

Mr. Rasmus called the September 16, 2021 MASD Buildings and Grounds Meeting to order at 6:00 p.m.

Present were Joseph Rasmus, William Berger, Sue Farr, Heather Mausteller, Brent Crispell, Whitney Holloway, and Kathy Musselman. Guest via Zoom, Robin Andrews.

GUEST RECOGNITION AND COMMENTS

Guest did not request to speak.

MCCLURE PRESENTATION: DON MARANGONI

Mr. Marangoni reviewed the bi-polar ionization system installed at Millville Area School District. Mr. Marangoni explained bi-polar ionization technology creates positive and negative ionic bonding of molecules that bond with pathogens, viruses, bacteria, molds, and other particles, neutralizing them, making the harmful pathogens incapable of spreading. This happens through agglomeration. Agglomeration clumps together tiny molecules to form larger molecules due to ionic bonding. When agglomeration is enhanced, the effective efficiency of the filters increase because larger particles are easier to remove, improving indoor air quality, killing bacteria and eliminating odors.

Mr. Rasmus asked about opening windows. Mr. Marangoni did not recommend open windows. Open windows create a change in humidity, hotspots and cool spots, and outside environmental factors.

Filters will be changed twice a year at both the elementary and high school buildings. Mr. Crispell mentioned fair week coming up would be an opportunity to change out filters.

Mr. Crispell mentioned he was displeased with the service of the Williamsport McClure office. Mr. Crispell reached out to Ms. Wingenfield, at the Harrisburg office. Ms. Wingenfield followed-up with the Williamsport office and we were provided a \$5,000 credit.

The bi-polar ionization system review and test results specific to Millville Area School District are attached at the end of the meeting minutes for public review.

JR/SR HIGH SCHOOL AUDITORIUM/MUSIC-BAND ROOM RENOVATION PROJECT

In August, Mr. Rasmus received a phone call from Lance Diehl. Lance stated a large volume of water was coming out of the high school building. Mr. Rasmus and Mr. Crispell contacted Wayne Monroe and others from the maintenance/custodial department. A water line had burst and Wayne was able to close the water valve to keep more water from entering the building. 1"-1 ½" of water caused damage to the auditorium stage front fascia and carpeting, tile in the hallways, and music classroom, rehearsal and storage areas. Six guitars and cases, 2 sousaphones and cases, and sheet music were also destroyed.

Repairs and replacements are through Yoder Insurance. Replacement of the VCT tile was approved through insurance but carpet replacement in the auditorium was an issue since the entire area did not have water damage. Mr. Rasmus has been working with the insurance company to resolve the carpet issue because even though the entire carpeted surface was not damaged, mold is still a factor.

Mr. Crispell suggested the three-step area of the music room be repaired at the same time, eliminating the need to make repairs in the future and matching and availability of materials.

COVID-19 CLEANING AND SANITIZING PROTOCOLS

COVID numbers are not where we want to be with 25% of our buildings being impacted within the first fourteen days of school.

Starting this Sunday, the buildings will be closed to resume Sunday sanitizing.

MILLVILLE AREA SCHOOL DISTRICT

Buildings and Grounds Committee Meeting Minutes

September 16, 2021

An increase in custodial staff is needed. Consider using ESSERS funds to hire a custodian, being cognizant of the impact of ESSERS funds ending. Custodial staff posting will be placed on the district website.

Sanitizing wipes will be available in the classrooms for student desk sanitizing between classes.

The Health Suites will be sanitized daily.

Room sanitizing protocols are enacted when student is identified for quarantine/isolation.

SCIENCE WING ROOF RESTORATION PROJECT

The roof of the science wing is peeling and will need to be scarify.

Tremco is scheduled to visit tomorrow to complete an assessment for the restoration project.

Timelines: Project quotes are expected by next month. Tremco will award the project in December or January. Project expected to start and complete during the summer of 2022.

Mr. Crispell will provide pictures of the roof.

WEATHER DAMAGE PHYSICAL PLANTS: SECONDARY/ELEMENTARY

The elementary cafeteria roof is two years old and leaking around the roof unit. The high school roof has "ghost" leaks that are hard to find. Tremco will be visiting the week of September 20th to address the issue.

GORDIAN STRATEGIC CAPITAL PLANNING

The committee was provided information from Gordian Strategic Capital Planning to provide a districtwide assessment. After discussion, it was decided not to pursue this at the current time.

GREENHOUSE: AGRICULTURE LAB

Mr. Rasmus inquired if the committee would be interested in him reaching out to a community member with the possibility of purchasing or the donation of a greenhouse usable for the Agriculture Lab.

HIGH SCHOOL ENTRANCE WAY

Mr. Rasmus approached the committee with a want and not a need of Ms. Differ. Ms. Differ would like to have a sign designating the entrance of the high school building. It was suggested to contact CMVT with the possibility of a student project.

