



**Oregon Mechanical Specialty Code (OMSC)  
Appendix D – New Construction Requirements**

The authority to administer and enforce construction standards in the State of Oregon is vested with the Building Codes Division (division) of the Department of Consumer and Business Services. The division currently uses the International Mechanical Code (IMC) as published by the International Codes Council (ICC) as the base model code for the Oregon Mechanical Specialty Code (OMSC).

Through its code promulgation process, the ICC places construction requirements in the IMC as well as the International Fire Code (IFC). This has created much confusion in Oregon regarding the authority to enforce construction requirements which are not printed in or referenced through the state building code (ref. ORS 455.010).

The Department of Justice recently provided advice on the division’s authority and adoption practices of construction standards. The division was advised to print all construction requirements within the state building code as printed in the IFC. Accordingly, OMSC Appendix D now references Appendix N of the Oregon Structural Specialty Code for those construction requirements published in the IFC and clarifies related scoping requirements.

Effective January 1, 2018, building officials, plans examiners, and inspectors may only enforce construction requirements which are either printed in or adopted by reference through the state building code. See the attached “Preamble” for further clarification.

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## APPENDIX D

# REFERENCED CONSTRUCTION REQUIREMENTS

### Preamble

- i. **Background.** Pursuant to ORS 455.010 and ORS 455.020, the Oregon Building Codes Division (the division) has been charged with the adoption of a state building code comprised of the specialty codes that govern the construction, reconstruction, alteration, and repair of buildings and other structures, and the installation of mechanical devices and equipment in those buildings and structures. One of the goals of the state building code is to establish predictability and uniformity in construction standards across the state.

The Department of Justice provided advice on the division's authority and adoption practices of construction standards. The division was advised to print all construction requirements within the state building code. Accordingly, Appendix D now specifies standards for those state building code requirements previously published elsewhere and clarifies related scoping requirements.

- ii. **Effective Date.** Effective January 1, 2018, building officials, plans examiners, and inspectors may not enforce construction requirements which are printed outside of the state building code including, but not limited to, construction requirements printed in the Oregon Fire Code.
  - a. **Effect on Cite-it Write-it Requirement.** Pursuant to OAR 918-098-1900 (Cite-it Write-it Requirement) and the enforcement of the *Oregon Mechanical Specialty Code*, citations are limited to the following:
    - i. Oregon Revised Statutes as noted in the *Oregon Mechanical Specialty Code*;
    - ii. Oregon Administrative Rules as noted in the *Oregon Mechanical Specialty Code*;
    - iii. References to the *Oregon Structural Specialty Code* and all adopted appendices, including Appendix N;
    - iv. The *Oregon Mechanical Specialty Code* and all adopted appendices, including Appendix D and
    - v. Specific standards adopted by reference in the *Oregon Mechanical Specialty Code*.
- iii. **References to Fire Code.** All references to a "Fire Code" in the *Oregon Mechanical Specialty Code* are revised as annotated in Table D101. (*see below*). Construction provisions of the "Fire Code" are found in Appendix N of the *Oregon Structural Specialty Code*.

