



CASH Webinar

Maintenance and Operations: Sanitizing, Disinfecting, Healthy Air and Constant Monitoring

Julie Arthur, CASH Chair, Palm Springs USD

Jeff Becker, CASH Vice Chair, Office of the Fresno Co. Supt. Of Schools



May 21, 2020

HOUSEKEEPING

- All Attendees are muted.
- If you would like to ask a question, please use the Chat feature.
 - Make sure you are messaging “**All Panelists and Attendees**” by using the drop down.
- This Webinar is being recorded and will be made available to CASH Members for future reference.



HEALTH-SECURITY: A COMPREHENSIVE PLAN OF ON-GOING MAINTENANCE, SANITIZING AND DISINFECTING

CASH MAINTENANCE NETWORK UPDATE

Joe Dixon
CASH Board Member
Dixon SmartSchoolHouse

Assessment

- Front office
 - Shielded spaces?
 - Limited access?
 - Appointments?
- Restrooms
 - Handsfree
- Classrooms
 - Clutter
 - Layout
- Playground
 - Allowable activities



IMMEDIATE ACTIONS

- Clean and sanitize (disinfected)
 - Training and PPE
- All systems functioning
 - More later
- Custodial schedules in place
 - Janitor vs caretaker
- Curb appeal
 - Parent and student confidence



IMMEDIATE ACTIONS - PLANNING

- Schedules
 - M & O
- Flexibility with job descriptions
 - Negotiated (HR)
- Certificated staff contributions
 - Cleaning
 - Personal items removed
 - Clutter

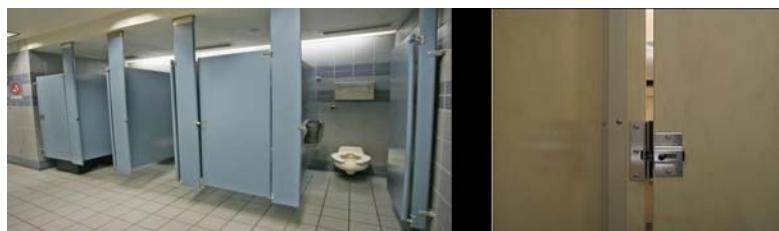
ONGOING ACTIONS

- Modify classroom layouts
- Cleaning touch points
- Surfaces conducive to harboring virus
- Clutter removal



RESTROOMS

- Monitored access
- Limited numbers
- Rotational use/cleaning schedule



PLANNING FACILITIES

- Hands free access and use
- Site layout
- Furniture and equipment



CASH MAINTENANCE NETWORK

- Handbook - guidelines and tools
- Purpose
- Committee
- Timeline

*•The CASH Maintenance Network (CMN) Resources for Healthy Schools:
Cleaning, Disinfecting and Healthy Air Quality*

A Reference for School Facility and Maintenance Departments”



SHARE PRACTICES AND SOLUTIONS

Membership in CASH and the CASH Maintenance Network provides the ability to share information.

Please stay connected . . .



USE AND EXPECTED COSTS OF “ELECTROSTATIC SPRAYERS AND FOGGERS” TO SANITIZE/DISINFECT INDOOR AND OUTDOOR FACILITIES

Jose De La Mora
Long Beach USD



VP200ESK SAFETY INSTRUCTIONS | 1


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SANI-FOGGER
 ULV Fogger/Atomizer (aka Cold Fogger)

DESIGNED TO SANITIZE:
 The SANI-FOGGER is ready to get into spaces other foggers / atomizers cannot.

Features:

- Cordless pump and blower
- Custom 3 jet manifold with inline filters
- ULV particle size ranging from 10-48 microns
- Electrostatic discharge
- Foam padded back pack with chest and waist straps
- Quick disconnect fittings on all joints
- Brass valve shutoff at lower disconnect
- 2.2 Gallon capacity
- 50 foot range. (Weather conditions will vary results)

PLUG and PLAY:
 This unit is designed to fill the gap for the sanitizing industry as a rapid, high volume ULV fogger. It is capable of quickly tackling both large indoor and outdoor project areas where other machines fail.

NOT A RISK TO CLIENTS:
 Indoor application can occur in offices without destroying paperwork or electronic devices.