ADJOURNMENT

The meeting adjourned at 7:55 p.m.

Kathy Musselman
Assistant Board Secretary

Review of NPBI Installation for Millville Area SD

Background

In response to the COVID-19 pandemic, and in an effort to improve indoor air quality, Millville Area School District partnered with McClure Company to install needlepoint bipolar ionization (NPBI) devices on existing equipment. Benefits of ion production include, agglomeration of particles, inactivation of viruses, killing bacteria, odor reduction and potential future energy savings.

Devices were installed at the High School and Elementary School. Representative pre/post installation ion readings are presented below for each building, with additional measurements taken after a filter change for HVAC equipment at each school.

Results

Millville Area High School

Pre-activation and post-activation readings were taken for the High school over the course of one day (7/23/21). During the post-activation measurements, particulate measurements were higher than expected. An inspection of the filters concluded that a filter change was overdue from April 2021. Following discussions to have the filters for all HVAC equipment replaced, an additional set of particulate and ion readings were taken.

The three sets of results are presented for the high school on the following pages.

Millville Area Elementary School

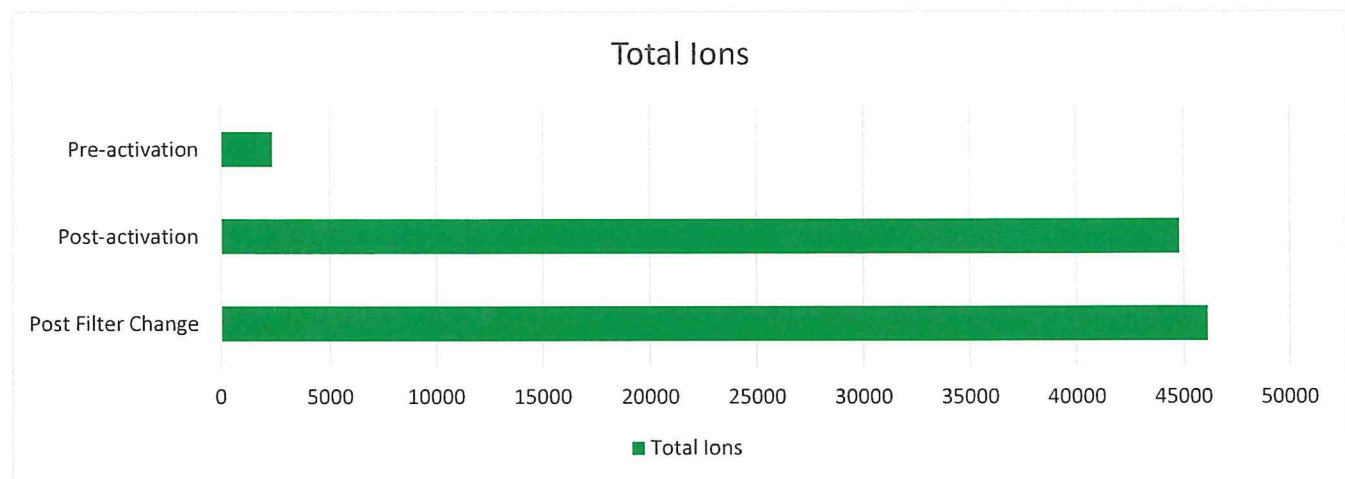
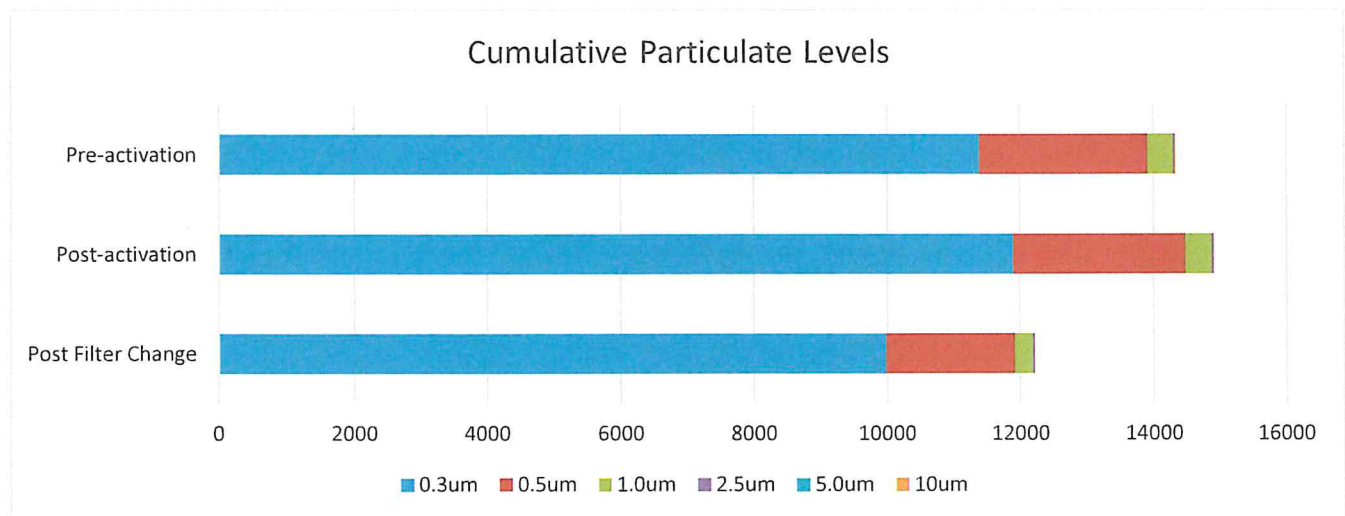
Pre-activation and post-activation readings were taken for the Elementary school over the course of one day (8/6/21). During the post-activation measurements, particulate measurements were higher than expected. An inspection of the filters concluded that a filter change was overdue from April 2021. Following discussions to have the filters for all HVAC equipment replaced, an additional set of particulate and ion readings were taken.