**TABLE D101  
2014 OMSC REFERENCES**

Section / Table	Action	Revision
<b>CHAPTER 2 – DEFINITIONS</b>		
201.3	Replace with:	<b>201.3 Terms defined in other codes.</b> Where terms are not defined in this code and are defined in the <i>Building Code</i> , <i>Fire Code</i> , <i>Fuel Gas Code</i> or <i>Plumbing Code</i> , such terms shall have the meanings ascribed to them as in those codes.
202	Delete:	<del><b>FIRE CODE.</b> For the purpose of the <i>Oregon Structural Specialty Code</i>, fire code shall mean those portions of the <i>Oregon Fire Code</i> which include construction, reconstruction, alteration, repair or installation of materials and equipment that is covered by the <i>State Building Code</i>.</del>
<b>CHAPTER 5 – EXHAUST SYSTEMS</b>		
502.4	Replace with:	<b>502.4 Stationary storage battery systems.</b> Stationary storage battery systems, as regulated by <u><b>Appendix N of the Building Code</b></u> Section <del>608</del> of the <i>Fire Code</i> , shall be provided with ventilation in accordance with this chapter and Section 502.4.1 or 502.4.2. Flooded lead acid flooded nickel cadmium and VRLA battery stationary storage systems of greater than 7 batteries or over 600 amp-hour total capacity shall meet the ventilation requirements of Section 502.4.2. Stationary storage battery systems shall not be located in a space with an open combustion source
502.4.3	Replace with:	<b>502.4.3 Supervision.</b> Mechanical ventilation systems required by Section 502.4, as regulated by <u><b>Appendix N of the Building Code</b></u> Section <del>608.6.3</del> of the <i>Fire Code</i> , shall be supervised by an approved central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.
502.5	Replace with:	<b>502.5 Valve-regulated lead-acid batteries in cabinets.</b> Valve-regulated lead-acid (VRLA) batteries installed in cabinets, consisting of greater than 7 batteries, or over 600 amp-hour capacity total capacity, or systems as regulated by <u><b>Appendix N of the Building Code</b></u> Section <del>608.6.2</del> of the <i>Fire Code</i> , shall be provided with ventilation in accordance with Section 502.5.1 or 502.5.2.
502.5.3	Replace with:	<b>502.5.3 Supervision.</b> Mechanical ventilation systems required by Section 502.5, for system regulated by Section <del>N608.6.3</del> <b>in Appendix N of the Building Code</b> of the <i>Fire Code</i> , shall be supervised by an approved central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.
502.7.1	Replace with:	<b>502.7.1 Limited spraying spaces.</b> Positive mechanical ventilation which provides a minimum of six complete air changes per hour shall be installed in limited spraying spaces. Such system shall meet the requirements of <u><b>Appendix N of the Building Code</b></u> <del>the Fire Code</del> for handling flammable vapors. Explosion venting is not required.
502.8.1	Replace with:	<b>502.8.1 Storage in excess of the maximum allowable quantities.</b> <b>Exception:</b> Storage areas for flammable solids complying with <u><b>Appendix N of the Building Code</b></u> Section <del>3604</del> of the <i>Fire Code</i> .
502.9.1	Replace with:	<b>502.9.1 Compressed gases – medical gas systems.</b> Rooms for storage of compressed medical gasses in amounts exceeding the permit amounts for compressed gases in the <i>Building Code</i> <del>Fire Code</del> , and that do not have an exterior wall, shall be exhausted through a duct to the exterior of the building. Both separate airstreams shall be enclosed in a 1-hour-rated shaft enclosure from the room to the exterior. Approved mechanical ventilation shall be provided at a minimum rate of 1 cfm/ft <sup>2</sup> [0.00508 m <sup>3</sup> /(s • m <sup>2</sup> )] of the area of the room.  Gas cabinets for the storage of compressed medical gases in amounts exceeding the permit amounts for compressed gases in the <i>Building Code</i> <del>Fire Code</del> shall be connected to an exhaust system. The average velocity of ventilation at the face of access ports or windows shall be not less than 200 feet per minute (1.02 m/s) with a minimum velocity of 150 feet per minute (0.76 m/s) at any point at the access port or window.