This unit is also ideal for duct work as well.




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HEALTHY VENTILATION: HVAC UNITS, ECONOMIZERS AND FILTERS

Rex Wang
LEAF Engineers
Ian Padilla
Murdoch, Walrath & Holmes



INDOOR AIR QUALITY

**EMERGING ISSUE FOR SCHOOL
FACILITY AND MAINTENANCE
DEPARTMENTS:
IAQ/VENTILATION/ACCEPTANCE
TESTING/CO₂ MONITORING**



IAQ LONG-STANDING ISSUE FOR SCHOOLS

- IAQ key for health and academic performance
- Energy efficiency and IAQ
- Four Basic Parts:
Installation/Equipment/Maintenance/Monitoring
- Sacramento Bee Article (air quality in classroom
silently undermining student's chances at
success...")

A TALE OF TWO STUDIES

- 2004 CARB study on indoor air quality in
portable classrooms
- Concludes - M&O practices are critical (HVAC
maintenance/Thermal/Filters)
- 2019 UC Davis study on IAQ in schools focused
on new schools
- Concludes - M&O Practices are critical (HVAC)

REGULATORY/LEGISLATIVE CONTEXT

- Primary oversight agencies- Division of the State Architect (DSA)/California Energy Commission (CEC), Building Standards Commission (BSC)
- CalGreenCode/Title 24 – Commissioning/Acceptance Testing
- Co2 monitoring
- AB 2162 (O'Donnell) - Stakeholders Discussion

IAQ AND COVID-19

- What is the relationship?
- Governor's comments

Healthy Ventilation: HVAC Units, Economizers, Filters

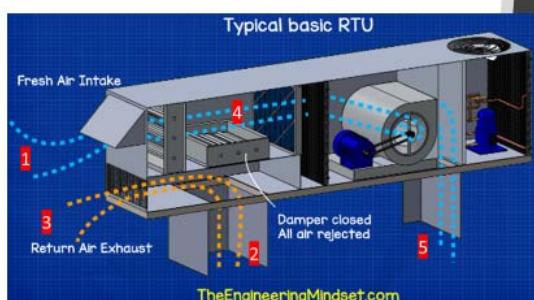
Rex D. Wang, P.E., LEED AP
LEAF Engineers
Director
Ontario, CA

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Healthy Ventilation: HVAC Units

- Path of Air [Numbered]
 - Economizer (Barometric vs Power)
 - Outside Air [1]
 - Return Air [2]
 - Exhaust Air [3]
 - Mixed air [4]
 - Filters
 - Cooling / Heating
 - Fan
 - Supply Air [6]

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Healthy Ventilation: Economizers

- If outside air is “cooler” than indoor air, outside air as the first stage of cooling.
- Barometric vs Power
- Common malfunctions:
 - Debris
 - Dampers are stuck
 - Power exhaust fan is not operating properly

Demand Control Ventilation

- Occupancy Schedules
- Occupancy Sensors
- **CO2 (Carbon Dioxide) Sensors**
- Predetermined CO2 PPM setpoint
- Once setpoint is reached, economizer damper will modulate to reduce indoor CO2 concentrations

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Healthy Ventilation: Filters

MERV (Minimum Efficiency Reporting Value) Rating

- Typical filters are MERV-8
 - 30-35% Efficiency*
- 2019 Code minimum is MERV-13
 - 89-90% Efficiency*
- Most sizes are interchangeable

*Dust Spot Efficiency

HEPA (High Efficiency Particulate Air) Filters

- Surpasses MERV ratings at 99.97% efficiency of particles 0.3 micron.
 - Average Diameter of Corona Virus' is approximately 0.125 micron. (Wikipedia)
- The standard for sensitive spaces (Hospital Operating Rooms and Clean Rooms)

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Healthy Ventilation: Checklist