The three sets of results are presented for the elementary school following the high school presentation.

Millville Area High School

HS Room 213

This room is served by a unit ventilator. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 7/23/21) and an additional reading following filter replacement, taken on 8/24.

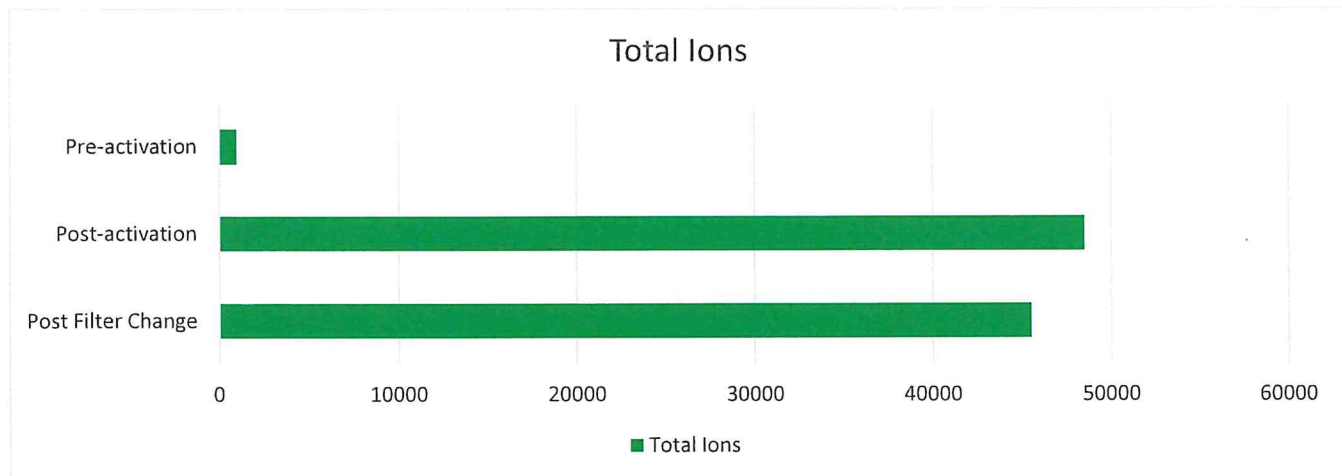
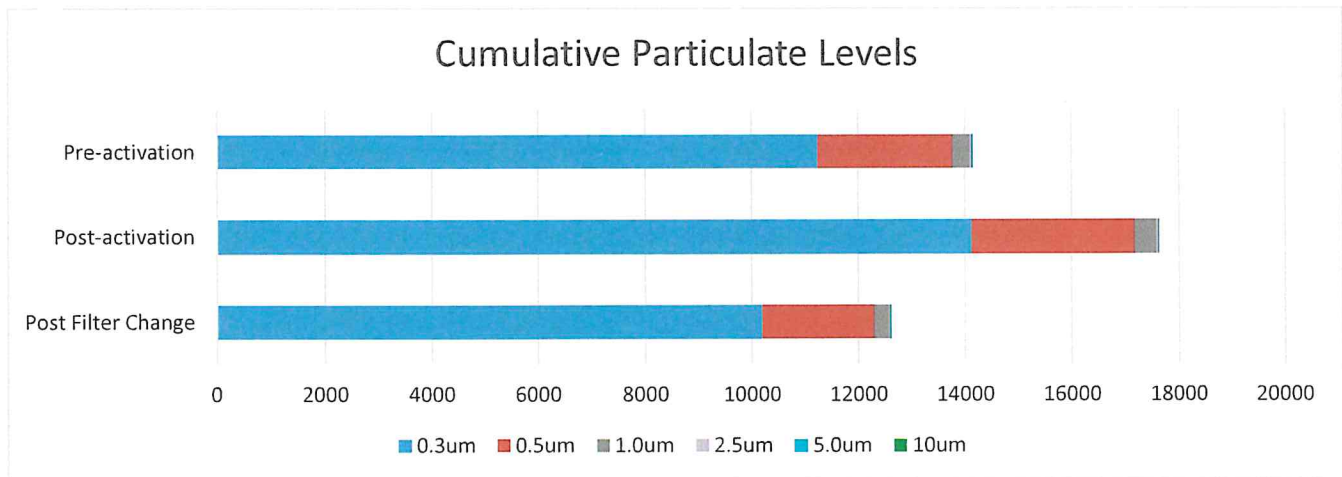


