

# Washington State Building Code Council • Code Change Cycle 2021 Group 2

## 2021 International Mechanical Codes Significant Change Review Worksheet

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
<b>2021 INTERNATIONAL MECHANICAL CODE</b>							
<b>Chapter 1 Scope and Administration</b>							
<b>TAG Member Assigned: Jeff Yirak</b>							
101	101	Scope and General Requirements	Name change.	N	N	N	Adopt
101.2	101.2	Scope	Clarifies three stories are defined from ground plane level. <b>Existing State Amendment</b> <b>Staff Recommendation:</b> Update to latest editions of NFPA 54 (2021) and NFPA 58 (2020) <b>Modify per staff recommendation</b>	N	N	N	Adopt
101.3	101.3	Purpose	Minor rewording.	N	N	N	Adopt
103	103	Code Compliance Agency	Creates the code compliance agency as the code official, with specific function for implementation, administration, and enforcement of provisions of this code.	N	N	N	Adopt
104.8	103.4	Liability	Relocated from elsewhere in the code.	N	N	N	Adopt
Deleted	106.3.1	Construction Documents	This was relocated to section 110.	N	N	N	Adopt
106.3.1 106.3.2	106.3.2 106.3.3	Preliminary Inspection, Time limitation of application	Renumbered.	N	N	N	Adopt
106.4.6 106.4.7	106.4.7 106.4.8	Previous approvals, Posting of permit	Renumbered.	N	N	N	Adopt
107	110	Temporary Equipment, Systems and Uses	Renumbered.	N	N	N	Adopt

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108	107	Inspections and Testing	Renumbered.	N	N	N	Adopt
109	106.5	Fees	Relocated into its own section.	N	N	N	Adopt
109.1	106.5	Payment of fees.	Minor rewording.	N	N	N	Adopt
109.2	106.5.2	Schedule of permit fees.	This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility.	N	N	N	Adopt
109.3	N/A	Permit valuations.	This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility. Adds authority for the code official to challenge the attested value of the work as a function of the permit valuation.	N	N	N	Adopt
109.4	106.5.1	Work commencing before permit issuance	Changes prescriptive requirement of "100% of the usual permit fee" to a fee established by the code official. This could be higher or lower than 100% of the usual permit fee.	N	Y	N	Adopt
109.5	N/A	Related fees	Reminds the applicate that all permits and fees are required.	N	N	N	Adopt
109.6	106.5.3	Refunds	Authorizes code official authority to establish a refund policy. This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility.	N	N	N	Adopt
110	106.3.1 106.4.6	Construction Documents	Relocated to its own section. Adds digital format as an acceptable means of contract document submittal.	N	N	N	Adopt
111	107.4 107.4.1	Notice of Approval	Renumbered.	N	N	N	Adopt
112.1	107.6 107.5	Connection of service utilities	Relocated to a new section.	N	N	N	Adopt

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112.2	107.5	Temporary connection	Expands the definition of a temporary source connection and grants authorization by the code official without needing a temporary certificate of occupancy.	N	N	N	Adopt
112.3	N/A	Authority to disconnect service utilities	Grants the code official the authority to disconnect service utilities to eliminate immediate hazard to life or property or where such utility connection has been made without approval.	Y	N	N	Adopt
113	N/A	Stop Work Order	New section	N	N	N	Adopt
113.1	N/A	Authority	Grants the code official the authority to issue a stop work order if work is not performed per this code or in a dangerous or unsafe manner.	Y	N	N	Adopt
113.2	N/A	Issuance	Describes how to issue the stop work order.	N	N	N	Adopt
113.3	N/A	Emergencies	Provides exception to providing written notice if an emergency exists. Does not define an emergency.	N	N	N	Adopt
113.4	N/A	Failure to comply	Any person who does not stop work after being served a stop work order, with exception, shall be subject to fines established by the authority having jurisdiction. Since authority having jurisdiction isn't defined, recommend modifying to refer to code official in lieu of authority having jurisdiction.	N	N	Y	<b>Adopt with modification</b>
114	109	Means of Appeals	Renumbered from previous section and expanded.	N	N	N	Adopt
114.1	N/A	General	Defines who creates the board of appeals and its purpose. Does away with most prescriptive procedural articles found in 2018 IMC.	N	N	N	Adopt

