## (Effective until March 15, 2024)

## WAC 51-11C-40342 Section C403.4.2-Off-hour controls.

C403.4.2 Off-hour controls. For all occupancies other than Group R, each zone shall be provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.

EXCEPTIONS:

1. *Zones* that will be operated continuously. 2. *Zones* with a full HVAC load demand not exceeding 6,800 Btu/h (2 kW) and having a manual shutoff switch located with *ready* access

C403.4.2.1 Thermostatic setback. Thermostatic setback controls shall be configured to set back or temporarily operate the system to maintain zone temperatures down to  $55^{\circ}F$  (13°C) or up to  $85^{\circ}F$  (29°C).

C403.4.2.2 Automatic setback and shutdown. Automatic time clock or programmable controls shall be capable of starting and stopping the system for seven different daily schedules per week and retaining their programming and time setting during a loss of power for at least 10 hours. Additionally, the controls shall have a manual override that allows temporary operation of the system for up to 2 hours; a manually operated timer configured to operate the system for up to 2 hours; or an occupancy sensor.

C403.4.2.3 Automatic start and stop. Automatic start and stop controls shall be provided for each HVAC system. The automatic start controls shall be configured to automatically adjust the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy. The automatic stop controls shall be configured to reduce the HVAC system's heating temperature setpoint and increase the cooling temperature setpoint by at least 2°F (1.1°C) before scheduled unoccupied periods based upon the thermal lag and acceptable drift in space temperature that is within comfort limits. At a minimum, the controls shall be a function of the space temperature, occupied and unoccupied temperatures, and the amount of time prior to scheduled occupancy.

C403.4.2.4 Exhaust system off-hour controls. For all occupancies other than Group R, exhaust systems serving spaces within the conditioned envelope shall be controlled by either an automatic time clock, thermostatic controls or programmable control system to operate on the same schedule as the HVAC systems providing their make-up air.

EXCEPTIONS: 1. Exhaust systems requiring continuous operation. 2. Exhaust systems that are controlled by occupancy sensor control configured with automatic on and automatic shutoff within 15 minutes after occupants have left the space.

C403.4.2.5 Transfer and destratification fan system off-hour controls. For all occupancies other than Group R, transfer fan or mixing fan systems serving spaces within the conditioned envelope shall be controlled by either an automatic time clock, thermostatic controls or programmable control system to operate on the same schedule as the associated HVAC systems.

EXCEPTION: Transfer fan and destratification fan systems that are controlled by occupancy sensor control configured with manual on and automatic shutoff within 15 minutes after occupants have left the space.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40342, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40342, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters

19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40342, filed 2/1/13, effective 7/1/13.]

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EXCEPTIONS:

Zones that will be operated continuously.
Zones with a full HVAC load demand not exceeding 6,800 Btu/h (2 kW) and having a manual shutoff switch located with ready access.

C403.4.2.1 Thermostatic setback. Thermostatic setback controls shall be configured to set back or temporarily operate the system to maintain *zone* temperatures down to  $55^{\circ}F$  (13°C) or up to  $85^{\circ}F$  (29°C).

**C403.4.2.2** Automatic setback and shutdown. Automatic time clock or programmable controls shall be capable of starting and stopping the system for seven different daily schedules per week and retaining their programming and time setting during a loss of power for at least 10 hours. Additionally, the controls shall have a manual override that allows temporary operation of the system for up to 2 hours; a manually operated timer configured to operate the system for up to 2 hours; or an occupancy sensor.

**C403.4.2.3 Automatic start and stop.** Automatic start and stop controls shall be provided for each HVAC system. The automatic start controls shall be configured to automatically adjust the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy. Automatic stop controls shall be provided for each HVAC system with direct digital control of individual zones. The automatic stop controls shall be configured to reduce the HVAC system's heating temperature setpoint and increase the cooling temperature setpoint by at least 2°F (1.1°C) before scheduled unoccupied periods based upon the thermal lag and acceptable drift in space temperature that is within comfort limits.

**C403.4.2.4 Exhaust system off-hour controls.** For all occupancies other than Group R, exhaust systems serving spaces within the conditioned envelope shall be controlled by either an automatic time clock, thermostatic controls or programmable control system to operate on the same schedule as the HVAC systems providing their make-up air.

EXCEPTIONS: 1. Exhaust systems requiring continuous operation. 2. Exhaust systems that are controlled by occupancy sensor control configured with automatic on and automatic shutoff within 15 minutes after occupants have left the space.

**C403.4.2.5 Transfer and destratification fan system off-hour controls.** For all occupancies other than Group R, transfer fan or mixing fan systems serving spaces within the conditioned envelope shall be controlled by either an automatic time clock, thermostatic controls or programmable control system to operate on the same schedule as the associated HVAC systems.

EXCEPTION: Transfer fan and destratification fan systems that are controlled by occupancy sensor control configured with manual on and automatic shutoff within 15 minutes after occupants have left the space.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, §

51-11C-40342, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40342, filed 11/26/19, effec-tive 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-40342, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40342, filed 2/1/13, effective 7/1/13.]