

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
2021 INTERNATIONAL FUEL GAS CODE							
Chapter 1 Scope and Administration							
TAG Member Assigned: Valerie Graber							
101.2	101.2	Scope	Base code Added “above grade plane and this code” gives designer the ability to design under IBC or IRC. State amendment does not match IMC 101.2. No reference to R occupancies. State amendment Exception 2. Update to 2020 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the 2021 Edition of ANSI Z223.1/NFPA54 (National Fuel Gas Code)	N	N	Y	Scope needs to be consistent with other codes.
116.4	NA	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	Adopt with modifications. See IMC 113.4.
Chapter 2 Definitions							
TAG Member Assigned: Valerie Graber							
202	202	Point of delivery	Added “system shutoff” and “after” to establish match with prior code language.	N	N	N	
202	202	Service meter assembly, System shutoff	Establishing the POD governed by this code. Energy code may require additional metering for natural gas appliances which is not POD.	N	N	N	

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202 NEW		Permanent construction	Add the state amendment to be consistent with the IMC and addresses IFGC 306.1. PERMANENT CONSTRUCTION. Construction that, if removed, would disturb the structural integrity of the building or the fire-resistance rating of a building assembly.	N	N	Y	Code change proposal.
Chapter 3 General Regulations							
TAG Member Assigned: Valerie Graber							
303.3.1	303.3.1	Fireplaces & dec appliances in Group I-2.	2018 prohibits gas appliances in Group I-2 cond 2 (except direct vent in lobbys). No requirements for Group I-2 cond 1. 2020 prohibits gas appliances in Group I-2 cond 2 (except direct vent in lobbys). Prohibits gas appliances in Group I-2 cond 1 sleeping rooms.	Y	N	N	
304.8	304.8	Engineered installations / Combustion air.	Modified, "shall be approved" to "determined using engineering methods". Prior the reviewer/inspector took on the responsibility to size the opening but now there must be engineering.	N	N	N	
306.5 NEW	306.5	Equipment and appliances on roofs or elevated structures.	Add this state amendment to be consistent with the IMC.	N	N	Y	Code change proposal.
306.6	306.6	Guards	Added – "and each end of the roof hatch parallel to the roof edge". Consistent with the IMC.	N	N	N	
306.7 NEW		Appliances above ceilings	Add this state amendment to be consistent with the IMC.	N	N	Y	Code change proposal.

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307.2	307.2	Fuel-burning appliances	The termination of concealed condensate piping shall be marked to indicate whether the piping is connected to the primary drain or to the secondary drain. Consistent with the IMC.	N	N	N	
Chapter 4 Gas Piping Installations							
TAG Member Assigned: Valerie Graber							
402.3	402.3	Sizing	Changed "and shall be approved" to "engineering methods". Prior the reviewer/inspector took on the responsibility to size the opening but now there must be engineering.	N	N	N	
402.6	402.6	Allowable pressure drop	Modified "appliance" to "all appliances".	N	N	N	
402.7	402.7	Max operating pressure	Added "listed to ANSI LC-4/CSA6.32 and installation instructions".	N	N	N	
403.8.3	403.9.3	Metal pipe threads	Modified "thread joint compounds" to "threaded joint sealing".	N	N	N	
404.5	404.5	Fittings in concealed locations	Added "plugs and tees".	Y	N	N	
413.2.3	413.2.3	Residential fueling appliances	Added "listed to CSA/ANSI NGV 5.1".	N	N	N	
413.2.4	413.2.4	Nonresidential fueling appliances	Added "listed to CSA/ANSI NGV 5.2". Previously code referred to residential only. Consistent with the IFC 2308.2.3.	N	N	N	
Chapter 5 Chimneys and Vents							
TAG Member Assigned: Valerie Graber							

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503.5.6.1	503.5.6.1	Chimney lining	Pervious code allowed existing unlined chimneys to remain if the appliance matched. This has been removed and all existing chimneys must be brought up to code when the appliance is replaced.	Y	Y	N	
503.8	503.8	Venting system terminal clearances	Took out the language and replaced it with house figure. Figure was appendix C and it has been updated with a chart.	Y	N	N	
503.10.7	503.10.6	Connector junctions	New section to require a Tee or Wye fitting when connecting a vent.	N	N	N	
Chapter 6 Specific Appliances							
TAG Member Assigned: Valerie Graber							
614.4.1	614.6	Terminal location	New section – “exhaust termination to 3’ from openings into the building. Gas dry exhaust terminations did not have a distance requirement. It serves as the gas vent”. Much needed section.	Y	N	N	
614.7	614.6	Makeup air	All dryer closets need makeup air. Prior only dryers exhausting 200 CFM or more. Problem with 2018 language, cannot control replacement dryers.	Y	Y	N	
618.6	618.6	Furnace plenums and air ducts	New text added. “Return air shall not be taken from the mech room containing the furnace.” Return air must be ducted. The code is redundant.	N	N	N	
623.2	623.2	Prohibited location	Removed an unnecessary exception.	N	N	N	
Chapter 7 Gaseous Hydrogen Systems							
TAG Member Assigned: Valerie Graber							