It should be noted that particulate and ion levels can vary based on activity in the space and residual outdoor particulate levels. The levels for both ion and particulate levels following filter replacement indicate improvement in indoor air quality (IAQ).

Millville Area High School

HS Room 215

This room is served by a unit ventilator. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 7/23/21) and an additional reading following filter replacement, taken on 8/24.

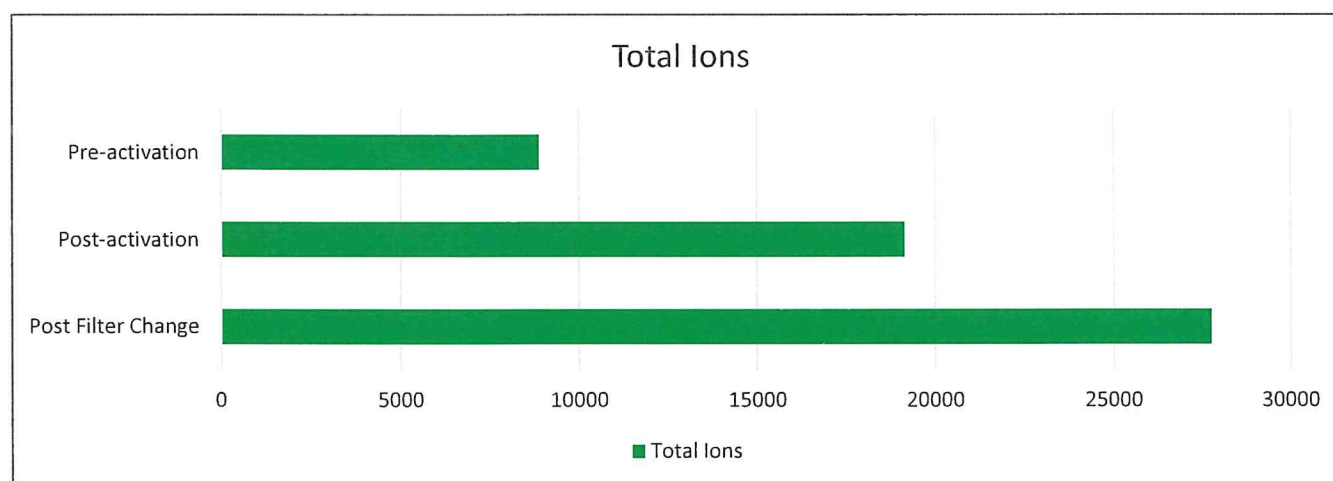
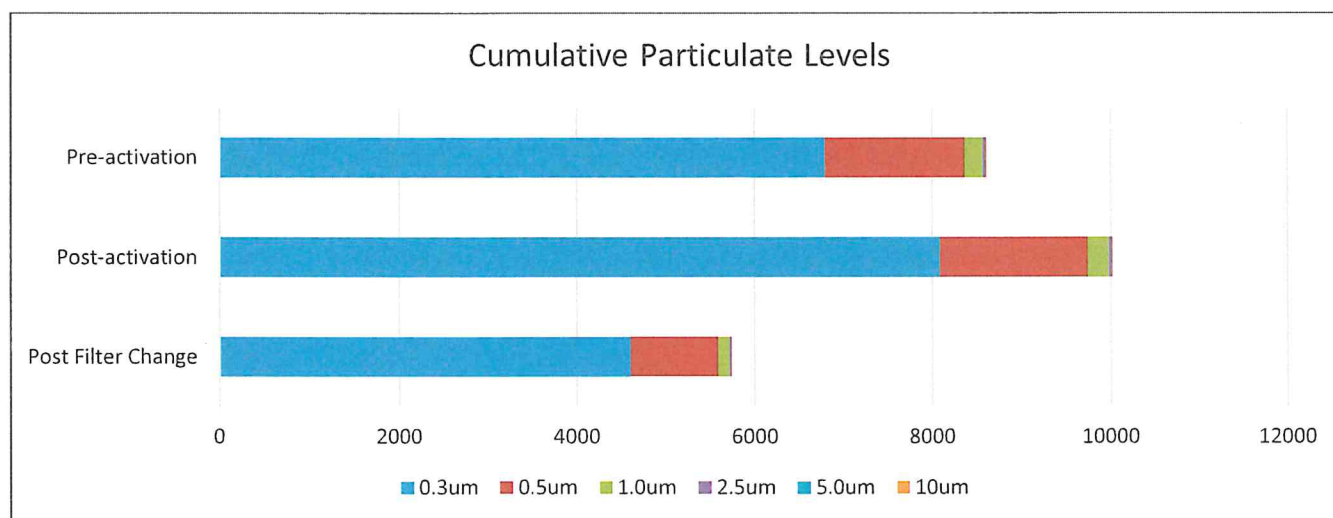


