OBJECTIVE: To gain an understanding of the general code requirements governing the installation and location of equipment and appliances, access to appliances, electrical requirements, condensation provisions for high efficiency appliances, and clearances to equipment.

REFERENCE: Sections 305 to 310, 2012 International Fuel Gas Code

KEY POINTS:
- Under what circumstances are appliance locations restricted?
- When are appliances required to have their ignition source located 18 inches above the floor?
- When is the ignition source of an appliance permitted to be located at the floor level in a hazardous location?
- When does the code require a boiler or furnace room to be separated from other occupancies?
- Appliances are required to be installed what distance above the adjoining grade level?
- What requirements apply to appliances serving repair garages?
- What are the access requirements to appliances and equipment installed in a room?
- What are the access requirements to appliances and equipment installed in attics?
- What are the access requirements to appliances and equipment installed in under-floor spaces?
- What code or standard governs the requirements for luminaires when an appliance is located in an attic or under floor space?
- Under what condition is an access ladder required?
- When is a working platform required for appliances located on roofs?
- When are guards required around a working platform when equipment is located on the roof of a building?
- Condensate piping serving condensing appliances shall be of what material?
- What is the minimum internal diameter for a condensate drain line?
- When are condensate drain lines required to be trapped?
KEY POINTS: (Cont’d)
• When are auxiliary drain pans required?
• When are reduced clearances permitted?
• Is gas piping permitted to be used as a grounding electrode?
• What are the bonding requirements for CSST gas piping?
Examples of appliance ignition sources include the burners of a furnace, dryer or water heater; burner igniters or electrical relays; switches; contacts; and electrical motors, which can create a spark.
Water heaters that are listed as flammable vapor ignition resistant are exempt from the requirement to elevate the ignition source 18 inches above the floor and are permitted to be located in a garage at floor level without separation.
There are "manufactured slabs" available that are made of materials other than concrete. These manufactured products are widely accepted but require the approval.