

International Association of Plumbing and Mechanical Officials

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November 25, 2019

Julius Ballanco, P.E. JB Engineering and Code Consulting, P.C. Representing Daikin U.S. 1661 Cardinal Drive Munster, IN 46321

> Re: IAPMO Standards Council Decision TIA UMC-007-18 Decision date: November 25, 2019** 2018 Uniform Mechanical Code – Sections 1104.5, 1106, Table 1106.13.10.2, Table 1106.13.11.2, Section 1107.1, 1112.11, Figure 1106.13.11.4

Dear Mr. Ballanco:

I am transmitting to you herewith the following decision of the Standards Council. At its meeting on November 14, 2019, the Standards Council considered your request for the issuance of proposed TIA UMC-007-18 in the 2018 edition of the *Uniform Mechanical Code*. The proposed Tentative Interim Amendment requested amendments to Sections 1104.5, 1106, new Table 1106.13.10.2, new Table 1106.13.11.2, amendments to Section 1107.1, 1112.11, and Figure 1106.13.11.4, as shown in Exhibit A.

Prior to the November 14 meeting, the proposed TIA was balloted through the Mechanical Technical Committee in accordance with the Regulations Governing Committee Projects to determine if there existed the necessary three-fourths majority support on technical merit and emergency nature to establish the recommendation for issuance. The ballot failed on both accounts and subsequently came to the IAPMO Standards Council, as prescribed by the Regulations.

Upon review of the full record including oral testimony provided during the hearing, the Council hereby rejects the proposed TIA.

The Council notes that an overwhelming majority of the Technical Committee shared their view that this issue warrants a review of the available standard(s) at issue and thorough discussion among the Technical Committee members. The Council has instructed the staff liaison to advise the next Mechanical Technical Committee Chair that industry will be well served by the formation of a Task Group to further research this technology and report their findings to the Mechanical Technical Committee.

Sincerely,

Gabriella Davis Secretary, Standards Council

CC: Monte Bogatz, Executive VP & General Counsel Hugo Aguilar, VP, Codes & Standards Development Zalmie Hussein, Staff Liaison IAPMO Standards Council Members of the Mechanical TC Marc Nard, Air-Conditioning, Heating & Refrigeration Institute Aanchal Kohli, California Air Resources Board Dave Mann, Self

****NOTE**: Participants in IAPMO's codes and standards making process are advised that limited review of this decision may be sought from the IAPMO Board of Directors. For the rules describing the available review and the method for petitioning the Board of Directors for review, please consult Section 1-7 of the *IAPMO Regulations Governing Committee Projects* and the *IAPMO Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council.* Notice of the intent to file such a petition must be submitted to the Petitions Clerk of the Board of Directors within 15 calendar days of the Date of Decision noted in the subject line of this letter. As this document is an American National Standard (ANS), any persons who have directly and materially affected interests by this decision have the right to appeal to ANSI in accordance with ANSI procedures.

Exhibit A

1104.0 Requirements for Refrigerant and Refrigeration System Use.

1104.5 Flammable Refrigerants. The total of Group A2, B2, A3, and B3 refrigerants, other than Group A2L and B2L refrigerants shall not exceed 1100 pounds (498.9 kg) without approval by the Authority Having Jurisdiction. Institutional Occupancies shall comply with Section 1104.3. <u>Machinery rooms required in accordance with Section 1106.0 based on flammability shall be constructed and maintained in accordance with Section 1106.2.1 through Section 1106.2.6 and Section 1106.13 for Group A2L and B2L refrigerants other than R-717 (ammonia).</u>

1106.0 Refrigeration Machinery Rooms.

1106.2.2 Openings. Each refrigeration machinery room shall have a tight-fitting door or doors opening outward, self-closing where they open into the building and adequate in number to ensure freedom for persons to escape in an emergency. With the exception of access doors and panels in air ducts and air-handling units in accordance with Section 1106.6 1106.2.3, there shall be no openings that will permit passage of escaping refrigerant to other parts of the building. [ASHRAE 15: 8.11.2]

