AMENDMENT PROPOSAL

Please provide all of the following items in your amendment proposal.

Code Sections/Tables/Figures Proposed for Revision:

IFC Section 916.

Proposal:

Add new text as follows:

916.2.1 Construction documents. Documentation of the gas detection system design and equipment to be used that demonstrates compliance with the requirements of this code shall be provided with the application for permit. Shop drawings for gas detection systems shall be submitted for permit application as a deferred submittal in accordance with IBCA Section 133.5. Plan review and approval are required prior to issuance of a permit for system installation. Two sets of scaled, engineered installation shop drawings shall be submitted. Documents shall be of sufficient clarity and detail to fully describe the scope of work. Handwritten notes and comments on reproduced drawings are not acceptable. Submittals shall comply with Appendix N.

Add new text as follows:

916.3 Equipment. Gas detection system equipment shall be designed for use with the gases being detected and shall be installed in accordance with manufacturer’s instructions. Separate gas detection system control panels monitored by the building fire or sprinkler alarm control panel, or gas detection system control panels installed in buildings without a fire or sprinkler alarm system are permitted. Where permitted, separate gas detection system control panels shall be installed in approved locations outside of the potentially contaminated areas. Multiple separate gas detection system alarm control panels are permitted; however, areas protected by a single gas detection system alarm control panel shall be contiguous.

Add new text as follows:

916.4 Power connections. Gas detection systems shall be permanently connected to the building electrical power supply on a locked dedicated circuit or shall be permitted to be cord connected to an unswitched receptacle using an approved restraining means that secures the plug to the receptacle.

Delete text as follows:

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916.8 System activation. A gas detection alarm shall be initiated where any sensor detects a concentration of gas exceeding the following thresholds:
1. For flammable gases, a gas concentration exceeding 25 percent of the lower flammability limit (LFL).
2. For nonflammable gases, a gas concentration exceeding one-half of the IDLH, unless a different threshold is specified by the section of this code requiring a gas detection system.

Upon activation of a gas detection alarm, alarm signals or other required responses shall be as specified by the section of this code requiring a gas detection system. Audible and visible alarm signals associated with a gas detection alarm shall be distinct from fire alarm and carbon monoxide alarm signals.

Add new text and delete as follows:

916.8.1 Audible and visible alarm signals. Audible and visible gas detection system notification appliances shall be installed on the interior and exterior of the areas required by this code to have a gas detection system per the notification requirements of NFPA 72 with the exception of CO2 and inert gases in section 5307.

Audible and visible notification appliances along with clearly legible signage shall be installed inside and outside of these occupancies in approved locations to alert all occupants possibly inside or entering the potentially contaminated area.

Audible gas detection system notification shall have tone and pattern distinctly different from fire alarm and carbon monoxide alarm signals. Visible notification appliances shall be amber strobes or beacons. Subject to the approval of the fire code official, complete notification in accordance with NFPA 72 throughout a building or facility beyond the potentially contaminated area is not required provided the potential for migration of the hazard to other occupied areas is small.

Add new text as follows:

916.9 Signage. Signs shall be provided adjacent to gas detection system alarm signaling devices that advise occupants of the nature of the signals and actions to take in response to the signal. Signage shall be placed adjacent to the amber strobes/horns. The sign shall have a minimum 2-inch block lettering with a minimum ½-inch stroke unless otherwise approved by the fire code official. The sign shall be on a contrasting surface of black on yellow and shall be of durable construction. Language shall be as approved by the fire code official.

Add new text and delete as follows:

916.10 Fire alarm system connections. Gas sensors and gas detection systems shall not be connected to fire alarm systems unless approved and connected in accordance with the fire alarm equipment manufacturer’s instructions. Gas detection systems shall be monitored by the building fire or sprinkler alarm control panel, where provided. A gas detection system shall be annunciated as a separate zone on the building annunciator and transmitted to the supervising station. Where multiple gas detection systems are installed, each shall be monitored and annunciated separately. Where the fire or sprinkler alarm control panel is not monitored by a supervising station, annunciation shall be provided in an approved location. Floor plans of the area protected by a gas detection system shall be provided in accordance with the requirements of Section 907.6.4.1.1. If two or more zones are provided on a gas detection system, directory-style LED annunciation shall be provided at the emergency alarm control panel. Supervisory and trouble signals shall be annunciated separately with yellow LEDs and alarm signals shall be annunciated with red LEDs.

Supporting Information:

Section 916 is a new gas detection system section in the 2018 IFC. Portions of section 908.8 in the 2015 IFCA have been brought into this section as a carry-over of 2015 amendment requirements. The 2018 IFC has made a distinction between manual emergency alarm and gas detection systems.

Referenced Standards:

None

List any new referenced standards that are proposed to be referenced in the code.

Impact:
It has no effect. Same amendments from 2015 IFCA.

Note: The proponent shall discuss the impact of the proposed amendment and indicate one of the following for each point below regarding the amendment proposal:
- The effect of the amendment proposal on the cost of construction: ☐ Increase ☐ Reduce ☒ No Effect
- The effect of the amendment proposal on the cost of design: ☐ Increase ☐ Reduce ☒ No Effect
• Is the amendment proposal more- or less-restrictive than the I-Codes; ☒ More ☐ Less ☒ Same

Departmental Impact:
Click or tap here to enter text.

Note: The proponent shall discuss the impact of the proposed amendment and indicate one of the following for each point below regarding the amendment proposal:

• The effect of the amendment proposal on the cost of review; ☐ Increase ☐ Reduce ☒ No Effect
• The effect of the amendment proposal on the cost of enforcement/inspection; ☐ Increase ☐ Reduce ☒ No Effect