DEPARTMENT OF LABOR AND INDUSTRY

Use of Type NM Cable in Garages and Accessory Buildings at Multi-Family Dwellings

Question: NEC Section 334.10 clearly permits the use of Type NM cable without a 15-minute thermal barrier in one- and two-family dwellings, their attached or detached garages, and their detached storage buildings. In 334.10(3) for structures other than one- and two-family dwellings and multi-family dwellings, why is Type NM cable required to be concealed within walls, floors or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating (e.g. ½-inch gypsum board)?

Answer: The 15-minutes is an established time period considered sufficient for occupants to escape from a building before they can be trapped or overcome by products of combustion (e.g. smoke, fumes, etc.) from burning construction and finish materials.

Question: It's very common for multi-family dwellings (i.e. apartment buildings) to also have detached garages of Type V construction. Is Type NM cable permitted in these detached garages without the 15-minute thermal barrier, similar to detached garages associated with one- and two-family dwellings?

Answer: Yes, unless it is prohibited elsewhere in the NEC. Although 334.10(2) for multi-family dwellings does not specifically mention detached garages or detached storage buildings, as is mentioned for one- and two-family dwellings, Type NM cable would be permitted to be used in such detached buildings of Type V construction. Type V constructed detached garages for one- and two-family dwellings and detached garages for multi-family dwellings are essentially the same structure so it is only reasonable to treat them exactly the same when it comes to the installation of Type NM cable.

Note: Remember that NEC section 334.15 requires physical protection for exposed installations of NM cable in all occupancies and is a much more important consideration.

Glossary of Construction Types:

- Type I (Fire Resistive) (Example – concrete and steel high-rise office tower)
- Type II (Noncombustible) (Example – steel, cinder block, and brick shopping mall)
- Type III (Combination of combustible and noncombustible) (Example – Brick and cinder block exterior walls with wood floors and ceilings, similar to old warehouse construction)
- Type IV (Heavy Timber) (Example – Modern churches with laminated beam cathedral ceilings)
- Type V (Wood Frame) (Example – one- and two-family dwellings, apartment buildings, hotels, motels, churches, funeral homes, medical offices, retail, restaurants, etc.)