1106.6 <u>1106.2.3</u> Airflow. There shall be no airflow to or from an occupied space through a machinery room unless the air is ducted and sealed in such a manner as to prevent a refrigerant leakage from entering the airstream. Access doors and panels in ductwork and air-handling units shall be gasketed and tight fitting. [ASHRAE 15:8.11.7 8.11.3]

1106.11 <u>1106.2.4</u> Restricted Access. Access to the refrigeration machinery room shall be restricted to authorized personnel. Doors shall be clearly marked or permanent signs shall be posted at each entrance to indicate this restriction.

[ASHRAE 15:8.11.8 8.11.4]

<u>1106.2.2.1</u> <u>1106.2.5</u> **Detectors and Alarms.** Each refrigeration machinery room shall contain one or more refrigerant

detectors in accordance with Section 1106.2.6, located in areas where refrigerant from a leak will concentrate, that actuate an alarm and mechanical ventilation in accordance with Section 1106.2.2.2 1106.2.4 at a set point not more than the corresponding Occupational Exposure Limit, OEL, in accordance with Table 1102.3, a set point determined in accordance with the OEL as defined in Chapter 2 shall be approved by the Authority Having Jurisdiction. The alarm shall annunciate visual and audible alarms inside the refrigeration machinery room and outside each entrance to the refrigeration machinery room. The alarms required in this section shall be of the manual reset type with the reset located inside the refrigeration machinery room. Alarms set at other levels, such as IDLH, and automatic reset alarms shall be permitted in addition to those required in accordance with this section. The meaning of each alarm shall be clearly marked by signage near the annunciator.

Exception: Refrigerant detectors are not required where only systems using R-718 (water) are located in the refrigeration machinery room. For Group A2L and B2L, other than ammonia, refrigerant detectors shall comply with Section 1106.13.

<u>1106.2.2.2</u> <u>**1106.2.6**</u> **Refrigerant Detectors.** Refrigerant detectors required in accordance with Section <u>1106.2.2.1</u> <u>1106.2.5</u> or Section 1107.1.7 shall meet all of the following conditions:

(1) The refrigerant detector shall perform automatic self-testing of sensors. Where a failure is detected, a trouble signal shall be activated.

(2) The refrigerant detector shall have one or more set points to activate responses in accordance with Section $\frac{1106.2.2.1}{1106.2.5}$ or Section 1107.1.7.

(3) The refrigerant detector as installed, including any sampling tubes, shall activate responses within a time not to exceed 30 seconds after exposure to refrigerant concentration exceeding the set point value specified in Section $\frac{1106.2.2.1}{1106.2.5}$ or Section 1107.1.7.

(renumber remaining sections)

1106.2.5 Emergency Ventilation-Required Airflow. An emergency ventilation system shall be required to exhaust an accumulation of refrigerant due to leaks or a rupture of the system. The emergency ventilation required shall be capable of removing air from the machinery room in not less than the airflow quantity in Section 1106.2.5.1 or Section 1106.2.5.2. Where multiple refrigerants are present, then the highest airflow quantity shall apply.

1106.2.5.1 Ventilation - A1, A2, A3, B1, B2L, B2 and B3 refrigerants. The emergency ventilation for A1, A2, A3, B1, B2L, B2 and B3 refrigerants shall have the capacity to provide mechanical exhaust at a rate as determined in accordance with Equation 1106.2.5.1:

 $Q = 100\sqrt{G}$ (Equation 1106.2.5.1)

Where:

Q = Air flow rate, cubic feet per minute.

G = Refrigerant mass in largest system, pounds.