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			No changes in the IFGC Ch7 redline.				
Chapter 8 Referenced Standards							
TAG Member Assigned: Valerie Graber							
NFPA	NFPA	NFPA 58-17	This should be NFPA 58-20 to be consistent with IMC, IRC & IFC.	N	N	Y	58 -20 LP Gas
2021 INTERNATIONAL RESIDENTIAL CODE, Chapters 12 - 24							
Chapter 18 Chimneys and Vents							
TAG Member Assigned: Staff							
M1802.4	New	Blocked vent switch	An additional safety device for oil-fired appliances has been added to be consistent with what is required for some gas fired appliances	Y	Y	N	Adopt
Chapter 20 Boilers and Water Heaters							
TAG Member Assigned: Chris McCarthy, Brandon Stock							
			No Significant Changes				
M2000	M2000	Informational Note	Existing State Amendment Adds pointer to L&I boiler requirements Staff Recommendation: Retain state amendment				Retain state amendment
M2005.1	M2005.1	General	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment

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Chapter 21 Hydronic Piping							
TAG Member Assigned: Chris McCarthy							
M2101.1 1-31	new	Materials/joints/ equipment	Provisions for ground source hat pump piping extended to all hydronic pipe sections. Consistency is beneficial.			N	accept
M2101.3	M2101.3	Protection of potable water	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment
M2101.7	M2101.7	Prohibited tee applications	Existing State Amendment Section removed to allow secondary pumping Staff Recommendation: Retain state amendment				Retain state amendment section not adopted
M2103.3	M2103.3	Piping joints	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment more restrictive than IRC
2105.7	2105.7	Preparation of ends	Use manufacturer spec	N		N	accept
M2105.9	M2105.9	CPVC plastic pipe	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment more restrictive than IRC

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M2105.1 4	M2105.1 4	PVC plastic pipe	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment more restrictive than IRC
M2105.1 8	M2105.1 8	Protection of potable water	Existing State Amendment Changes reference from IPC to state plumbing code Staff Recommendation: Retain state amendment				Retain state amendment
M2105.1 9	M2105.1 9	Pipe penetrations	Existing State Amendment Changes reference from IPC to state plumbing code				Retain state amendment
Chapter 22 Special Piping and Storage Systems							
TAG Member Assigned: Staff							
M2202.1	M2202.1	Materials	Adds stainless steel tubing conforming to ASTM A254 or ASTM A269	N	N	N	Adopt
M2202.2	M2202.2	Joints and fittings	Removes the word "standard" from "Piping shall be connected with standard fittings compatible with the piping material."	N	N	N	Adopt
Chapter 23 Solar Thermal Energy Systems							
TAG Member Assigned: Mike Lubliner, Brandon Stock							
			No changes in the IRC redline.				

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M2300 etc.	Same	Solar Thermal Energy Systems	Existing State Amendment Changes references from IRC plumbing and IRC energy changes to Washington state references Staff Recommendation: Retain state amendment				
Chapter 24 Fuel Gas							
TAG Member Assigned: Valerie Graber							
G2403	G2403	Point of delivery	Added "system shutoff" and "after" to establish match with prior code language.	N	N	N	
G2403	G2403	Regulator, Monitoring	New definition for more clarification – now matches IFGC.	N	N	N	
G2403	G2403	Service meter assembly, System shutoff	Establishing the POD governed by this code. Energy code may require additional metering for natural gas appliances which is not POD.	N	N	N	
G2414.8.3	G2414.9.3	Thread joint sealing	Modification – changed "compound to sealing"	N	N	N	
G2415.5	G2415.5	Fittings in concealed locations	Added "plugs and tees".	Y	N	N	
G2427.5.5.1	G2427.5.5.1	Chimney lining	Pervious code allowed existing unlined chimneys to remain if the appliance matched. This has been removed and all existing chimneys must be brought up to code when the appliance is replaced.	Y	Y	N	
G2427.8	G2427.8	Venting system terminal clearances	Took out the language and replaced it with house figure. Figure was appendix C and it has been updated with a chart.	Y	N	N	
G2439.5	G2439.5	Makeup air	All dryer closets need makeup air. Prior only dryers exhausting 200 CFM or more.	Y	Y	N	
G2447.2	G2447.2	Prohibited location	Removed an unnecessary exception.	N	N	N	