It should be noted that particulate and ion levels can vary based on activity in the space and residual outdoor particulate levels. The levels for both ion and particulate levels following filter replacement indicate improvement in IAQ.

Millville Area High School

HS Library

This room is served by a packaged RTU. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 7/23/21) and an additional reading following filter replacement, taken on 8/24.

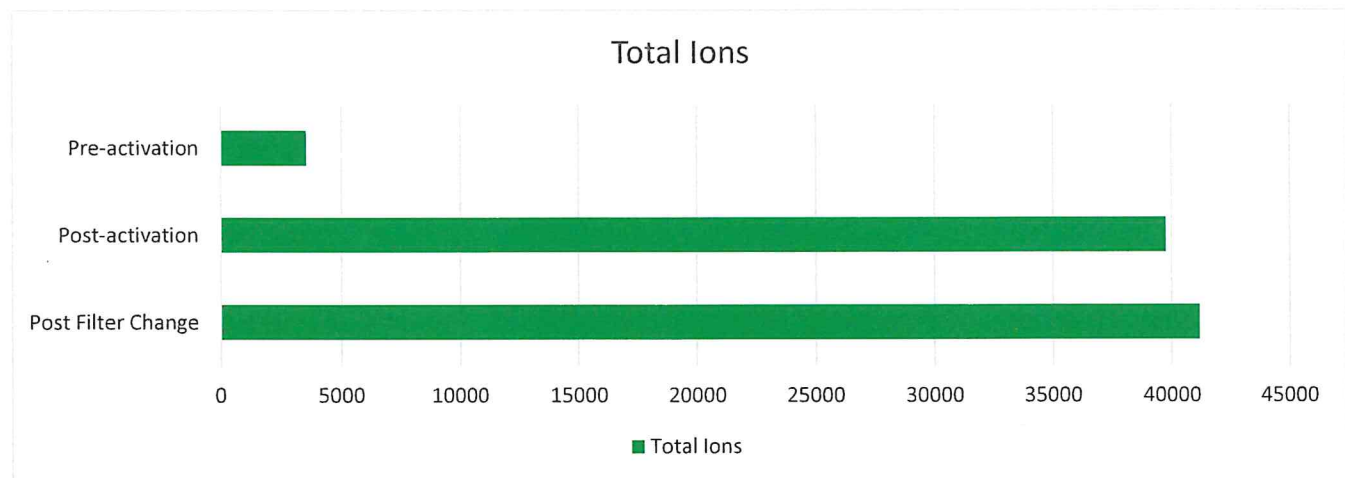
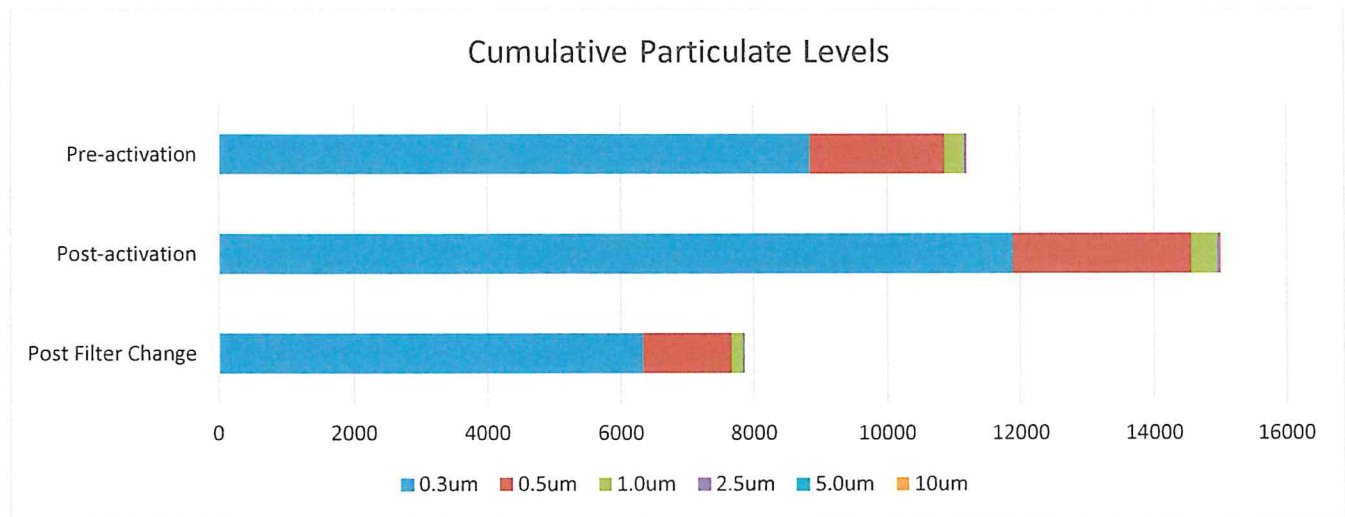