For SI units: 1 cubic foot per minute = $0.00047 \text{ m}^3/\text{s}$, 1 pound = 0.453 kg

1106.2.5.2 Ventilation - Group A2L Refrigerants. The emergency ventilation for A2L refrigerants shall have the capacity to provide mechanical exhaust at a rate determined in accordance with Table 1106.2.5.2:

TABLE 1106.2.5.2 REQUIRED AIRFLOW FOR GROUP A2L REFRIGERANTS

 $QA2L = [(P \cdot V \cdot A)/(LFL \cdot 0.50)]$ (Equation 1106.2.5.2)

Where:

P = Refrigerant density, pounds per cubic feet (kg/m3).

V = Refrigerant velocity equal to the refrigerant acoustic velocity (speed of sound), feet per second (m/s).

A =Cross section flow area of refrigerant leak, square feet (m2), A = 0.00136 ft2 (0.000126 m2).

LFL = Lower Flammability Limit, or ETFL60 where no LFL exist, published value in accordance with ASHRAE 34.

QA2L = Minimum required air flow rate, conversion to other units of measures is permitted, cubic feet per second (m3/s).

For exact ventilation rates and for refrigerants not listed, the ventilation rate shall be calculated using this equation.

1106.4 Natural Ventilation. Where a refrigerating system is located outdoors more than 20 feet (6096 mm) from buildings opening and is enclosed by a penthouse, lean-to, or other open structure, natural or mechanical ventilation shall be provided. The requirements for such natural ventilation shall be in accordance with the following: (1) The free-aperture cross section for the ventilation of a machinery room shall be not less than as determined in accordance with Equation 1106.4.

$$F = \sqrt{G}$$
 (Equation 1106.4)

Where:

F = The free opening area, square feet.

G = The mass of refrigerant in the largest system, any part of which is located in the machinery room, pounds.

For SI units: 1 cubic foot per minute = $0.00047 \text{ m}^3/\text{s}$, 1 pound = 0.453 kg(2) The location of the gravity ventilation openings shall be based on the relative density of the refrigerant to air. [ASHRAE 15:8.11.5(a),(b) 8.14]

1106.13 Machinery Room, A2L and B2L Other than R-717 (Ammonia). When required by Section 1106.1, machinery rooms shall comply with Sections 1106.13.1 through Section 1106.13.6. [ASHRAE 15:8.13]

1106.13.1 Flame-Producing Device. There shall be no flame-producing device or hot surface over 1290 °F (700 °C) in the room, other than that used for maintenance or repair, unless installed in accordance with Section 1106.5. [ASHRAE 15:8.13.1] **1106.13.2 Communicating Spaces.** Doors communicating with the building shall be approved, self-closing, tight-fitting fire doors. [ASHRAE 15:8.13.2] **1106.13.3 Noncombustible Construction.** Walls, floor, and ceiling shall be tight and of noncombustible construction. Walls, floor, and ceiling separating the refrigerating machinery room from other occupied spaces shall be of at least one-hour fire-resistive construction. [ASHRAE 15:8.13.3]

1106.13.4 Exterior Openings. Exterior openings, if present, shall not be under any fire escape or any open stairway. [ASHRAE 15:8.13.4]

1106.13.5 Pipe Penetrations. All pipes piercing the interior walls, ceiling, or floor of such rooms shall be tightly sealed to the walls, ceiling, or floor through which they pass. [ASHRAE 15:8.13.5]

1106.13.6 Machinery Room Designation. When any refrigerant of Groups A2, A3, B2, or B3 are used, the machinery room shall be designated as Class I, Division 2 hazardous (classified) electrical location in accordance with the NFPA 70. When the only flammable refrigerants used are from Group A2L or B2L other than R-717 (ammonia), the machinery room shall comply with both Section 1106.13.6.1 for ventilation and Section 1106.13.6.2 for refrigerant detection, or shall be designated as Class I, Division 2 hazardous (classified) electrical location in accordance with the NFPA 70. [ASHRAE]

15:8.13.6]

