

VENTILATION VERIFICATION FOR EDUCATIONAL FACILITIES

I. INTRODUCTORY INFORMATION

Ventilation Verification is a physical assessment of the existing Heating, Ventilation and Air Conditioning (HVAC) infrastructure. The Ventilation Verification Assessment establishes an HVAC system's baseline for adequate ventilation.

An initial Ventilation Verification Assessment shall be performed per the Ventilation Verification specification (Appendix A) and shall be supplemented by an ongoing maintenance schedule as outlined in ASHRAE 62.1 – 2019 Section 8 Operations and Maintenance and Table 8.1 Minimum Maintenance Activity and Frequency. Subsequent Ventilation Verification assessments shall be conducted if significant changes are made to the system(s), use and occupancy of rooms served has changed, or within a period not to exceed five years.

II. INFORMATION FOR THE FACILITY

Educational Facilities are responsible for the following:

- Engaging a contractor who employs skilled, trained, and certified technicians and providing them with **Appendix A and B** of this document to perform the initial site-specific Ventilation Verification assessment.
- Engaging a design professional and providing them with **Appendix A and B** of this document to review design ventilation rates, review the assessment report, and make recommendations for adjustments, repairs, or replacements, if required.
- Completing the recommended adjustments, repairs, or replacements utilizing a skilled and trained workforce, and qualified testing personnel as defined in **Appendix A**.
- Submitting the final HVAC Verification Report to the **U.S. Department of Education**, listing all remaining deficiencies, and a plan to correct the remaining deficiencies.
- Entering into an HVAC maintenance agreement in accordance with ASHRAE 62.1 – 2019 Section 8 Operations and Maintenance and Table 8.1 Minimum Maintenance Activity and Frequency with a vendor who utilizes a skilled and trained workforce, as defined in **Appendix A**, and provide the vendor with **Appendix A and B** of this document.

The assessment, adjustments, and repairs shall be performed by a skilled, trained, and certified technician as defined in **Appendix A**. Educational facilities must engage technicians with certifications from the Associated Air Balance Council (AABC), National Environmental Balancing Bureau (NEBB), or Testing, Adjusting, and Balancing Bureau (TABB). If there are no certified professionals in your local area, the nearest ones should be contacted to arrange for an on-site appointment as soon as possible. When the appointment is set, provide a copy of the work order to the **U.S. Department of Education**.

The following is a summary of the minimum ventilation verification requirements that apply to existing facilities:

(Minimum Requirements are detailed in Appendix A – Ventilation Verification Assessment)

- ✓ Filtration and Ventilation meets minimum adequate requirements and recommendations.

- ✓ HVAC components are functioning, and each unit is maintained to operate as designed.
- ✓ Verify air distribution and building pressure.
- ✓ HVAC operating schedule matches occupancy requirements.
- ✓ All zones shall be equipped with a functioning CO₂ monitor with required capabilities.
- ✓ Review of the Ventilation Verification Assessment by a Design Professional.
- ✓ Completion of Design Professionals recommended repairs and adjustments.
- ✓ Prepare and submit a final HVAC Verification Report to the **U.S. Department of Education** including:
 - Documentation of final conditions, remaining deficiencies, and a plan to address remaining deficiencies.
 - Identifying and providing documentation of any grandfathered and/or landmarked establishments that may hinder changes to the HVAC infrastructure.
- ✓ Establish a Preventative Maintenance List and Agreement with a vendor who utilizes a skilled and trained workforce, as defined in **Appendix A**.
 - Minimum Maintenance Requirements are detailed in Section III – Maintenance

Systems will be assessed to determine if they meet or exceed the current recommendations of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), along with any applicable local and state agency guidance. The resulting Ventilation Verification Assessment shall be reviewed by a design professional to evaluate deficiencies and recommend further adjustment, repairs, upgrades, and/or replacements based on reduced assumptions. Once adjustments are complete, a final Ventilation Verification Report shall be submitted to the **U.S. Department of Education**.

The **U.S. Department of Education** does not review the assessment or provide recommendations. The final HVAC Verification Report will clearly identify the design professionals' recommendations, any remaining deficiencies, and a plan to correct the remaining deficiencies. The **U.S. Department of Education** should be informed of the plans that the facility will be making and the proposed timeline, including copies of work orders. If the timeline will interfere with current and/or future operations, temporary mitigation as recommended by the design professionals must be put in place as soon as possible.

Completing any replacements or adjustments to the system — such as increasing ventilation and filtration or installing new equipment — without a physical assessment by a skilled, trained, and certified professional may result in wasted funding, additional energy increases, and premature equipment failure while providing no assurance that the recommended strategies will reduce pathogen transmission and improvements to the indoor air quality were achieved.

Physical verification — and thereby adjustment and/or replacement — of an HVAC system by a skilled, trained, and certified technician will ensure accurate ventilation rates, functioning filtration, and achievement of the desired outcome with money well spent to protect the health and safety of the students, staff, and other building occupants.

Attachments:

Appendix A –Specification Section

Appendix B –Methods of procedure and Technician Forms