HVAC Controls

- Does the overall appearance of the Thermostat appear to be in good condition (does not show excessive wear, t-stat is not obstructed, etc.)?
- When placed into heating does the unit respond?
- When placed into cooling does the unit respond?
- When CO2 levels are above DCV setpoint, does the unit respond with enabling economizer?
- Does the (standalone) thermostat enable the unit at the scheduled time?
- Does the (standalone) thermostat disable the unit at the scheduled time?
- Does the Building Management System (BMS) front-end properly functioning and configured (icons respond with proper functions, are you able to navigate through the campus to various units without lag, unit enable/disable is clearly distinguishable, are the units all properly tagged on the screen, etc.)?
- Does the BMS main panel appear to be in good condition (wires are neatly organized, board is clean, panel is free from debris, panel is free from excessive rust, no signs of water intrusion, etc.)?
- Does the BMS sub or local panel appear to be in good condition (wires are neatly organized, board is clean, panel is free from debris, panel is free from excessive rust, no signs of water intrusion, etc.)

Air Conditioning Unit

- Does the main fan operate properly (free from abnormal noises, visually appears in good condition, etc.)?
- Do the condensing coils appear to be in good condition (free from debris, absence of leaks, fins straight, etc.)?
- Does the compressor appear to be in good operation (free from abnormal noises, visually appears in good condition, etc.)?
- Does the condenser fan operate properly (free from abnormal noises, visually appears in good condition, etc.)?
- Do the unit controls appear to be in good operating condition (no leaks in the cabinet, wiring is neat, free from debris, etc.)?
- Does the economizer appear to be in good operating condition (no leaks in the cabinet, wiring is neat, free from debris, dampers operate smoothly, damper is not obstructed, etc.)?
- Does the electrical disconnect appear to be in good condition (panel is does not show excessive wear, operates smoothly, etc.)?
- Does the filter show normal signs of usage and up to date with replacement?
- Does the overall exterior of the unit appear to be in good condition (does not show excessive wear, seals are operating properly, no sign of water intrusion, roof flashing appears to be in good condition, etc.)?

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Healthy Ventilation: LEAF Engineers Building Well Whitepaper

BASIC COST

FOR EXISTING FACILITIES

- Ensure all fresh air dampers are modulating properly and opening to the correct position on unit RUN command
- Ensure all system air filters are changed with fitted and minimum MERV 8 rated replacement filters at their designated monthly expiration date
- Inspect cooling coils and drain pans for cleanliness and drainage of condensate

LOW-MEDIUM COST

COST

- Enable air side economizers to flush out buildings with 100% fresh air as often as possible
- Toggle demand-controlled ventilation sequences to maintain fresh air volumes at design 100% of RUN time in occupied mode
- Extend run time on all air handling systems, optimal start

HIGHER COST

COST

- Retro-commission and conduct professional air handling system inspections and air quality surveys of all facilities and HVAC components; replace outdated units
- Add permanent indoor and outdoor air quality monitors and reporting instrumentation for real time data collection on ventilation system safety and effectiveness



PAYING FOR SCHOOL RE-ENTRY: STATE FUNDING/DOF MAY REVISIONS & FEDERAL AID TO SCHOOLS

Dave Walrath

Murdoch, Walrath & Holmes

Bob Canavan

Federal Management Strategies, Inc.



MAY REVISION UPDATE

Dave Walrath, Coalition for Adequate School Housing (CASH)



K-14 PROPOSITION 98 MINIMUM GUARANTEE ESTIMATES

	2019-20	2020-21
January 2020	\$81.6	\$84.0
May 2020	\$77.4	\$70.5
Difference	-\$4.2	-\$13.5

(in billions)

FILLING THE HOLE 2019-20

- Deferrals (\$1.9 billion)
- Rainy Day Fund
- Deleting new programs, new policy changes, reversions and similar savings