Section / Table	Action	Revision
502.9.5	Replace with:	<b>502.9.5 Flammable and combustible liquids.</b> <b>Exception:</b> This section shall not apply to flammable and combustible liquids that are exempt from the <u><i>Building Code Fire Code</i></u> .
502.9.5.2	Replace with:	<b>502.9.5.2 Storage rooms and warehouses.</b> Liquid storage rooms and liquid storage warehouses for quantities of liquids exceeding those specified in the <u><i>Building Code Fire Code</i></u> shall be ventilated in accordance with Section 502.8.1.
502.9.5.3	Replace with:	<b>502.9.5.3 Cleaning machines.</b> Areas containing machines used for parts cleaning in accordance with the <u><i>Building Code Fire Code</i></u> shall be adequately ventilated to prevent accumulation of vapors.
502.9.8.2	Replace with:	<b>502.9.8.2 Local exhaust for portable tanks.</b> A means of local exhaust shall be provided to capture leakage from indoor and outdoor portable tanks. The local exhaust shall consist of portable ducts or collection systems designed to be applied to the site of a leak in a valve or fitting on the tank. The local exhaust system shall be located in a gas room. Exhaust shall be directed to a treatment system where required by the <u><i>Building Code Fire Code</i></u> .
502.9.8.3	Replace with:	<b>502.9.8.3 Piping and controls—stationary tanks.</b> Filling or dispensing connections on indoor stationary tanks shall be provided with a means of local exhaust. Such exhaust shall be designed to capture fumes and vapors. The exhaust shall be directed to a treatment system where required by the <u><i>Building Code Fire Code</i></u> .
502.9.8.5	Replace with:	<b>502.9.8.5 Treatment system.</b> The exhaust ventilation from gas cabinets, exhausted enclosures and gas rooms, and local exhaust systems required in Sections 502.9.8.2 and 502.9.8.3 shall be directed to a treatment system where required by the <u><i>Building Code Fire Code</i></u> .
502.9.8.6	Replace with:	<b>502.9.8.6 Process equipment.</b> Effluent from indoor and outdoor process <i>equipment</i> containing highly toxic or toxic compressed gases which could be discharged to the atmosphere shall be processed through an exhaust scrubber or other processing system. Such systems shall be in accordance with the <u><i>Building Code Fire Code</i></u> .
502.9.11	Replace with:	<b>502.9.11 Silane gas.</b> Exhausted enclosures and gas cabinets for the indoor storage of silane gas in amounts exceeding the maximum allowable quantities per control area shall comply with <b>the <u><i>Building Code</i></u> Chapter 64 of the <i>Fire Code</i></b> .
502.10	Replace with:	<b>502.10 Hazardous production materials (HPM).</b> Exhaust ventilation systems and materials for ducts utilized for the exhaust of HPM shall comply with this section, other applicable provisions of this code, the <u><i>Building Code</i></u> <del>and the <i>Fire Code</i></del> .
502.10.1	Replace with:	<b>502.10.1 Where required.</b> Exhaust ventilation systems shall be provided in the following locations in accordance with the requirements of this section and the <u><i>Building Code</i></u> . <ol style="list-style-type: none"> <li>8. Cabinets containing pyrophoric liquids or Class 3 water-reactive liquids: Exhaust ventilation for cabinets in fabrication areas containing pyrophoric liquids shall be as required in <b>the <u><i>Building Code</i></u> Section 2705.2.3.4 of the <i>Fire Code</i></b>.</li> </ol>
502.10.3	Replace with:	<b>502.10.3 Treatment systems.</b> Treatment systems for highly toxic and toxic gases shall comply with the <u><i>Building Code Fire Code</i></u> .
502.16.2	Replace with:	<b>502.16.2 Operation.</b> The mechanical ventilation system shall operate continuously. <b>Exceptions:</b> <ol style="list-style-type: none"> <li>1. Mechanical ventilation systems that are interlocked with a gas detection system designed in accordance with the <u><i>Building Code Fire Code</i></u>.</li> </ol>

