

TO: Air Quality Board  
THROUGH: Bryce C. Bird, Executive Secretary  
FROM: Glade Sowards, Environmental Scientist  
DATE: August 5, 2020  
SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amend R307-230. NO<sub>x</sub> Emission Limits for Natural Gas-Fired Water Heaters.

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The Division of Air Quality (DAQ) staff are proposing an amendment to R307-230, NO<sub>x</sub> Emission Limits for Natural Gas-Fired Water Heaters, to maintain the efficacy of the rule and to assist affected parties in finding compliant water heater models.

During the 2017 General Session, the Utah State Legislature established NO<sub>x</sub> emissions limits for natural gas-fired water heaters as part of the State Construction and Fire Codes Act (Utah Code Title 15A-6-102). Water heaters that meet these emissions limits are commonly referred to as “ultra-low NO<sub>x</sub>” models, and certification of compliance is administered by the South Coast Air Quality Management District (SCAQMD) in California. On August 2, 2017, the Utah Air Quality Board incorporated these emissions limits by reference in R307-230, giving the rule an effective date of August 3, 2017.

During the 2020 General Session, the Legislature amended the State Construction and Fire Codes Act with House Bill 374 to establish an exemption to the ultra-low NO<sub>x</sub> emissions limits for certain water heaters with a heat input of less than or equal to 75,000 BTU per hour – a heat input range typical of residential water heaters. Specifically, the amendment allows a person to sell or install a natural gas-fired water heater with an emission rate greater than the limits established in 15A-6-102(2)(a) if there is not available for purchase in the United States a water heater that has a heat input of equal BTUs per hour as the unit being replaced that meets the ultra-low NO<sub>x</sub> emissions limits.

To ensure that the efficacy of the NO<sub>x</sub> emission limits established in 15A-6-102 is not undermined by this exemption and to assist sellers and installers of water heaters in determining whether ultra-low NO<sub>x</sub> models are available for a given BTU rating, DAQ staff are proposing to amend R307-230 to require written approval from the Division Director on a form provided by the Division. This form would request the heat input rating of the water heater being replaced, and DAQ staff would use this information to compare to the SCAQMD List of Certified Units to identify whether an ultra-low NO<sub>x</sub> model is available for a given heat rating. If a certified ultra-low NO<sub>x</sub> water heater is found to be unavailable for the BTU rating of the unit being replaced, the exemption would then be approved. The SCAQMD List of Certified Units is attached to this Board memo.

Recommendation: Staff recommends that the Board propose amended R307-230 for public comment.