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114.2	109.1	Limitations on authority	Minor revisions to 2018 paragraphs.	N	N	N	Adopt
114.3	109.2.1	Qualifications	Defines the board to be made up of qualified members and not employees of the jurisdiction. Removes stipulated qualifications based on experience.	N	N	N	Adopt
114.4	N/A	Administration	Directs the code official to take immediate action in accordance with the decision of the board.	N	N	N	Adopt
115	108	Violations	Section is renumbered.	N	N	N	Adopt
<b>Chapter 11 Refrigeration</b>							
<b>TAG Member Assigned: Jeff Yirak, Brandon Stock</b>							
1101.1	1101.1	Scope	Clarifies language.	N	N	N	Adopt
1101.1.1	N/A	Refrigerants other than ammonia	Differentiates between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter.	N	N	N	Adopt
1101.1.2	N/A	Ammonia refrigerant	Differentiates between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter.	N	N	N	Adopt
1101.2	1101.2	Factory-built equipment and appliances	Provides a table to correlate equipment with relevant UL or UL/CSA standard. <b>Delete Existing State Amendment</b>	N	N	Delete existing amendment	Adopt
Deleted	1101.6	General	Redundant differentiation between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter. <b>Delete Existing State Amendment</b>	N	N	Delete existing amendment	Adopt
1101.6	1101.7	Maintenance	Renumbered	N	N	N	Adopt

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1101.7	1101.8	Change in refrigerant type	Renumbered	N	N	N	Adopt
1101.8	1101.9	Refrigerant discharge	Renumbered	N	N	N	Adopt
1101.9	1101.10	Locking access port caps	Renumbered	N	N	N	Adopt
1103.1	1103.1	Refrigerant classification	Added additional and LGW refrigerants. Fixed typographical error on R-452A ppm refrigerant per occupied space. Removed ammonia entry and revised footnotes.	N	N	N	Adopt
1104.2.2	1104.2.2	Industrial occupancies and refrigerated rooms	References to ammonia removed for consistency.	N	N	N	Adopt
1104.3.2	1104.3.2	Nonindustrial occupancies	Clarifies definition of type of assembly area	N	N	N	Adopt
1104.3.3	1104.3.3	All occupancies	References to ammonia removed for consistency.	N	N	N	Adopt
1104.3.4	1104.3.4	Protection from refrigerant decomposition.	References to ammonia removed for consistency.	N	N	N	Adopt
1105.6.3	1105.6.3	Ventilation rate	<b>Existing State Amendment</b> References to ammonia removed for consistency.	N	N	Delete existing amendment	Adopt
Deleted	1105.8	Ammonia discharge	References to ammonia removed for consistency.	N	N	N	Adopt
1105.8	1105.9	Emergency pressure control system	Proposed language defers to IFC. Section 605.10 needs to be updated to 608.11 for 2021 IFC. IFC also refers to ammonia systems; IMC should explicitly except ammonia systems in this article.	N	N	Y	Add explicit exception for ammonia systems when referring to IFC.
1105.9	N/A	Means of egress	Consolidates existing requirements from the IBC into the IMC for ease of reference.	N	N	N	Adopt

