

Board of Education Human Resources Meeting 10:00  
October 6, 2022  
Susan Pcola-Davis  
Testimony

#### Agenda Action Items

B. Committee Action on the superintendent evaluation system process and Superintendent Priorities for the 2022-2023 school year

#### APPROVE WITH RECOMMENDATIONS:

The truncated superintendent evaluation system and the Superintendent Priorities for the 2022-2023 school year.

The Board conducting only an end-of-year evaluation limited to Superintendent Priorities, removing the evaluation of professional standards and strategic plan indicators contained in the current evaluation system. This simplifies the evaluation process by removing more than half what the Board usually reviews and removes the mid-year review.

#### RECOMMENDATIONS

Superintendent Priority 3: Actively and intentionally engage in professional growth.

**Add**: Attend Professional training on Systems Design and Continual (not continuous) Process Improvement in order to access his Deputy superintendents, Assistant superintendents and his department's strengths and weaknesses in data analysis.

#### **Revision recommendations for Priority 4 Indicators:**

Superintendent Priority 4: Begin building positive and productive relationships with parents, families, and the general public.

Indicator 4.2 The superintendent establishes an efficient and responsive system to intake and address complaints from families and the public received at the state office level, **Complex level and school level** that provides timely and respectful responses to complainants and tracks complaints from initiation to resolution.

Indicator 4.3 The superintendent **develops** establishes an efficient and responsive system for complex area superintendents, principals and schools on how to resolve conflicts with parents and guardians.

TIMING: The Board is still planning on reviewing and improving its superintendent evaluation system to use on a longer-term basis. By when?

□C. Committee Action on authorizing consultation with unions regarding the updates to the Department of Education's ("Department") annual plan of organization, updated as of June 30, 2022

## COMMENTS/CONCERNS

### 4. OFFICE OF FACILITIES AND OPERATIONS

It is necessary for the DOE to ensure school classrooms are adequately ventilated, and that air purification is employed where adequate ventilation is not possible.

#### Why Consider CO2 Control

##### **1. Student Health Considerations**

CO2 monitoring can ensure that acceptable levels of ventilation for the health and welfare of students and teachers is maintained at all times.

- Lack of Ventilation Can Contributing to Absenteeism & Poor Student Performance

There are now numerous scientific studies that document that the lack of proper ventilation can impair performance and can increase the effective spread of viruses that can lead to **increase absentee rates that may directly affect school operational funding**. These studies also show that **student performance can also suffer if ventilation is neglected**.

The value of CO2 measurements is that you can constantly monitor and control ventilation levels to ensure student health and productivity.

1.a. CO2 is about the only parameter that can actually measure the amount of fresh air that is being delivered to a space based on its occupancy. As a result it is increasingly being used as a feedback control to ensure buildings are ventilated appropriately for their current occupancy.

##### **1.b. What does too much CO2 does to the human body?**

- The primary symptoms observed due to too much increase in carbon dioxide levels in the body are extreme difficulty breathing, sudden periods of mental confusion, feeling of depression, muscle twitching, arrhythmias, hyperventilation, seizures, panic attacks, and syncopal episodes.

##### **1.c. Why is too much carbon dioxide a bad thing?**

- If your blood becomes saturated with too much CO2, you develop the condition known as hypercapnia. Increased levels of CO2 also affect the pH level of your blood, turning it more acidic. This condition is called acidemia and, if prolonged, causes acidosis, which is injury to the body's cells by a rise in acidity that leads to faltering functions of the heart.

##### **1.d. Is breathing too much carbon dioxide bad for you?**

- In high concentrations, oxygen in the air can be displaced. When there is insufficient oxygen to breathe, symptoms such as fast breathing, high heart rate, clumsiness, emotional upheavals, and exhaustion might occur. As oxygen levels drop, nausea and vomiting, collapse, convulsions, coma, and death may ensue. Carbon dioxide is a normal by-product of cellular respiration and plays an important role in energy production within cells. Too much carbon dioxide in the blood is toxic to tissues; when inhaled, it can cause serious health problems.
- Excessive amounts of carbon dioxide can be harmful to humans. At high concentrations, it is able to displace oxygen in the blood, causing organs such as the brain and lungs to receive less

oxygen than they need. These effects are likely to lead to dizziness, headache, fatigue, confusion, loss of consciousness, and possibly death. The human body can only handle a certain concentration of carbon dioxide before it becomes incapacitated.

**1.e. What are the symptoms of carbon dioxide toxicity?**

- Symptoms
  - Dull headache.
  - Weakness.
  - Dizziness.
  - Nausea or vomiting.
  - Shortness of breath.
  - Confusion.
  - Blurred vision.
  - Loss of consciousness.

On August 24, 2022 a letter was sent to the Complex Area Superintendents and Principals regarding Guidance on Minimum Air Purifier Specifications. I am unable to find this letter on the DOE website. The Office of Facility Operations is working on a price list for air purifiers and filters that schools can utilize.

An attached document provides additional information to guide schools on how to “calculate” air changes per hour based on the clean air delivery rate of the unit you are looking to purchase. It provides some guidance based on the size of your room, to purchase the correct size.

These are screen shots of what was sent to the Complex Area Superintendents and Principals. Pretend you are a CAS or principal, answer for yourselves if this would help you order and purchase air purifiers AND filters. Ask yourself if this document provides any guidance on purchasing MERV filters for the CR Box fans already placed in classrooms.

Would you feel unsupported? Helpless? Frustrated?