<u>1106.13.6.1 Mechanical Ventilation.</u> The machinery room shall have a mechanical ventilation system in accordance with Section 1106.13.11. The mechanical ventilation system shall:

(1) run continuously, and failure of the mechanical ventilation system actuates an alarm, or

(2) be activated by one or more refrigerant detectors, conforming to requirements of Section 1106.13.8. [ASHRAE 15:8.13.6.1]

1106.13.6.2 Detection System. Detection of refrigerant concentration that exceeds 25 percent of the *LFL* or the upper detection limit of the refrigerant detector, whichever is lower, shall automatically de-energize the following equipment in the machinery room:

(1) Refrigerant compressors

(2) Refrigerant pumps

(3) Normally closed automatic refrigerant valves

(4) Other unclassified electrical sources of ignition with apparent power rating greater than 1 kVA, where the apparent power is the product of the circuit voltage and current rating. [ASHRAE 15:8.13.6.2]

1106.13.7 Mechanical Equipment Control. Remote control of the mechanical equipment in the refrigerating machinery room shall be provided immediately outside the machinery room door solely for the purpose of shutting down the equipment in an emergency. Ventilation fans shall be on a separate electrical circuit and have a control switch located immediately outside the machinery room door. [ASHRAE 15:8.13.7]

1106.13.8 Refrigerant Detectors. Each refrigerating machinery room in accordance with Section 1106.13 shall contain one or more refrigerant detectors in accordance with Section 1106.13.9, with sensing element located in areas where refrigerant from a leak will concentrate, with one or more set points that activate responses in accordance with Section 1106.13.10 for alarms and Section 1106.13.11 for mechanical ventilation. Multiport type devices shall be prohibited. [ASHRAE 15:8.13.8]

1106.13.9 Refrigerant Detectors Requirements. Refrigerant detectors required by Section 1106.13 shall meet all of the following conditions:

(1) A refrigerant detector shall be capable of detecting each of the specific refrigerant designations in the machinery room.

(2) The refrigerant detector shall activate responses within a time not to exceed a limit specified in Sections 1106.13.10 and 1106.13.11 after exposure to refrigerant concentration exceeding a limit value specified in Section 1106.13.10 and Section 1106.13.11.

(3) The refrigerant detector shall have a set point not greater than the applicable Occupational Exposure Limit (OEL) value as published in Table 1102.3. The applicable OEL value shall be the lowest OEL value for any refrigerant designation in the

machinery room. For refrigerants that do not have a published OEL value in Table 1102.3, use a value determined in accordance with the OEL as defined by Standard Table 1102.3 where approved by the Authority Having Jurisdiction.

(4) The refrigerant detector shall have a set point not more than the applicable Refrigerant Concentration Limit (RCL) value as published in Table 1102.3. The applicable RCL value shall be the lowest RCL value for any refrigerant designation in the machinery room. For refrigerants that do not have a published RCL value in Table 1102.3, use a value determined in accordance with the RCL as defined by Table 1102.3 where approved by the Authority Having Jurisdiction.

(5) The refrigerant detector shall provide a means for automatic self-testing and shall be in accordance with Section 1106.13.10.4. The refrigerant detector shall be tested during installation and annually thereafter, or at an interval not exceeding the manufacturer's installation instructions, whichever is less. Testing shall verify compliance with the alarm set points and response times per Sections 1106.13.10 and Section 1106.13.11. [ASHRAE 15:8.13.9]

1106.13.10 Alarms. Alarms required by Section 1106.13.8 shall comply with Section 1106.13.10.1 through Section 1106.13.10.4.

