NEMA Comments to R314: Carbon Monoxide Alarms
July 28, 2010

NEMA has the following comments to the draft rule language titled BCD-6.

Section R315.4.1:

- Permitting plug-in and battery operated CO alarms to be installed for new construction presents a serious life safety threat in the event of power failure due to severe weather or when children are in the household. It is not uncommon for people to improperly use generators for electricity when there is a power failure resulting in people suffering carbon monoxide poisoning. Plug-in units are normally located near the floor where young children can remove the unit from the electrical outlet thereby leaving the premises unprotected. NEMA recommends CO alarms to be hardwired with secondary power backup for new construction as this installation provides the highest level of protection for the occupants of the dwelling.
- NEMA recommends CO alarms to be interconnected when more than one is required to be installed. A quick survey of NEMA manufacturers found that there are several brands of CO alarms and combination smoke/CO alarms that are designed to be interconnected, so selection and availability should not be of concern.
- If smoke alarms are required to be hardwired with battery backup and they are required to be interconnected when more than one is installed then carbon monoxide alarms should have the provide the same level of protection as smoke alarms for the citizens of Oregon. As the Committee already recommended that combination-type alarms be hard wired with battery backup, and as this is certainly going to be the least expensive and most used installation choice, the actual impact of making this a requirement for all alarms in a residence is minimal.
- The requirement for plug-in CO alarm to be “securely fastened to the structure” is problematic because, to NEMA’s knowledge, no such product is available on the market as of today.

NEMA would like to submit the following changes for the Committee’s consideration:

R315.4 Power Source.

315.4.1.1 New construction. Single-station carbon monoxide alarms and combination smoke/carbon monoxide alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. When more than one carbon monoxide alarm is required to be installed all the alarms shall be interconnected.

R315.4.1.2 Existing Construction. Single-station carbon monoxide alarms and combination carbon monoxide/smoke alarms shall be battery operated, or may receive their primary power from the building wiring system. Plug-in devices ~~securely fastened to the structure and~~ installed in accordance with the manufacturer’s installation instructions are deemed to satisfy this requirement.

R315.4.2 Household carbon monoxide detection systems. Required power supply sources for household carbon monoxide detection systems shall be in accordance with NFPA 720.