Section / Table	Action	Revision
510.2.1	Replace with:	<b>510.2.1 Lumber yards and woodworking facilities.</b> <i>Equipment</i> or machinery located inside buildings at lumber yards and woodworking facilities which generates or emits combustible dust shall be provided with an <i>approved</i> dust-collection and exhaust system installed in conformance with this section and <del>the <i>Building Code</i></del> <i>Fire Code</i> . <i>Equipment</i> and systems that are used to collect, process or convey combustible dusts shall be provided with an <i>approved</i> explosion-control system.
510.2.2	Replace with:	<b>510.2.2 Combustible fibers.</b> <i>Equipment</i> or machinery within a building which generates or emits combustible fibers shall be provided with an <i>approved</i> dust-collecting and exhaust system. Such systems shall comply with this code and the <del><i>Building Code</i></del> <i>Fire Code</i> .
510.4	Replace with:	<b>510.4 Independent system.</b> Hazardous exhaust systems shall be independent of other types of exhaust systems. Incompatible materials, as defined in the <del><i>Building Code</i></del> <i>Fire Code</i> , shall not be exhausted through the same hazardous exhaust system. Hazardous exhaust systems shall not share common shafts with other duct systems, except where such systems are hazardous exhaust systems originating in the same fire area.
511.1.1	Replace with:	<p><b>511.1.1 Collectors and separators.</b></p> <p><b>Exceptions:</b></p> <ol style="list-style-type: none"> <li>1. Collectors such as “Point of Use” collectors, close extraction weld fume collectors, spray finishing booths, stationary grinding tables, sanding booths, and integrated or machine-mounted collectors shall be permitted to be installed indoors provided the installation is in accordance with <del>the <i>Building Code</i></del>, NFPA 654 and 664, the <i>Electric Code</i> and <i>approved</i> by the <i>building official</i>.</li> <li>2. Collectors in independent exhaust systems handling combustible dusts at a facility shall be permitted to be installed indoors provided that there are not more than three independent collectors servicing not more than five dust producing <i>appliances</i>, such as collectors are installed in compliance with <del>the <i>Building Code</i> Table 2204.1 of the <i>Fire Code</i></del>, NFPA 654 and 664, and the <i>Electrical Code</i> and <i>approved</i> by the <i>building official</i>.</li> </ol>
513.1	Replace with:	<b>513.1 Scope and purpose.</b> This section applies to mechanical and passive smoke control systems that are required by the <del><i>Building Code</i></del> <i>or the Fire Code</i> . The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, the timely restoration of operations, or for assistance in fire suppression or overhaul activities. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910 of the <del><i>Building Code</i></del> <i>or the Fire Code</i> .
513.2	Replace with:	<b>513.2 General design requirements.</b> Buildings, structures, or parts thereof required by the <del><i>Building Code</i></del> <i>or the Fire Code</i> to have a smoke control system or systems shall have such systems designed in accordance with the applicable requirements of Section 909 of the <i>Building Code</i> and the generally accepted and well-established principles of engineering relevant to the design. The <i>construction documents</i> shall include sufficient information and detail to describe adequately the elements of the design necessary for the proper implementation of the smoke control systems. These documents shall be accompanied with sufficient information and analysis to demonstrate compliance with these provisions.
513.12	Replace with:	<b>513.12 Detection and control systems.</b> Fire detection systems providing control input or output signals to mechanical smoke control systems or elements thereof shall comply with NFPA 72 and the requirements of Chapter 9 of the <del><i>Building Code</i></del> <i>or the Fire Code</i> . Such systems shall be equipped with a control unit complying with UL 864 and listed as smoke control <i>equipment</i> .

Section / Table	Action	Revision
513.12.2	Replace with:	<b>513.12.2 Activation.</b> Smoke control systems shall be activated in accordance with the <i>Building Code</i> <del>or the Fire Code</del> .
513.12.3	Replace with:	<b>513.12.3 Automatic control.</b> Where completely automatic control is required or used, the automatic control sequences shall be initiated from an appropriately zoned automatic sprinkler system complying with <u>the Building Code</u> <del>Section 903.3.1.1 of the Fire Code</del> , from manual controls that are readily accessible to the fire department, and any smoke detectors required by engineering analysis.
513.15	Replace with:	<b>513.15 Control diagrams.</b> Identical control diagrams shall be provided and maintained as required by the <u>Building Code</u> <del>Fire Code</del> .
513.16	Replace with:	<b>513.16 Fire fighter's smoke control panel.</b> A fire fighter's smoke control panel for fire department emergency response purposes only shall be provided in accordance with the <u>Building Code</u> <del>Fire Code</del> .
513.17	Replace with:	<b>513.17 System response time.</b> Smoke control system activation shall comply with the <u>Building Code</u> <del>Fire Code</del> .
513.18	Replace with:	<b>513.18 Acceptance testing.</b> Devices, <i>equipment</i> , components and sequences shall be tested in accordance with the <u>Building Code</u> <del>Fire Code</del> .
513.19	Replace with:	<b>513.19 System acceptance.</b> Acceptance of the smoke control system shall be in accordance with the <u>Building Code</u> <del>Fire Code</del> .

#### CHAPTER 6 – DUCT SYSTEMS

606.2.1	Replace with:	<b>606.2.1 Return air systems.</b> <b>Exception:</b> Smoke detectors are not required in the return air system where all portions of the building served by the air distribution system are protected by area smoke detectors connected to a fire alarm system in accordance with the <u>Building Code</u> <del>Fire Code</del> . The area smoke detection system shall comply with Section 606.4.
606.4.1	Replace with:	<b>606.4.1 Supervision.</b> The duct smoke detectors shall be connected to a fire alarm system where a fire alarm system is required by <u>the Building Code</u> <del>Section 907.2 of the Fire Code</del> . The actuation of a duct smoke detector shall activate a visible and audible supervisory signal at a constantly attended location.

