

DATE: February 1, 2022

TO: Board of Trustees

FROM: Darrel Robertson, Superintendent of Schools

SUBJECT: Provincial Funding for Stand-Alone HEPA Filters for Classrooms

ORIGINATOR: Kathy Muhlethaler, Assistant Superintendent

RESOURCE STAFF: Todd Burnstad, Terri Gosine, Christopher Wright

ISSUE

The Division has made a commitment to provide a number of enhancements to our ventilation systems. Earlier this month, the Division announced that we have done an extensive review of our current ventilation protocols and are exploring options for additional safety measures. The enhancements are part of a layered approach to safety protocols, which are used collectively to ensure all necessary steps are taken to keep students and staff safe. Board Delegation of Authority Policy CHA.BP requires Board approval regarding unanticipated expenditures that exceed \$1,200,000 that have not been accounted for in the current annual budget. Ministerial approval is required to access the Division's accumulated operating surplus funds.

BACKGROUND

Since the pandemic started, ventilation has been an important part of our 'layered' approach captured in the [Division's Back to School Plan](#). Elements of the Back to School Plan have, in part, included extensive cleaning protocols, hand hygiene, self-screening requirements, encouraging vaccination, the use of masks, and supplying Personal Protective Equipment (PPE) at each school. The plan has served our stakeholders well throughout the past two years. As an important part of that plan, our certified tradespeople have been diligent in monitoring and servicing our mechanical ventilation systems in all schools. We have been adhering to all the operational recommendations that the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have been noting throughout the pandemic:

- Extending the operational times of the ventilation system by two hours before and after normal scheduled operation. This allows for a two-hour building flush before and after staff and students are in the building.
- Ensuring ventilation systems are set to allow for maximum fresh air intake.
- Ensuring the most efficient filter possible is installed in each unique ventilation system.
- More frequent filter changes.

The Division continues to look at emerging evidence and information available so we can adjust and enhance our safety measures.

RELATED FACTS

ASHRAE has provided guidance documents that outline a series of recommendations in order to inform operations of mechanical heating and ventilation systems. ASHRAE recommendations and guidance are

not the same as local building code or a Provincial directive outlining minimum standards for ventilation and filtration in schools, as requested by the Board of Trustees recently.

Core recommendations, and a subsequent series of guidance documents, have been regularly issued and updated by ASHRAE from August, 2020 through to the most recent document from October 19, 2021: [ASHRAE Epidemic Task Force: Core Recommendations for Reducing Airborne Infectious Aerosol Exposure](#).

ASHRAE's initial [Guidance for the Re-Opening of Schools](#) was issued in August 2020, and is intended to provide '...practical information and checklists to school district and university campus environmental health managers, facility managers, administrators, technicians, and service providers to prepare educational buildings to resume occupancy.' The most recent information linked to the document is dated October 19, 2021 and relates to the final report of the Epidemic Task Force and appears to confirm a shift towards the concept of 'aerosol exposure'.

Recently, Administration met with engineers and industry experts to understand what can be done to further improve ventilation. Based on updated recommendations from ASHRAE captured in the findings of the Epidemic Task Force, the Division is recommending further enhancements to our systems to improve ventilation, which include:

- adapting existing ventilation systems to suit Minimum Efficiency Reporting Value (MERV) 13 filters where possible, and
- provide stand-alone HEPA air cleaners to Division learning and ancillary spaces, including: all classrooms, music rooms, libraries, as well as art and drama rooms in all Division schools.
- Schools will also receive a specific number of 'additional' HEPA units to place in other areas, based on school needs.

The recommended approach expands on possible efforts to enhance ventilation that have been discussed to date. The combination of MERV-13 filters, where possible, and stand-alone HEPA air cleaners align with the findings of the ASHRAE Epidemic Task Force, as noted above.

RECOMMENDATION

1. **That the Board of Trustees, in accordance with Board Delegation of Authority Policy CHA.BP (section 3), authorize the expenditure of up to \$6,000,000 being a new unanticipated expenditure not accounted for in the current budget that exceeds \$1,200,000, to support the Division's purchase of stand-alone HEPA air filtration units.**
2. **That the Board of Trustees directs Administration to prepare and submit the required documentation to the Minister of Education seeking approval to access up to \$6,000,000 of the Division's accumulated operating surplus funds in order to support the purchase of stand-alone HEPA air filtration units.**

CONSIDERATIONS and ANALYSIS

MERV-13 filters for all systems have been ordered. While lead times and availability of filters remain a challenge, trade professionals from the Division's Integrated Infrastructure Services are installing filters, wherever possible, as soon as they are received. The potential for lag times between MERV-13 filter installations exists in the coming weeks. Possible gaps in timing, together with an evolving body of information related to ventilation, resulted in the expanded approach being proposed.

When creating the Request for Proposal for the stand-alone HEPA filters, Division standards considered the teaching environment. As such, approved units will run quietly in an effort to not interfere with instruction. Currently, vendors indicate that delivery times for approved HEPA units ranges from two to four weeks.

NEXT STEPS

Upon approval of the recommendation noted above and approval from the Minister of Education to access surplus operational funds, Administration will purchase air purification stand-alone units for all Division schools.

CW:kk