also expected that additional information will be published in the form of papers and articles targeted at various lighting audiences.

National Electrical Code Background

The NEC is administered by the National Fire Protection Association (NFPA) and is revised via an open consensus process every three years. The current 2002 NEC is now undergoing many changes as the result of submitted proposals by stakeholders of all types. A newly revised version, including any changed requirements, will be published as the 2005 NEC in the fall of 2004. Municipalities or states are then able to adopt and enforce the most recent edition of the Code if they so desire. Once adopted, electrical inspectors will apply the requirements of the new 2005 edition of the NEC when they are involved in the inspection process—typically for new construction or when an existing building undergoes a renovation that would require an electrical permit and resulting inspection.

Important Changes in the 2005 NEC for Metal Halide Systems

This information bulletin focuses on one key change that is anticipated to be approved for the 2005 NEC. Specifically, the 2005 NEC will require that luminaires that use a metal halide lamp shall be provided with either a containment barrier that encloses the lamp (historically referred to as an enclosed luminaire) or shall be provided with a means, typically a special lampholder, that will only accept an ANSI Type – O metal halide lamp. (Exception—this requirement will not apply to open luminaires with thick-glass parabolic reflector PAR lamps.)

The intent of this requirement is to require that, when open luminaires are specified in the future, only Type – O lamps will operate in those luminaires. This means that for those

jurisdictions that adopt the 2005 NEC, the historically common Type – S lamp will not be an option for open luminaires in future new construction or in major lighting renovations to existing buildings.

Implications of this 2005 NEC Change

Existing installations that use open luminaires and Type – S lamps will continue to exist, even in municipalities that adopt the 2005 NEC. Type – S metal halide lamps will continue to be available for those customers that wish to continue to use them in existing open luminaires and in accordance with appropriate lamp and luminaire manufacturer warnings and instructions.

Existing open luminaires will accommodate Type – O lamps without a lampholder change. Existing enclosed luminaires will accommodate Type – O, S, or E lamps without a lampholder change.

It is expected over time that the mix of metal halide lamps available will naturally shift to reflect the anticipated adoption of the 2005 NEC and that there will be an associated shift to luminaires that are either enclosed or that only accept Type – O lamps.

When operated in accordance with manufacturer’s warnings and instructions, open luminaires with Type- S lamps remain a safe and effective lighting alternative for many applications. However, when warnings and instructions are not heeded, the operation of an open luminaire with a Type – S lamp may potentially present an elevated level of risk of fire (in some applications) that would not exist with lighting systems employing either an enclosed luminaire or an open luminaire with a Type – O lamp.

NEMA lamp and luminaire manufacturers support this change to the 2005 NEC code since it will simplify the metal halide systems options available and will also reduce the potential risks associated with failure to properly follow the warnings and instructions for systems that specify open luminaires with Type – S lamps.

For more information regarding the proper use of Type - O, S, and E metal halide systems please refer to the NEMA white paper on this subject that is freely available at www.nema.org:

LSD 25- 2000, Best Practices for Metal Halide Systems, Plus Questions and Answers about Lamp Ruptures in Metal Halide Lighting Systems. (Note: Currently under revision to include information presented in this bulletin.)

For further information, contact Ron Runkles at 703-841-3278.
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