

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER [EOD-24-008]

**Variance from Prohibitions on Use of Certain Hydrofluorocarbons in
Stationary Refrigeration, Stationary Air-Conditioning, and Other End-Uses
Requirements**

**nVent Electric
Other Air-conditioning Equipment**

WHEREAS, pursuant to California Health and Safety Code sections 39730, 39730.5, and 39734, the California Air Resources Board (CARB) has established prohibitions on the use of certain hydrofluorocarbons (HFCs) in stationary refrigeration, stationary air-conditioning, and other end uses, as described in California Code of Regulations, title 17, sections 95371 - 95379 (HFC Regulation);

WHEREAS, pursuant to California Health and Safety Code section 39734, CARB has established a list of prohibited substances, as set forth in the HFC Regulation;

WHEREAS, under California Code of Regulations, title 17, section 95734 subsection (c) a manufacturer may not use a substance with a global warming potential (GWP) of 750 or greater in Other Air-conditioning equipment as of January 1, 2025;

WHEREAS, California Code of Regulations, title 17, section 95378 allows an Applicant to submit a request for a variance from the requirements of sections 95374 and 95375;

WHEREAS, the Executive Officer may grant a variance if the Executive Officer determines that the Applicant has proven by clear and convincing evidence that the criteria for a variance specified in section 95378, subsection (b) has been met and that the Applicant has complied with all application requirements specified in section 95378, subsection (c);

WHEREAS, under section 95378, subsection (b)(1), the Executive Officer may grant a variance for impossibility if the Applicant cannot comply with the regulatory requirements, and the Applicant can demonstrate all of the following criteria: (1) A lower-risk substitute is not currently or potentially available; (2) An exemption will not increase the overall risk to human health or the environment; and (3) The Applicant has used best efforts to anticipate and address the impossibility and any potential noncompliance;

WHEREAS, on June 17, 2024, nVent Electric (nVent), a publicly limited company (PLC), applied for a variance from the requirements under section 95734 subsection (c) of the HFC Regulation for no more than 1,500 units of Other Air-conditioning equipment until January 1, 2027;

WHEREAS, on July 17, 2024, a delegee of the Executive Officer determined that the variance application was complete;

WHEREAS, a delegee of the Executive Officer posted nVent's variance application for public comment beginning August 16, 2024 and ending September 16, 2024, during which time public comment was invited, and three comments were received. Two comments were against granting of variances in general, and the third comment was in support of the nVent's variance application;

WHEREAS, nVent presented evidence that in 2023 nVent began designing industrial air-conditioners capable of using compliant refrigerant, R-513A, instead of non-compliant refrigerant R-134a and R-407C. nVent has encountered technological barriers to completing the transition due to lack of component availability attributed to the small size of nVent's supply chain and the current lack of availability of components compatible with compliant refrigerants;

WHEREAS, a delegee of the Executive Officer affirmed that nVent equipment models S06, S10, S16, Series 52, G28, G57, T62 and T70m herein collectively referred to as "nVent equipment" meets the definition of "Other Air-conditioning equipment" as described in section 95373 of the HFC Regulation, and is prohibited from containing refrigerants with a GWP of 750 or greater if manufactured after January 1, 2025 as described in Table 3 in section 95374, subsection (c) of the HFC Regulation;

WHEREAS, nVent will need to redesign nVent equipment to bring them into compliance with the HFC Regulation requirements, and the company presented evidence that it cannot complete the redesign, testing, manufacturing, and certification process for compliance before January 1, 2027;

WHEREAS, nVent stated that without a variance, nVent would experience extraordinary economic hardship due to the immediate cessation of deliveries in its California market;

WHEREAS, a delegee of the Executive Officer did not dispute nVent's assessment of the time nVent would need to bring the nVent equipment into compliance with the HFC Regulation Requirements and did not dispute nVent's quantification of economic losses if a variance was not granted;

WHEREAS, nVent proposed in its variance application to manufacture and sell no more than 1,500 Other Air-conditioning units using refrigerant with a GWP above the applicable prohibitions until January 1, 2027, and to reduce excess greenhouse gas (GHG) emissions that will result from the granting of this variance through the purchase of equivalent carbon emission offsets;

WHEREAS, nVent has demonstrated that in the absence of a variance they cannot comply with the HFC Regulation;

WHEREAS, nVent has demonstrated that a lower-risk substitute is not currently or potentially available due to a lack of component availability attributed to the small size of nVent's supply chain and the current lack of availability of components compatible with compliant refrigerants;

WHEREAS, nVent has demonstrated that an exemption will not increase the overall risk to human health or the environment because they will reduce excess GHG emissions that may result from the granting of this variance through the purchase of equivalent carbon emission offsets;

WHEREAS, nVent has demonstrated that it has used its best efforts to anticipate and address the impossibility and any potential noncompliance;

NOW, THEREFORE, I, Michael FitzGibbon, based on materials submitted by nVent and additional information and testimony received during the public comment period, find that:

1. nVent cannot meet the requirements of Table 3 in section 95374, subsection (c) of the HFC Regulation effective January 1, 2025, for its 1,500 Other Air-conditioning units for reasons beyond its control, including the lead time required to design, test, manufacture, and bring to market fully compliant equipment;
2. Requiring nVent to comply with the requirements of Table 3 in section 95374, subsection (c) of the HFC Regulation in 2025 and 2026 for its 1,500 Other Air-conditioning units would result in extraordinary economic hardship;
3. nVent will mitigate the nVent equipment noncompliance to the maximum extent feasible by agreeing to purchase a quantity of carbon offsets equal to 3,720 metric tons of carbon dioxide equivalent (MTCO₂e) for the variance period from a reputable offset provider.
4. nVent has submitted a compliance plan that can reasonably be implemented and will achieve compliance as expeditiously as possible, which is full compliance with the HFC Regulation requirements by January 1, 2027; and

5. Based on the entire record, nVent has proven by Clear and Convincing Evidence that it has met the criteria for issuance of a variance for the nVent equipment for 2025 through 2026 with the conditions specified below because: (a) A lower-risk substitute is not currently or potentially available; (b) An exemption will not increase the overall risk to human health or the environment; and (c) The Applicant has used best efforts to anticipate and address the impossibility and any potential noncompliance.

IT IS ORDERED AND RESOLVED that nVent is granted a variance until December 31, 2026 to manufacture and sell no more than 1,500 Other Air-conditioning units of the nVent equipment using refrigerant which do not otherwise comply with the HFC Regulation requirements for End-Use as described in California Code of Regulations, title 17, section 95734.

IT IS FURTHER ORDERED that this variance is granted subject to nVent's adherence with their plan to bring the nVent equipment into compliance by January 1, 2027. nVent shall maintain records substantiating their adherence with this compliance plan. Records of the compliance plan shall be made available to the Executive Officer, or their delegatee, upon request.

IT IS FURTHER ORDERED that nVent will mitigate excess GHG emissions that may result from the granting of this variance by purchasing carbon offsets equal to 3,720 MTCO₂e. nVent will complete this mitigation plan by January 31, 2025. nVent shall maintain records substantiating adherence with this mitigation plan. Records of the mitigation plan must be made available to the Executive Officer, or their delegatee, upon request.

IT IS FURTHER ORDERED that the final date that this variance from compliance will be allowed for the equipment covered by this variance is December 31, 2026.

Executed in Sacramento, California October 29, 2024.



Michael FitzGibbon, Chief
Atmospheric Science and Climate Strategies Branch
Research Division
CALIFORNIA AIR RESOURCES BOARD