1106.13.10.1 Visual and Audio. The alarm shall have visual and audible annunciation inside the refrigerating machinery room and outside each entrance to the refrigerating machinery room. [ASHRAE 15:8.13.10.1]

1106.13.10.2 Detector Activation. The refrigerant detector set points shall activate an alarm in accordance with the type of reset in Table 1106.13.10.2. Manual reset type alarms shall have the reset located inside the refrigerating machinery room. [ASHRAE 15:8.13.10.2]

1106.13.10.3 Alarm Levels. Alarms set at levels other than Table 1106.13.10.2 (such as IDLH) and automatic reset alarms are permitted in addition to those required by Section 1106.13.10. The meaning of each alarm shall be clearly marked by signage near the annunciators. [ASHRAE 15:8.13.10.3]

1106.13.10.4 Emergency. In the event of a failure during a refrigerant detector self-test in accordance with Section 1106.13.9(5), a trouble alarm signal shall be transmitted to an approved monitored location. [ASHRAE 15:8.13.10.4]

1106.13.11 Mechanical Ventilation. Machinery rooms, in accordance with Section 1106.13, shall be vented to the outdoors, using mechanical ventilation in accordance with Section 1106.13.11.1, Section 1106.13.11.2, and Section 1106.13.11.3. [ASHRAE 15:8.13.11.3]

<u>1106.13.11.1 Mechanical Ventilation Requirements. Mechanical ventilation referred to</u></u> <u>in Section 1106.13.11 shall be in accordance with all of the following:</u> (1) Include one or more power-driven fans capable of exhausting air from the machinery room; multispeed fans shall be permitted.

(2) Electric motors driving fans shall not be placed inside ducts; fan rotating elements shall be nonferrous or nonsparking, or the casing shall consist of or be lined with such material.

(3) Include provision to supply make-up air to replace that being exhausted; ducts for supply to and exhaust from the machinery room shall serve no other area; the makeup air supply locations shall be positioned relative to the exhaust air locations to avoid short circuiting

(4) inlets to the exhaust ducts shall be located in an area where refrigerant from a leak will concentrate, in consideration of the location of the replacement supply air paths, refrigerating machines, and the density of the refrigerant relative to air.

(5) Inlets to exhaust ducts shall be within 1 foot (0.3 m) of the lowest point of the machinery room for refrigerants that are heavier than air and shall be within 1 foot (0.3 m) of the highest point for refrigerants that are lighter than air. [ASHRAE 15:8.13.11.1]
(6) The discharge of the exhaust air shall be to the outdoors in such a manner as not to cause a nuisance or danger.

1106.13.11.2 Level 1 Ventilation. The refrigerating machinery room mechanical ventilation in Section 1106.13.11.1 shall exhaust at an airflow rate not less than shown in Table 1106.13.11.2. [ASHRAE 15:8.13.11.2]

1106.13.11.3 Level 2 Ventilation. A part of the refrigerating machinery room mechanical ventilation referred to in Section 1106.13.11.1 shall exhaust an accumulation of refrigerant due to leaks or a rupture of a refrigerating system or portion thereof in the machinery room. The refrigerant detectors required in accordance with Section 1106.13.8 shall activate ventilation at a set point and response time in accordance with Table 1106.13.10.2, at an airflow rate not less than the value determined in accordance with Section 1106.13.11.4. When multiple refrigerant designations are in the machinery room, evaluate the required airflow according to each refrigerating system, and the highest airflow quantity shall apply. Ventilation reset shall be in accordance with the type of reset in Table 1106.13.10.2. Manual-type ventilation reset shall have the reset located inside the refrigerating machinery room. [ASHRAE 15:8.13.11.3]

1106.13.11.4 Safety Group A2L, B2L Other than Ammonia. When required by Section 1106.13.11.3, the total airflow for Level 2 Ventilation shall be not less than the airflow rate determined by Figure 1106.13.11.4. [ASHRAE 15:8.13.11.4]

TABLE 1106.13.10.2SAFETY GROUPS: A2L, B2L OTHER THAN R-717 (AMMONIA)[ASHRAE 15:Table 8.13.10.2]