It should be noted that particulate and ion levels can vary based on activity in the space and residual outdoor particulate levels. The levels for both ion and particulate levels following filter replacement indicate improvement in IAQ.

Millville Area Elementary School

ES Room 36

This room is served by an Airedale TVUV. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 8/6/21) and an additional reading following filter replacement, taken on 8/24.

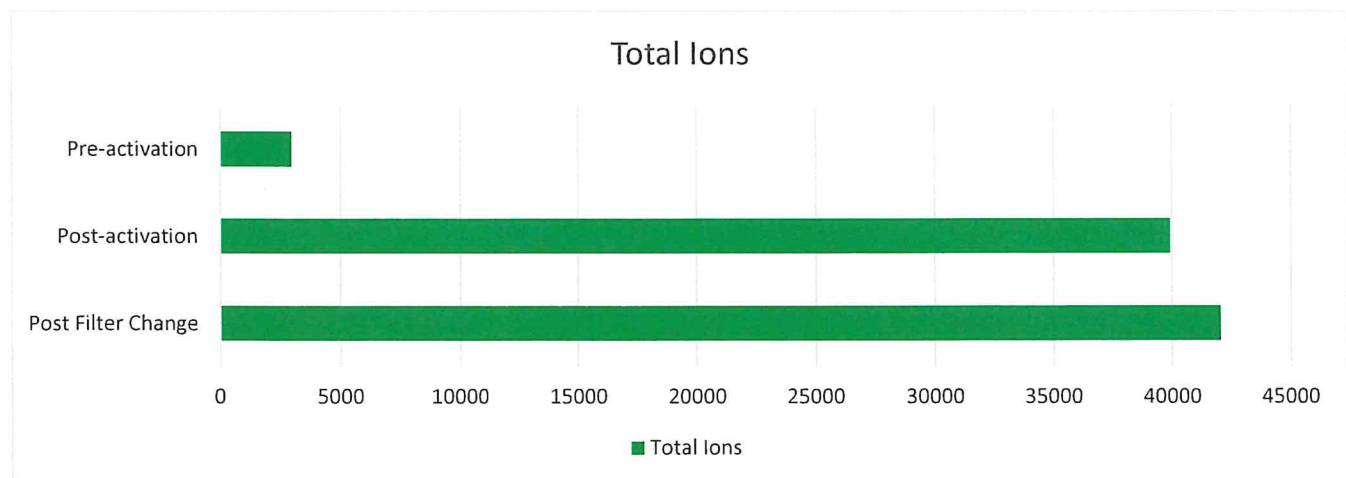
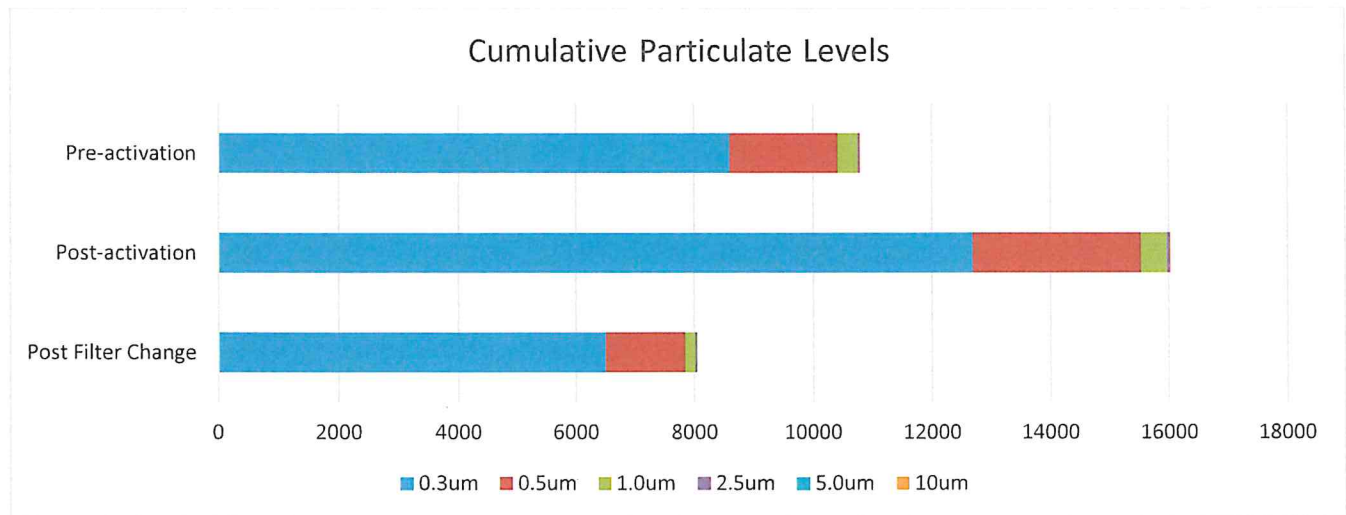