#### CHAPTER 9 – SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

908.7	Replace with:	<b>908.7 Refrigerants and hazardous fluids.</b> Heat exchange <i>equipment</i> that contains a refrigerant and that is part of a closed refrigeration system shall comply with Chapter 11. Heat exchange <i>equipment</i> containing heat transfer fluids which are flammable, combustible or hazardous shall comply with the <u>Building Code</u> <del>Fire Code</del> .
924.1	Replace with:	<b>924.1 General.</b> Stationary fuel cell power systems having a power output not exceeding 10 MW shall be tested in accordance with ANSI/CSA America FC 1 and shall be installed in accordance with the manufacturer's installation instructions, NFPA 853, <b>and</b> the <u>Building Code</u> <del>and the Fire Code</del> .
926.1	Replace with:	<b>926.1 Installation.</b> The installation of gaseous hydrogen systems shall be in accordance with the applicable requirements of this code, <del>the Fire Code, the Mechanical Code</del> and the <u>Building Code</u> .

#### CHAPTER 11 – REFRIGERATION

1105.9	Replace with:	<b>1105.10 Emergency pressure control system.</b> Refrigeration systems containing more than 6.6 pounds (3 kg) of flammable, toxic or highly toxic refrigerant or ammonia shall be provided with an emergency pressure control system in accordance with <u>the Building Code</u> <del>Section 606.10 of the Fire Code</del> .
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APPENDIX D

Section / Table	Action	Revision
1106.6	Replace with:	<b>1106.11 Emergency signs and labels.</b> Refrigeration units and systems shall be provided with <i>approved</i> emergency signs, charts, and labels in accordance with the <i>Building Code Fire Code</i> .
<b>CHAPTER 13 – FUEL OIL PIPING AND STORAGE</b>		
1301.2	Replace with:	<b>1301.2 Storage and piping systems.</b> Fuel-oil storage systems shall comply with <u>the Building Code</u> Section 603.3 of the <i>Fire Code</i> . Fuel-oil piping systems shall comply with the requirements of this code and the Oregon Department of Environmental Quality.
1301.5	Delete:	<del><b>1301.5 Tanks abandoned or removed.</b> All exterior above-grade fill piping shall be removed when tanks are abandoned or removed. Tank abandonment and removal shall be in accordance with Section 5704.2.13 of the <i>Fire Code</i>.</del>
<b>APPENDIX C – FUEL GAS</b>		
C201.3	Replace with:	<b>C201.3 Terms defined in other codes.</b> Where terms are not defined in this code and are defined in the <i>Building Code</i> , <i>Fire Code</i> , <i>Mechanical Code</i> , <i>Electrical Code</i> or <i>Plumbing Code</i> , such terms shall have meanings ascribed to them as in those codes.
C401	Replace with:	<b>Notice of installation.</b> A “Notice of Installation” is required by the State Fire Marshal for all LP-gas tank installations. <del>For i</del> Installation requirements of LP-gas tanks and tubing or piping up to the first stage regulator, <del>see Article 82 of the <i>Fire Code</i></del> <b>are under the authority of the State Fire Marshal.</b>
C412.1	Delete:	<del><b>C412.1 General.</b> Motor fuel dispensing facilities for LP-gas fuel shall be in accordance with the <i>Fire Code</i></del>
C413.1	Delete:	<del><b>C413.1 General.</b> Motor fuel dispensing facilities for CNG fuel shall be in accordance with the <i>Fire Code</i>.</del>
C632.1	Replace with:	<b>C632.1 General.</b> Stationary fuel-cell power systems having a power output not exceeding 10 MW shall be tested in accordance with ANSI CSA America FC 1 and shall be installed in accordance with the manufacturer’s installation instructions, NFPA 853, <b>and</b> the <i>Building Code</i> and the <i>Fire Code</i> .
C634.1	Replace with:	<b>C634.1 Installation.</b> The installation of gaseous hydrogen systems shall be in accordance with the applicable requirements of this code, <del>the <i>Fire Code</i></del> and the <i>Building Code</i> .