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Deleted	1106.3	Ammonia room ventilation	References to ammonia removed for consistency.	N	N	N	Adopt
1106.3	1106.4	Flammable refrigerants	Clarification to exception regarding compliant ventilation.	N	N	N	Adopt
1106.4	1106.5	Special requirements for Group A2L refrigerant machinery rooms	Further qualification of the existing allowance for machinery rooms containing A2L refrigerants to use refrigerant detection and ventilation systems in lieu of Class I, Division 2 hazardous location classification requirements of NFPA 70.	N	N	N	Adopt
1106.4.1	1106.5.1	Ventilation system activation	Proposed language defers to IFC. Section 605.8 needs to be updated to 608.9 for 2021 IFC. IMC repeats the "at or below a refrigerant concentration" activation condition, but IFC includes an additional refrigerant leak alarm condition.	N	N	Y	Adopt but remove the redundant detection and activation language.
1106.4.2	1106.5.2	Emergency ventilation system	<b>Existing State Amendment</b> Renumbered <b>Staff recommendation:</b> Retain and renumber existing state amendment <b>Retain per staff recommendation</b>	N	N		Adopt
1106.4.3	1106.5.3	Emergency ventilation system discharge	Renumbered	N	N	N	Adopt
1106.5	1106.6	Remote controls	Renumbered	N	N	N	Adopt
1106.5.1	1106.6.1	Refrigeration system emergency shutoff	Renumbered	N	N	N	Adopt
1106.5.2	1106.6.2	Ventilation system	Renumbered	N	N	N	Adopt
1106.6	1106.7	Emergency signs and labels	Renumbered	N	N	N	Adopt

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1107.1	New	Piping Material	<b>1107.1 Piping.</b> Refrigerant piping material for other than R-717 (ammonia) systems shall conform to the requirements in this section. Piping material and installations for R-717 (ammonia) refrigeration systems shall comply with IIAR 2.	Y		Y	
1107.2	New	Used Materials	<b>1107.2 Used materials.</b> Used pipe, fittings, valves and other materials that are to be reused shall be clean and free from foreign materials and shall be approved for reuse.	Y		Y	
1107.3	New	Materials Rating	<b>1107.3 Materials rating.</b> Materials, joints and connections shall be rated for the operating temperature and pressure of the refrigerant system. Materials shall be suitable for the type of refrigerant and type of lubricant in the refrigerant system.  Magnesium alloys shall not be used in contact with any halogenated refrigerants. Aluminum, zinc, magnesium and their alloys shall not be used in contact with R-40 (methyl chloride).	Y		Y	
1107.4	New	<b>Piping materials standards</b>	<b>1107.4 Piping materials standards.</b> Refrigerant pipe shall conform to one or more of the standards listed in Table 1107.4. The exterior of the pipe shall be protected from corrosion and degradation.	Y		Y	
1107.5	New	Pipe Fittings	<b>1107.5 Pipe fittings.</b> Refrigerant pipe fittings shall be approved for installation with the piping materials to be installed, and shall conform to one of more of the standards listed in Table 1107.5 or shall be <i>listed and labeled</i> as complying with UL 207.	Y		Y	

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1107.6	New	Valves	<b>1107.6 Valves.</b> Valves shall be of materials that are compatible with the type of piping material, refrigerants and oils in the system. Valves shall be <i>listed</i> and <i>labeled</i> and rated for the temperatures and pressures of the refrigerant systems in which the valves are installed.	Y		Y	
1107.7	New	<b>Flexible connectors, expansion and vibration compensators</b>	<b>1107.7 Flexible connectors, expansion and vibration compensators.</b> Flexible connectors and expansion and vibration control devices shall be <i>listed</i> and <i>labeled</i> for use in refrigerant systems.	Y		Y	
1108.1,2,3,4,5,6,7,8,9	New	Joints and Connections	New Section – renamed from field test to Joints and connections	Y		Y	
1109.1,2,3,4,5,6,7,8	New	Refrigerant Pipe Installation	New Section	Y		Y	
1110.1,2,3,4,5,6,7,8	New	Refrigeration Piping System Testing	New Section	Y		Y	
1111	New	Periodic Testing	Renumbered section that is not currently in the WAC/RCW	Y		Y	