



# Oregon Energy Efficiency Specialty Code

## Mechanical Compliance Certificate

### Water Heating



Developed with  
COMcheck Software  
Version 3.8.0

#### Department of Consumer and Business Services Building Codes Division

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### SECTION 1: PROJECT INFORMATION

**Project type:** New construction  Addition  Alteration  *(check only one)*

**Project title:**

**Construction site**

Address:		City:		State:	<b>OR</b>	ZIP:	
Permit number:				Permit date:			

**Owner/agent**

First and last name:							
Company:							
Address:		City:		State:		ZIP:	
Phone number:				E-mail:			

**Designer/contractor**

First and last name:							
Company:							
Address:		City:		State:		ZIP:	
Phone number:				E-mail:			



**SECTION 2: GENERAL INFORMATION**

Building type: \_\_\_\_\_

Floor area sq. ft.: \_\_\_\_\_

**Water heating**

	Fuel type	Quantity	Capacity gallons	Proposed efficiency	Code minimum efficiency*
<b>Storage</b>	<b>Electric</b>				
	<b>Gas</b>				
	<b>Oil</b>				

**Check all that apply:**  
 System has a circulation pump   
 Heat trace tape installed   
 Heat pool/spa/hot tub system

		Quantity	Capacity gallons	Proposed efficiency	Code minimum efficiency*
<b>Instantaneous</b>	<b>Electric</b>				
	<b>Gas</b>				
	<b>Oil</b>				

**Check all that apply:**  
 System has a circulation pump   
 Heat trace tape installed   
 Heat pool/spa/hot tub system

\* See Table 504.2

(print additional pages if necessary)

**SECTION 3: REQUIREMENTS CHECKLIST**

**Requirements specific to: Water Heater 1**

- [504.2] Service water-heating equipment performance efficiency.** Water heating equipment efficiency has been verified through data furnished by the manufacturer or through certification under an approved certification program.
- [504.3] Temperature controls.** Service water-heating equipment have controls to allow a set point of 110 degrees F for equipment serving dwelling units and 90 degrees F for equipment serving other occupancies. The outlet temperature of lavatories in public facility rest rooms is limited to 110 degrees F.

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- [504.4] Heat traps.** Water-heating equipment not supplied with integral heat traps and serving non-circulating systems have heat traps on the supply and discharge piping associated with the equipment.

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- [504.5] Pipe insulation.** For automatic-circulating hot water and externally heated (such as heat trace or impedance heating) systems, piping is insulated in accordance with the specifications of this section.

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

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- [504.6] Hot water system controls.** Systems designed to maintain usage temperatures in hot water pipes is turned off automatically when the hot water system is not in operation and has demand sensing controls that turn of the system when there is no demand when the system is operational. A check valve or similar device is installed per requirement details.

*Exceptions:*

- Where public health standards require 24 hours per day operation of pumps for uses such as swimming pools, spas and hospitals*
- Service water heating systems used to provide multiple functions as part of an integrated system*
- Where coupled with water heating capacity less than 100 kBtu/hour*

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

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- [504.7.1] Pool/spa/hot tub heaters.** All heaters are equipped with a readily accessible on-off switch to allow shutting off the heater without adjusting the thermostat setting. Heaters fired by natural gas or LPG do not have continuously burning pilot lights.

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

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- [504.7.2] Times switches on pool/spas/hot tubs.** Time switches that can automatically turn off and on heaters and pumps according to a preset schedule are installed on tub heaters and pumps.

*Exceptions:*

- Where public health standards require 24-hour pump operation*
- Where pumps are required to operate solar-and waste-heat-recovery heating systems*

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

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- [504.7.3] Pool/spa/hot tub covers.** Heated pools, spas and hot tubs are equipped with a vapor retardant cover on or at the water surface. Pools, spas, and hot tubs heated to more than 90 degree F have a pool cover with a minimum insulation value of R-12.

*Exception:*

- Pools, spas, and hot tubs deriving more than 60 percent of the energy for heating from site-recovered energy or solar energy source*

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

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- [504.7.4 Heat recovery for pool/spa/hot tubs.** Heated indoor swimming pools, spas, or hot tubs with water surface area greater than 200 square feet provide for energy conservation by an exhaust air heat recovery system that heats ventilation air, pool water, or domestic hot water per requirement details.

*Exception:*

- Pools, spas, or hot tubs that include systems(s) that provide equivalent recovered energy on an annual basis through one of the following methods:*
  - *Heated by renewable energy*
  - *Dehumidification heat recovery*
  - *Waste heat recovery*
  - *A combination of these systems(s) sources meeting requirement details*

Location in plans/specs where compliance can be identified (enter NA if not applicable): \_\_\_\_\_

\_\_\_\_\_

#### **Generic requirements**

Must be met by all systems to which the requirement is applicable:

- All service water heating requirements are listed in requirements section specific to the system.

### **SECTION 4: COMPLIANCE STATEMENT**

**Compliance statement:** The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the Oregon Energy Efficiency Specialty Code requirements in *COMcheck* Version 3.8.0 and to comply with the mandatory requirements in the requirements checklist.

\_\_\_\_\_  
Name – Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Project notes:**

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