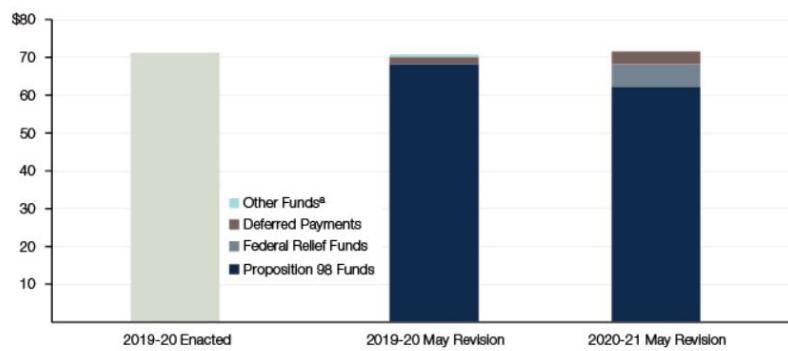
FILLING THE HOLE 2020-21 AND GOING FORWARD

- Larger deferrals (\$5.4 billion)
- Revenue from Tax Credit reduction
- Rainy Day Fund
- 10% cut to LCFF
- 50% cut to selected categorical aid funds
- No new programs
- Federal Funds (fills local holes and has specific allocations and requirements regarding spending)
- Expenditure flexibility by reducing employer retirement contributions

Figure 5

Deferred Payments and Federal Funds Offset Reductions in K-12 Funding

Funding for K-12 Schools (In Billions)



^a Consists of settle-up payments and one-time fund swaps.

LAOA

SCHOOL FACILITY SPECIFIC

- School Facility Specific
- No change to \$1.5 billion in proposed Proposition 51 apportionments for 2020-21
- No change to RRMA
- Greater flexibility for use of site sale proceeds

CASH Federal COVID-19 Proposed Assistance: HEROES ACT – HR 6800

Bob Canavan
Federal Management Strategies, Inc.

Federal COVID-19 HEROES Act, HR 6800

CARES Act: California schools will receive COVID-19 federal funds to support local services. Thanks to CASH and CSF for advocating for California school facilities.

NEXT STEP: House Health and Economic Omnibus Emergency Solutions (HEROES) Act:

- \$1 trillion AID to state, cities and counties, \$58 billion to K-12 education.
- House Democrat leaders moved the \$3 trillion HEROES bill quickly to provide additional COVID-19 aid to states, cities, counties, school districts, hospitals, and individuals.
- The House passed the HEROES ACT H.R. 6800 COVID-19 recovery bill, 208-199, on a party line vote. Twelve Democrats voted No, one Republican voted Yes.
- House passage of HEROES Act and the \$1 Trillion aid to states, cities and counties and \$58 billion aid to K-12 Education is the starting point for House, Senate and Administration negotiations. Senate Republicans are moving slowly, next action could be late June or July 4.
- Administration officials are studying additional aid for state and local governments and "haven't reached a firm conclusion."

35

HEROES Act, HR 6800

- **Health and Economic Omnibus Emergency Solutions (HEROES) Act Recovery: Aid to states, cities, counties, \$58 billion for K-12 education.**
- The HEROES Act (HR 6800) provides \$1 trillion in COVID-19 Aid for states, cities and counties, additional education funding, additional family cash payments, business loans, housing assistance, medical research, expanded unemployment insurance extension, highways, and tax changes i.e. state income, property tax deductions. Aid includes:
 - \$500 billion for states (\$250 billion on enactment, \$250 billion by May 30, 2021).
 - \$375 billion split equally between municipalities and counties.
 - \$20 billion for territories and \$20 billion for tribes.
 - \$755 million for the District of Columbia.
- **HEROES Act allows use of funds to replace reduced state and local revenue since COVID-19, in addition to the costs of fighting the pandemic. (not in CARES Act).**
- School infrastructure is not directly in the HEROES Act but flexibility does allow for cleaning, sanitizing and disinfecting of facilities, transportation as well as purchasing technology that aids student learning.

36

HEROES Act, HR 6800

HEROES Act H.R.6800 Education Funding Provision Summary:

- **STATE FISCAL STABILIZATION FUND.** \$90 billion distributed to Governors, including:
 - \$58 billion for K-12 local educational agencies.
 - \$4 billion for governors to support K-12, higher education and related activities.
 - \$450 million each for the Bureau of Indian Education and outlying areas.
 - \$27 billion for public higher education institutions (plus an additional \$10 billion for higher education, including \$1.7 billion for historically black colleges and universities and minority serving institutions).
- **DISTRIBUTION OF STABILIZATION FUNDS TO GOVERNORS AND TO LOCAL EDUCATIONAL AGENCIES.**
 - Funding for each state based 61% on the state's relative share of the population aged 5-24 and 39% on the state's relative number of low-income children (i.e., eligible children under Title I ESSA).
 - 65% must be distributed to K-12 school districts based on their relative share of Title I funding.
 - No reservation for state departments of education.
- **ED Secretary Use of Funds:** The HEROES Act includes language limiting the Secretary's micro-grants to students and families to purchase services from private providers and using State Fiscal Stabilization public school funds for private schools.
- **EMERGENCY CONNECTIVITY FUND (E-Rate).** \$1.5 billion, through Federal Communications Commission, to help schools and libraries connect students to the Internet, including purchasing hotspots, devices, and equipment.
- **USDA:** SNAP allocated \$10 billion, Child Nutrition allocated \$3 billion in additional funding.
- **HHS:** Child Care Development Block Grant allocated \$7 billion in additional funding.

37

HEROES Act, HR 6800

\$1 Trillion State and Local Coronavirus Relief Funds

The Heroes Act - \$1 Trillion nationally

California State Estimate: numbers in billions

YEAR 1	YEAR 2	TOTAL
\$21.53	\$26.53	\$48.06

Estimates prepared by the Congressional Research Service.

*Year 2 assumes state unemployment levels undergo identical per capita increase

38

HEROES Act, HR 6800

EDUCATION FUNDING Estimated HEROES Act State Grants

Estimated Grant Amount to CA	\$10,716,134,000 M12.03%
Estimated LEA	\$6,965,487,000
Estimated Higher Ed	\$3,214,840,000
Est. Statewide Activities	\$535,807,000

The Allocation of Funds Within State Based on Language for a State Fiscal Stabilization Fund Program, Using 2018 Population Estimates and Preliminary FY2020 Title I-A Formula Child Counts and Assuming an Appropriations Level of \$90 Billion.

39

FEMA AND OTHER FEDERAL FUNDING SOURCES: ACCOUNTING FOR EXPENDITURES

Lettie Boggs
Colbi



Federal Funding

CARES ACT & FEMA

Two Funding Sources: CARES ACT and FEMA

CARES Act funding is allocated based on Title 1 formula, but does not have to be spent at Title 1 schools or follow other Title 1 requirements

CARES Act funding covers 100% of eligible expenditures up to the amount of your grant

CARES Act is administered by



<https://www.cde.ca.gov/fg/aa/ca/caresact.asp>

<https://oese.ed.gov/files/2020/05/ESSER-Fund-Frequently-Asked-Questions.pdf>



Two Funding Sources: CARES ACT and FEMA

FEMA funding is administered by



FEMA funding covers 75% of eligible costs, after all other sources have been applied (no double dipping)

FEMA has very rigorous audit requirements

<https://www.caloes.ca.gov/cal-oes-divisions/recovery/covid-19>



The FEMA Process – in brief

Request for Public Assistance (RPA)

Receive Approval, receive an Assigned Program Delivery Mgr (PDMG)

Manage your Damage Inventory (expenditures and documentation)

Within 60 days of the end of the event, submit your Streamlined App



Coding and Audit

- Designate a unique project identifier in the coding
- Track like a grant with a very heavy audit requirement
- Every FEMA expenditure will need a very granular tie to its use in the disaster or recovery
 - Time sheets, distribution records, etc.
 - Keep grants targeted, perhaps by site + one for district
- Keep all related documents – and if you store them in the fiscal system make sure they will not disappear prior to the audit



Strategy

- Use the CARES Act funding first – it is 100%
- Use the FEMA money next – it reimburses 75%

Keep in mind that they don't cover the same things but both cover some things.

Refer to the websites to form a plan of what you will be tracking against each grant type.



Questions & Answers

- Please use the Chat feature on your screen to ask questions.
 - Make sure you are messaging “All Panelists and Attendees” by using the drop down.

UPCOMING WEB EVENTS

Thank you for attending today's webinar.

Please mark your calendars for these future dates and topics:

Thursday, May 28, 2020
10:00 a.m. – 12:15 p.m.

Part Two
Maintenance and Operations:
Sanitizing, Disinfecting,
Healthy Air and Constant
Monitoring

Stay safe out there!
-CASH

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