<u>LIMIT</u>	RESPONSE	<u>ALARM</u>	<u>ALARM</u>	VENTILATION	VENTILATION
VALUE	TIME	<u>TYPE</u>	RESET TYPE	<u>RATE</u>	RESET TYPE
	<u>(seconds)</u>				
<u>Set point ≤</u>	<u>≤ 300</u>	Troubled	<u>Automatic</u>	<u>Level 1</u>	<u>Automatic</u>
<u>OEL</u>		<u>Alarm</u>			
Set	<u>≤ 15</u>	Emergency	Manual	Level 2	Manual
<u>point ≤ RCL</u>		<u>Alarm</u>			

TABLE 1106.13.11.2LEVEL 1 VENTILATION RATE FOR CLASS 2L REFRIGERANTS[ASHRAE 15: Table 8.13.11.2]

<u>STATUS</u>	AIRFLOW
Operated when occupied and operated	The greater of the following:
when activated in accordance with Section	(1) 0.5 ft ³ /min per ft ² (2.54 L/s per m ²) of
<u>1106.13.10.2 and Table 1106.13.10.2</u>	machinery room area, or
	(2) 20 ft ³ /min (9.44 L/s) per person
Operable when occupied	With or without mechanical cooling of the
	machinery room, the greater of:
	(1) The airflow rate required to not exceed
	<u>a temperature rise of 18 °F (10 °C) above</u>
	inlet air temperature or
	(2) The airflow rate required to not exceed
	a maximum air temperature of 122 °F
	(50 °C) in the machinery room.

1107.1.7.1 Mechanical Ventilation. The mechanical ventilation system in the machinery room is run continuously in accordance with Section $\frac{1106.2.5}{1106.13.6.1}$ and failure of the mechanical ventilation system actuates an alarm, or the mechanical ventilation system in the machinery room is activated by one or more refrigerant detectors, in accordance with the requirements of Section $\frac{1106.2.2.1}{1106.2.2.1}$ and Section $\frac{1106.2.2.2}{1106.13.11}$.

1107.1.7.2 Refrigeration Detectors. For the refrigerant detection required in Section 1106.2.2.1, detection of refrigerant concentration that exceeds 25 percent of the LFL or the upper detection limit of the refrigerant detector, whichever is lower, shall automatically de-energize the following equipment in the machinery room:

(a) refrigerant compressors

(b) refrigerant pumps

(c) normally-closed automatic refrigerant valves

1107.1.7.3 Machinery Rooms. The machinery room shall comply with Section <u>1107.1.8</u> <u>1106.13</u>.

1112.11 Discharge from Pressure-Relief Devices. Pressure-relief systems designed for vapor shall comply with Section 1112.11.1 through Section 1112.11.4.1.

1112.11.1 Discharging Location Interior to Building. Pressure-relief devices, including fusible plugs, serving refrigeration systems shall be permitted to discharge to the interior of a building where in accordance with the following:

(1) The system contains less than 110 pounds (49.9 kg) of a Group A1 or A2L refrigerant.

(2) The system contains less than 6.6 pounds (2.99 kg) of a Group A2, B1, or B2 or B2L refrigerant.

(3) The system does not contain any quantity of a Group A3 or B3 refrigerant.

(4) The system is not required to be installed in a machinery room in accordance with Section 1106.0.

(5) The refrigerant concentration limits in Section 1104.0 are not exceeded. Refrigeration systems that do not comply with the above requirements shall comply with the requirements of Section 1112.11.2 through Section 1112.11.4. [ASHRAE 15:9.7.8.1]



(a)



(b)

FIGURE 1106.13.11.4

LEVEL 2 VENTILATION RATE FOR CLASS 2L REFRIGERANTS [ASHRAE 15: FIGURE 8.13.11.4-1]

1-7 Petitions to the Board of Directors.

1-7.1 General. The Standards Council has been delegated the responsibility for the administration of the codes and standards development process and the issuance of Documents. However, where extraordinary circumstances requiring the intervention of the Board of Directors exist, the Board of Directors may take any action necessary to fulfill its obligations to preserve the integrity of the standards development process. Anyone seeking such intervention of the Board of Directors may petition the Board of Directors concerning Standards Council action on any matters. Such petitions shall be filed and processed in accordance with the Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council.

