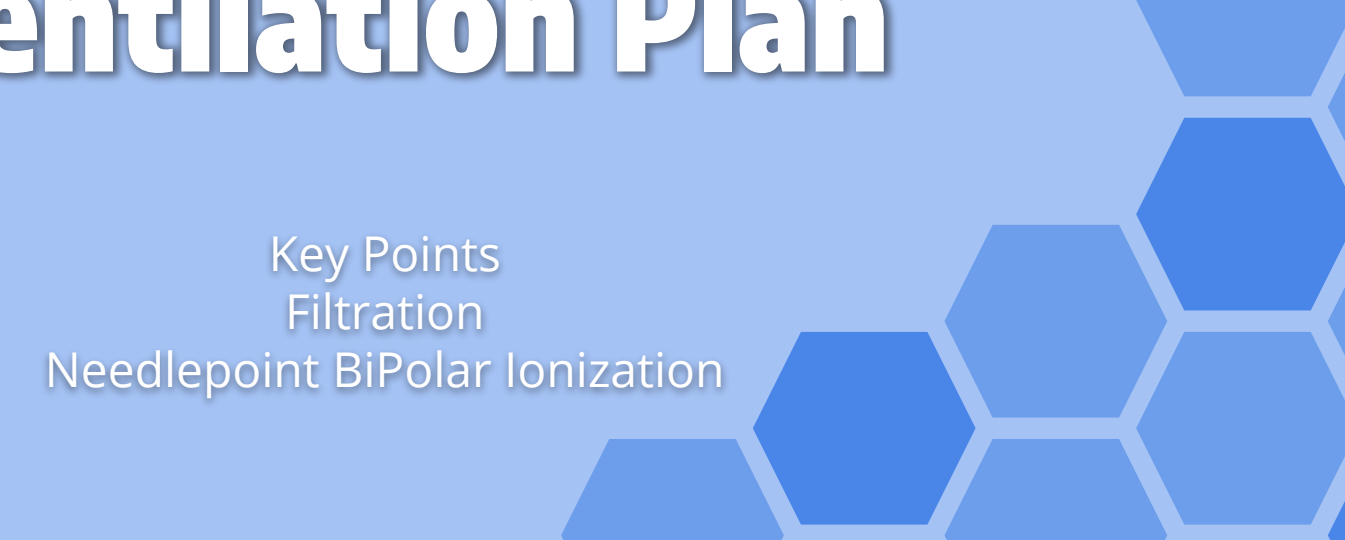




CNUSD Ventilation Plan

Key Points
Filtration
Needlepoint BiPolar Ionization

Key Points

- CNUSD is following the current guidelines outlined in the CDPH Consolidated Guidance for K-12 Schools and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) guidance on ventilation.
- CNUSD has consulted with mechanical engineers at **Climatec, Coffman Engineers**, and with guest speaker **Andrew Gossman PE, HFDP, LEED AP BD+C** regarding compliance with the guidance in the document listed above.
- CNUSD has upgraded to the highest grade filter possible (MERV-11) and we are currently installing MERV-13 filters in newer HVAC units throughout the district capable **and** maximized outdoor air intake to increase airflow rates above code requirements.

Enhancing Indoor Air Quality

- In an effort enhance Indoor Air Quality, CNUSD has secured and begun installation of Needlepoint Bipolar Ionization devices in order to increase efficiency of the filtration in **all** HVAC units throughout the district.
- Installations are prioritized by classrooms, gymnasiums, multi-purpose rooms and larger shared spaces, and offices.
- Installations will be completed prior to the start of the 2021-22 school year.

HVAC Filtration

HVAC units have been upgraded with MERV-11, 4-ply filters with an antimicrobial coating and increased outdoor air supply to the maximum extent possible.

MERV-13 filters are installed in our newer HVAC units throughout District.