It should be noted that particulate and ion levels can vary based on activity in the space and residual outdoor particulate levels. The levels for both ion and particulate levels following filter replacement indicate improvement in IAQ.

Millville Area Elementary School

ES Room 39

This room is served by an Airedale TVUV. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 8/6/21) and an additional reading following filter replacement, taken on 8/24.

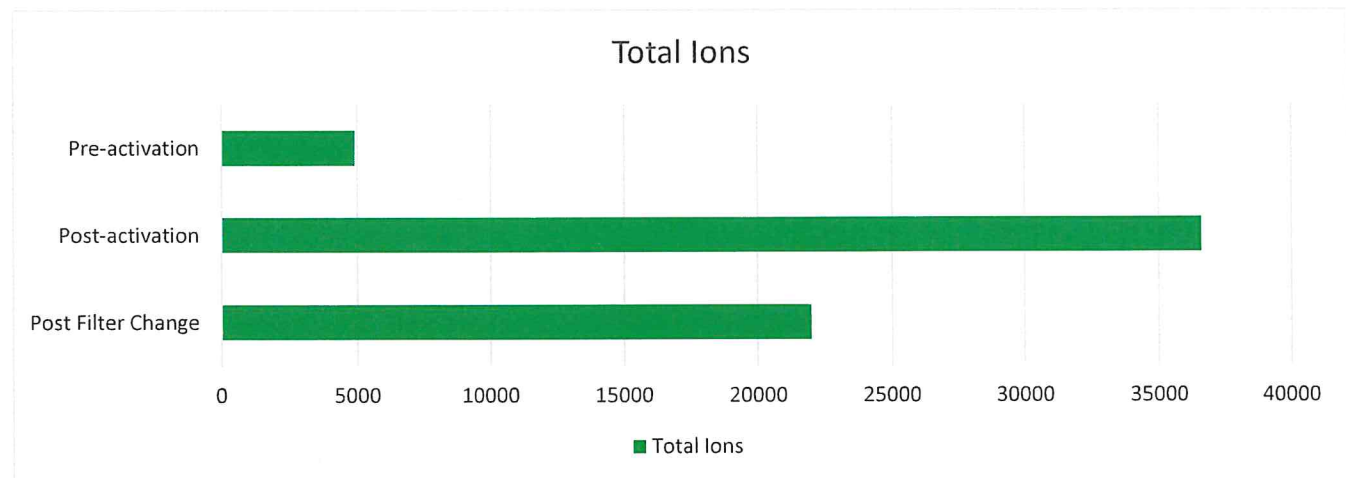
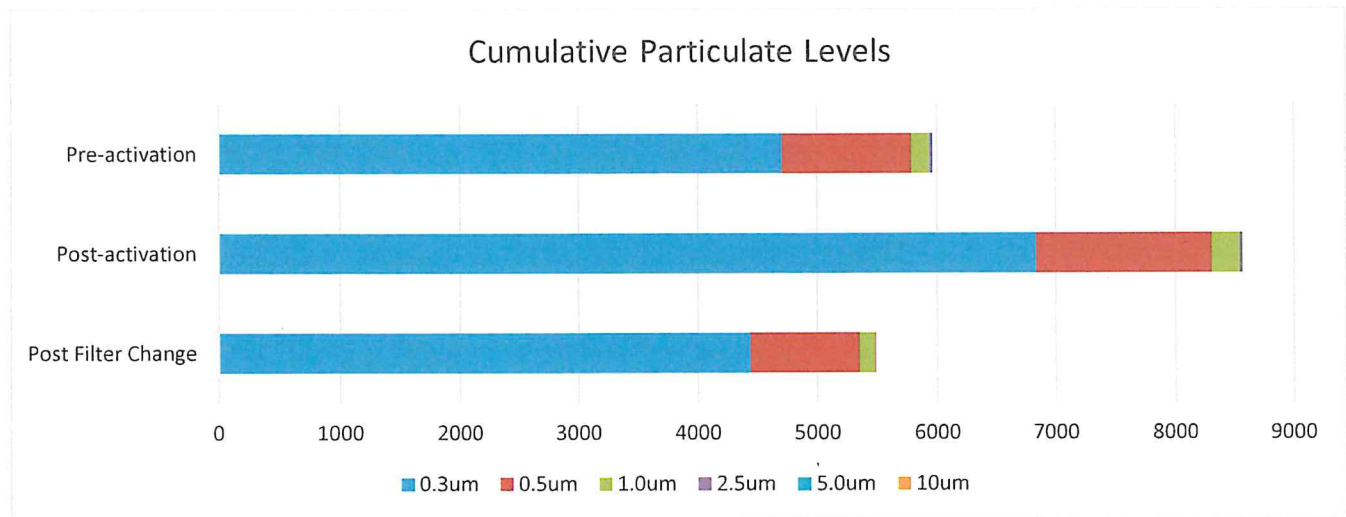