1-7.2 Notice of Intent to File the Petition. Anyone wishing to petition the Board of Directors concerning an Standards Council action related to the issuance of a document, shall file a Notice of Intent to File a Petition within 15 days following the Standards Council action. A Standards Council action related to the issuance of a document includes any action of the Council that issues or returns a Document or that affects the text of a Document. Petitions concerning other Standards Council actions shall be filed within a reasonable period of time.

1-7.3 Effect of Filing. The filing of a Petition will not serve to stay the effective date of a Document or a Tentative Interim Amendment unless the Chief Executive Officer of the Association or the Board of Directors acts, pursuant to 4-7.2 or 5-6, to delay the effective date. Any Petition pending at the time a Document or Tentative Interim Amendment becomes effective will be treated as a Petition to withdraw the Document or Tentative Interim Amendment.

1-8 Use of Visual Aids and Demonstrations Before the Standards Council or Board of Directors. The policy for the use of visual aids and physical demonstrations to the Standards Council and Board of Directors shall be the same as that required for TCCs, TCs, and Task Groups, in accordance with 3-3.3.3(e) and 3-3.3.3(f).

IAPMO Regulations Governing Petitions to the Board of Directors from Decisions of the Standards Council

ADOPTED BY THE IAPMO BOARD OF DIRECTORS SEPTEMBER 4, 2000. Amended in January 2007.

Section 1 Scope of and Authority for these Regulations.

(a) These regulations have been issued by the Board of Directors pursuant to its authority under Article 5, 6 and 8 of the IAPMO Bylaws.

(b) These regulations set forth the procedures to be used for the filing and processing of all petitions to the Board of Directors filed pursuant to 1-7 of the Regulations Governing Committee Projects.

(c) The Board of Directors can amend these regulations from time to time and waive or supplement, in whole or in part, at any time or times at its discretion.

(d) For the purposes of these regulations, the Standards Council Secretary, or such other person as the Chair of the Board of Directors may appoint, shall act as a petitions clerk.

Section 2 Subcommittees of the Board of Directors. Unless the Board of Directors otherwise orders, the authority to consider and make recommendations on the disposition of a petition by the Board of Directors shall be delegated to a subcommittee of the Board of Directors, which shall be appointed, in accordance with 2.1 of these regulations. Subcommittees shall be appointed by the Chair of the Board of Directors.

2-1 Composition of Subcommittees. Subcommittees shall consist of three or more members of the Board of Directors. The criteria for selection and appointment of subcommittee members shall be as follows:

(a) A subcommittee member shall be a person who can decide the petition on the merits in an impartial manner.

(b) A subcommittee member shall not have any conflict of interest. (A conflict of interest is defined as any situation in which a decision on a petition could substantially and materially affect the member's financial or business interest.)

(c) Each subcommittee member shall, to the extent practicable, represent diverse interests within the association.

In making a decision of whether or not to serve on a subcommittee, the member may consult with the IAPMO general counsel.

Section 3 The Scope of Review. The petitioner shall generally confine the argument in the petition to matters that were presented below and shall not raise any new matters that could have but were not presented within the standards development process. A petition to the Board of Directors shall not be regarded as simply another opportunity to reargue a position that was rejected by the Standards Council. In considering a petition, the subcommittee shall give due deference to the judgment of the Standards Council and shall not intervene unless it can be demonstrated that extraordinary circumstances exist requiring the Board of Director's intervention to protect the integrity of the standards development process.

Section 4 The Record. In its consideration of the petition, the subcommittee shall have before it the entire record that was before the Standards Council, as well as all proceedings and decisions of the Standards Council on the issue. In addition, the subcommittee may consult any other records of the association that it deems pertinent to the issue, and the subcommittee may seek technical assistance from staff, the technical committee, or any other source or persons that it deems appropriate.