TRI-DeK MERV-11 filters are considered hospital grade and currently in-use in the following area hospitals:

- Chapman Hospital
- City of Hope
- El Centro Regional Hospital
- Hemet Hospital
- Meniffee Hospital
- Naval Hospital
- Palomar Medical Hospital
- Temecula Valley Hospital

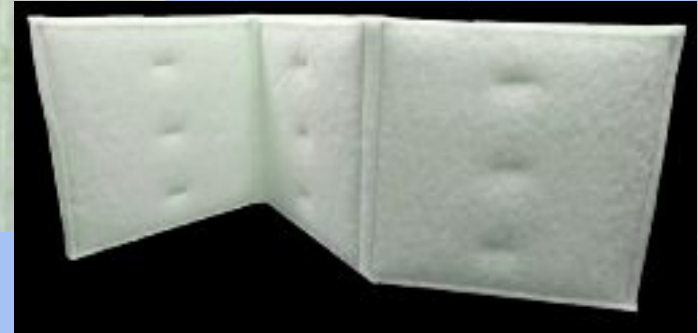
HVAC Filtration

MERV-13

Pleated Style



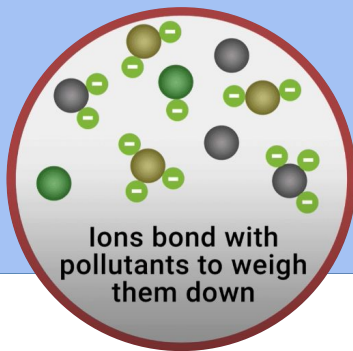
**MERV-11 antimicrobial
Panel Style Tri-Dek**



Needlepoint BiPolar Ionization

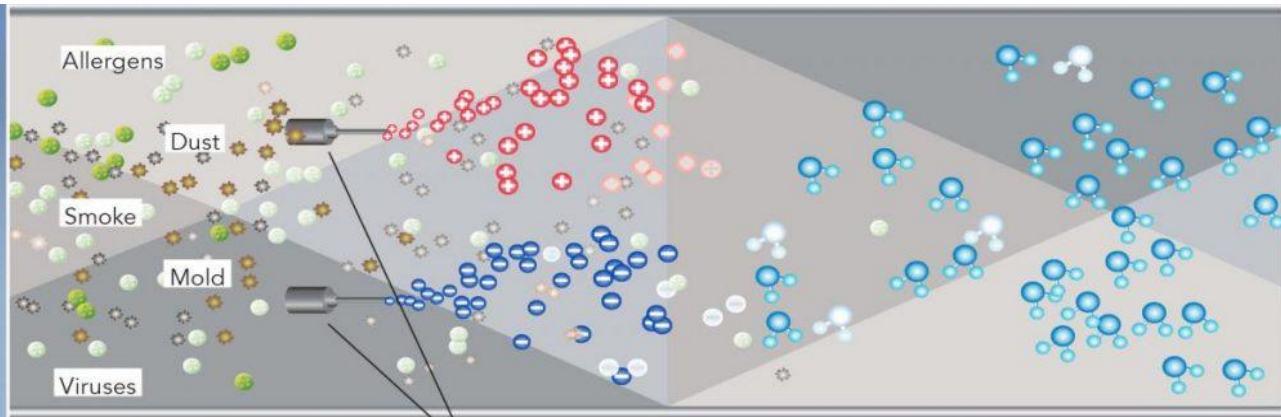
- BiPolar Ionization technology improves indoor air quality by removing pollutants and deactivating pathogens in the space.
- Underwriters Laboratories (UL-867 & 2998) certifies **zero** ozone generated.
- Deactivates SARS-COV-2 Virus (COVID-19) at a rate of 99.4% effectiveness.
- Third party tested to increase filter efficiency by 4-5 MERV ratings.
- Treats the air and surfaces in the occupied space with virtually no maintenance required.

Needlepoint BiPolar Ionization



Polluted Air

Clean Air



Needlepoint Bipolar Ionization

Needlepoint BiPolar Ionization

Notable organizations and school districts currently using Bipolar Ionization:

- **The White House**
- **Johns Hopkins Medicine**
- **Google**
- **Harvard University, Business School, and Medical Center**
- **Duke Medical**
- **Mayo Clinic**
- **400+ Colleges and Universities**
- **Chaffey Unified School District**
- **Colton Joint Unified School District**
- **Menifee Unified School District**
- **Moreno Valley Unified School District**
- **Redlands Unified School District**
- **Torrance Unified School District**
- **Fontana Unified School District**
- **1,300+ K12 Schools**

Conclusion and Questions



- Information will be shared by our Communications office through our staff and community newsletters.