**STATE OF HAWAII**  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF FACILITIES AND OPERATIONS

August 24, 2022

TO: Complex Area Superintendents  
Principals (All)

FROM: Randall M. Tanaka   
Assistant Superintendent

SUBJECT: **Guidance on Minimum Air Purifier Specifications**

The Office of Facilities and Operations (OFO) is currently working on a price list for air purifiers and filters that schools can utilize. Should schools wish to procure air purifiers prior to the completion of the price list, the OFO is providing guidance on the minimum specifications for air purifiers.

The attached document should be used to assist schools with decision making on purchasing high density air filters. To better assist schools with finding an air purifier (or the quantity of air purifiers) for the right size of their classroom, this document also provides additional information on how to calculate air changes per hour (ACH) based on the clean air delivery rate (CADR) of the unit you're looking to purchase.

Should you have any questions, please contact Gary Bignami, Facilities Planner II in the Office of Facilities and Operations Environmental Services Unit at (808) 784-5060 or at [gary.bignami@k12.hi.us](mailto:gary.bignami@k12.hi.us).

RMT:cs  
Attachment

c: Superintendent  
Deputy Superintendent  
Office of Facilities and Operations  
Environmental Services Unit

**Office of Facilities and Operations  
Guidance on Minimum Air Purifier Specifications**

This document is to assist schools with decision making on purchasing high density filters like High Efficiency Particulate Air (HEPA) Air Purifiers to assist with risk reduction strategies related to COVID-19 and other indoor air quality issues.

**What should schools/offices look for when purchasing HEPA air purifiers?**

Schools should look for the following specifications when purchasing an air purifier:

1. The unit's Clean Air Delivery Rate (CADR) for dust should be a minimum of 275 cubic feet per minute ( $\geq 275$  cfm) on high fan speed.
2. Noise on high fan speed setting should be below 60 decibels ( $< 60$  dB).
3. OFO does not recommend purchasing units with add-ons such as ionizers, photocatalytic oxidation, and plasma. Ultraviolet disinfection is optional and ok to purchase as an inclusion with the air purifier.
4. The unit's filters should have a HEPA filter with a rating of H12 or better; H13 or better is preferred.
5. The unit should be ozone-free or have zero ozone emissions. The unit should have the environmental claim validation number UL2998 or provide equivalent compliance. For additional information on this specification, please visit the link [here](#).
6. It is preferred (but not required) for the unit to have Association of Home Appliance Manufacturers (AHAM) certification and EnergyStar certification.

**How do I know what CADR is appropriate for my size classroom?**

The target Air Changes per Hour (ACH) is 5 ACH. A CADR of 275 provides approximately 2 ACH in an 8-9000 cubic foot room. This is in addition to the expected ACH levels already existing in your classroom through natural ventilation (1-3 ACH), as well as ACH from HVAC systems (1.5 - 3 ACH).

ACH can be calculated in the following way:

$[\text{CADR (cfm)} \times 60 \text{ (min/hr)}] / \text{Room volume (cu ft)}$

For more specific calculations, please see the Harvard & CU-Boulder tool to estimate air exchange by air purifiers: <https://bit.ly/air-purifier-calculator> (Excel)

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**General Reminders:**

1. Where should you place your air purifier?
  - a. Place the air purifier away from walls toward where occupants sit.
  - b. Avoid placing units in unused corners of rooms, beneath tables, or near objects which obstruct air flow.
  - c. Air purifiers can be used in conjunction with opening windows, but should be located away from the windows, so they aren't cleaning already clean outside air
2. How long should the air purifier run?
  - a. Operate our air purifier for the entire time a room is occupied plus 1-2 hours afterward if feasible.
  - b. Increasing the amount of time an air purifier runs at higher fan speeds increases the air filtration.
  - c. Air purifiers do not instantaneously clean the air, so they should be continuously run even during intermittent occupancy.
3. When should I replace my filter in the air purifier?
  - a. Filters should be changed according to manufacturer recommendations.



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## **TESTIMONY TO THE BOARD OF EDUCATION HUMAN RESOURCES COMMITTEE MEETING**

**RE: VI. A. DISCUSSION ITEM PRESENTATION ON DEPARTMENT'S PLAN TO  
ADDRESS TEACHER SALARY EQUITY AND COMPRESSION**

**THURSDAY, OCTOBER 6, 2022**

**OSA TUI, JR., PRESIDENT - HAWAII STATE TEACHERS ASSOCIATION**

Chair Barcarse and members of the committee,

It is with a collective sigh of relief and appreciation that we've reached this point along a journey that began nearly three years ago. It started with [a plan to conduct an experimental modernization project](#). Since that [plan was unveiled](#), we've been through a global pandemic, a crashed economy, a resurgent boom in tourism and state revenue collections, and a truly historic setting aside of funding by the legislature and governor this past legislative session. These dedicated funds will address salary equity and compression for Hawaii's public school educators and could not have happened without the efforts of many from the Board of Education, the Department of Education, the Public Charter School Commission, the State House and Senate, the governor's office, and our public school educators and allies. The implementation plan being discussed today will ultimately benefit Hawaii's keiki who will not be losing seasoned educators in a time of unprecedented teacher shortages throughout our country.

While this plan will address salary compression for nearly 9,200 current Hawaii public school educators, HSTA asks that in upcoming collective bargaining negotiations, special consideration is given to the over 400 educators currently at the top of the pay scale who continue to remain in our ranks, but will not benefit from any salary increases because they are already at the top of the pay scale.

These salary corrections will be life-changing for so many. [HSTA held a virtual "Unretirement" party](#) at the start of the school year to highlight just a few of the many who will be affected. We appreciate the board committee's support in helping to make this a reality.