



HVAC Ventilation Update

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Today's Presentation

- Initiatives implemented to date
- A review of all possible ventilation options listed in the StrongSchools NC Toolkit
- A review of all possible air filtration options listed in the StrongSchools NC Toolkit
- WCPSS decisions and actions

Initiatives Implemented

- Upgraded MERV-13 filters have been installed in HVAC systems district wide.
- HVAC systems are running for extended periods before and after the school day.
- Outdoor air louvers and dampers are being adjusted and cleaned as discovered with regular inspections and filter changes.
- Exhaust systems have been inspected and maintained for proper operation.

StrongSchoolsNC : Ventilation Improvement Steps

- Increase outdoor air ventilation, using caution in highly polluted areas.
- When weather conditions allow, increase fresh outdoor air by opening windows and doors. Do not open windows and doors if doing so poses a health or safety risk.
- Use fans to increase effectiveness of open windows.
- Ensure ventilation systems operate properly and provide acceptable indoor air quality for the occupancy level.

StrongSchoolsNC : Ventilation Improvement Steps

- Increase total airflow supply to occupied spaces where possible.
- Disable demand-controlled ventilation controls that reduce air supply based on occupancy or temperature during occupied hours.
- Further open minimum outdoor air dampers to reduce or eliminate HVAC air recirculation. (In mild weather, this will not affect thermal comfort or humidity. However, this may be difficult to do in cold, hot, or humid weather.)

StrongSchoolsNC : Central Filtration Improvement

- Increase air filtration as high as possible without significantly diminishing design airflow.
- Inspect filter housings and racks to ensure appropriate filter fit and check for ways to minimize filter bypass.
- Check filters to ensure they are within service life and appropriately installed.
Consider running the HVAC system at maximum outside airflow for 2 hours before and after the school is occupied.
- Ensure restroom exhaust fans are functional and operating at full capacity while the school is occupied.

StrongSchoolsNC : Central Filtration Improvement

- Inspect and maintain local exhaust ventilation in areas such as restrooms, kitchens, and cooking areas.
- Utilize portable high-efficiency particulate air filtration systems to enhance air cleaning, especially in high-risk areas.
- Generate clean-to-less clean air movement by re-evaluating supply and return air diffusers.
- Consider ultraviolet germicidal irradiation as a supplement to help inactivate SARS-CoV-2.

WCPSS Decisions and Actions

- Upgrade MERV-13 filters installed in HVAC systems districtwide to take advantage of operational efficiency and superior air circulation.
- Place portable HEPA filtration units in classrooms with smaller groups of special education students who are unable to wear face coverings.
- Run HVAC systems for extended periods before and after the school day to increase air flow.
- Adjust outdoor air louvers and dampers and clean as needed based upon regular inspections and filter changes.
- Regularly inspect exhaust systems and maintain for proper operation.

Questions?