Section 5 Notice of Intent to File the Petition. Anyone wishing to petition the Board of Directors concerning a Standards Council action related to the issuance of a document, shall file a Notice of Intent to File a Petition within 15 days following the Standards Council action. A Standards Council action related to the issuance of a document includes any action of the Council that issues or returns a document or that affects the text of a document. Petitions concerning other Standards Council actions shall be filed within a reasonable period of time.

Section 6 Filing and Contents of the Petition.

(a) Within 15 days following the receipt of the notice of intent to file, or within such other time as the petitions clerk may allow, the petitioner shall file the petition together with 20 copies. The petition shall be no more than 10 pages in length and shall contain, in separately denominated sections, the following:

- (1) Name, affiliation, and address of the petitioner;
- (2) Statement identifying the particular Standards Council action to which the petition relates;

(3) Argument setting forth the grounds for the petition and, in particular, addressing why there exist extraordinary circumstances requiring the intervention of the Board of Directors (see the preceding Section 3 and 1-7 of the Regulations Governing Committee Projects); and

(4) Statement of the precise relief requested.

(b) Any part of the record related to the standards development process that is referenced or discussed in the petition should be clearly cited in the petition using available markings such as the title, author, date, and page of the record. Since the full record will be available to the subcommittee during its review, attachments and appendices shall not accompany the petition, unless express permission has been obtained from the petitions clerk.

Section 7 Consideration of the Petition.

7-1 Initial Review. The petitions clerk may, at his or her discretion, arrange for initial review of the petition by meeting, correspondence, or telephone conference. If upon such initial review of the petition and any relevant portions of the record, the subcommittee determines that the petition has no merit, it may dismiss the petition.

7-2 Full Review. If initial review is not conducted, or, if upon such review, the subcommittee determines that further review is warranted, it shall afford the opportunity for responses to be filed by interested parties.

Responses, together with 20 copies, shall be filed within 15 days or within such other time as the petitions clerk may allow.

(a) Responses shall be no more than 10 pages in length and shall contain, in separately denominated sections, the following:

(1) Name, affiliation, and address of the respondent;

(2) Statement identifying the petition to which the response relates and stating whether the respondent supports or opposes the petition; and

(3) Argument setting forth the grounds for opposing or supporting the petition and, in particular, addressing why there does or does not exist extraordinary circumstances requiring the intervention of the Board of Directors (see the preceding Section 3 and 1-7 of the Regulations Governing Committee Projects).

(b) Any part of the record related to the standards development process that is referenced or discussed in a response should be clearly cited in the response using available markings such as the title, author, date, and page of the record. Since the full record will be available to the subcommittee during its review, attachments and appendices shall not accompany the response, unless express permission has been obtained from the petitions clerk.

(c) So as to avoid unnecessary repetition and duplication of effort, parties are encouraged to file joint responses where possible and appropriate.

(d) Unless a hearing has been requested and granted by the subcommittee (see Section 8), the subcommittee shall, either by meeting or telephone conference, review and render a decision on the petition based on the written submissions of the parties and the record before it.

Section 8 Requests for Hearings. If the petitioner requests a hearing on the petition and that hearing is granted, the petitioner shall be assessed a filing fee of \$2,500 to be posted following the granting of the request. This fee may be reduced or waived by the Chief Executive Officer upon application of the petitioner if good cause for reducing or waiving the fee is presented. If a hearing is granted, the Procedures for Hearings shall be followed.

Section 9 Waiver of Regulations. Any of the deadlines or requirements set forth in these regulations may be waived by the subcommittee upon application of the petitioner or any other party for good cause shown, or in the discretion of the subcommittee.

Section 10 Subcommittee Report to the Board of Directors. The subcommittee shall file with the Board of Directors a written report concerning each petition that it has determined.