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Millville Area Elementary School

ES Library

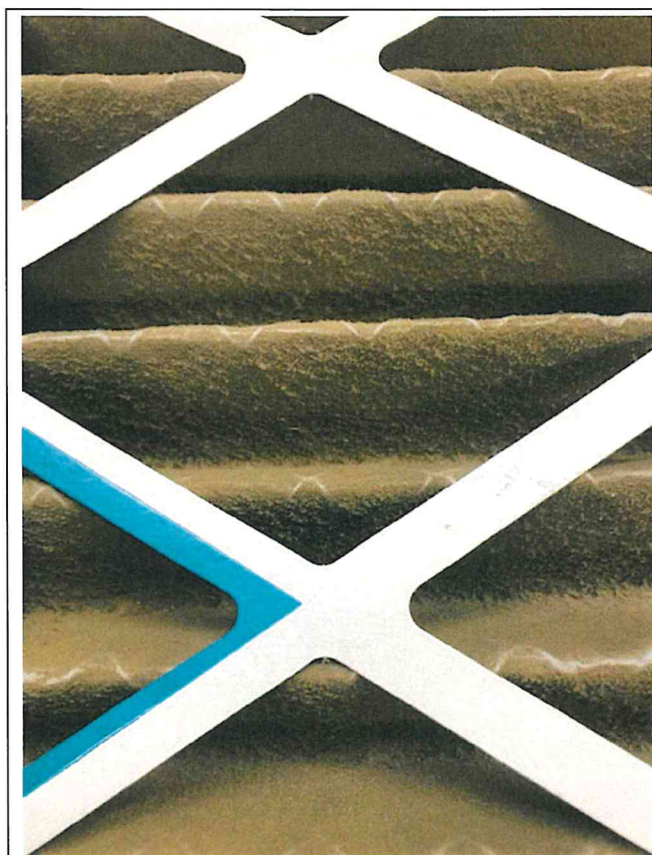
This room is served by a packaged RTU. Results are presented for the pre-activation of the NPBI device, post-activation (both taken on 8/6/21) and an additional reading following filter replacement, taken on 8/24.



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Filter Replacement

The photographs included below indicate the filter conditions noted on site – post-activation of NPBI (where filter replacement was indicated through the elevated particulate levels) and post-filter change (to validate the installation of new filters for HVAC equipment).



Filter photo taken on 8/6/2021 at Millville ES – Room 39 Airedale TVUV. The date on the filter indicated installation on 11/27/2020.



Filter photo taken on 8/24/21 at Millville ES – Room 39 Airedale TVUV.

NPBI Installation Report Summary

High School

Recorded ion levels were elevated immediately after activation of the NPBI devices. Particulate measurements indicated that a holistic HVAC filter replacement was required. Following the replacement of filters, particulate measurements showed a reduction as anticipated.

Elementary School

Recorded ion levels were elevated immediately after activation of the NPBI devices. Particulate measurements indicated that a holistic HVAC filter replacement was required. Following the replacement of filters, particulate measurements showed a reduction as anticipated.

In summary, the installation of NPBI devices at Millville Area School District should be considered an important enhancement of IAQ. Given that one of the beneficial effects of secondary air purification through particulate agglomeration is an increase in particulate trapped in HVAC equipment filters, the district is strongly advised to increase the frequency of filter replacements to ensure optimal benefits are noted for indoor particulate levels when using NPBI. The current six-month interval should be revisited and possibly increased to three filter changes per year or to match the interval recommended by the filter manufacturer.

To maintain the effectiveness of the installed devices, the following recommendations should be followed:

- Maintain a regular filter replacement interval, in accordance with filter manufacturer recommendations and increase filter MERV rating where possible.
- Ensure that HVAC equipment is well maintained.
- Perform annual cleaning of the NPBI device in accordance with manufacturer's guidelines.