FACILITIES RESPONSE TO CORONAVIRUS

Ventilation, Cleaning & Disinfection Plan



2021-2022





1. FILTER CHANGES

New Haven Public Schools currently uses MERV 8 & MERV 13 filters throughout the district and those filters are scheduled for change once annually. Filters have been replaced to a minimum of MERV 8. Where applicable, filters have been changed out to MERV 13. MERV 13 filtration is an effective tool in removing respiratory droplets from the air for added filtration benefits.

2. DAILY AIR

ASHRAE has recommended running ventilation systems for a minimum of 2 hours in occupied mode, with the peak outside air rate,



before teachers arrive each day. Increased HVAC operation will result in higher energy costs, but a cleaner supply of air. For this reason we are recommending extended operations rather than continuous system operation. NHPS Facilities Department has adjusted our run times and controls settings and schedules to increase the times that the ventilation systems and fans are running throughout the district to start at 4:00 am and end at 10:00 pm thereby increasing the turnover of outside air by 3 hours a day With the improved filtration mentioned above it is important to make sure that air is moving through the system and being filtered. NHPS is increasing ventilation rates by 100% where feasible throughout the district.

3. DEDICATED OUTDOOR AIR SYSTEMS (DOAS)

New Haven Public Schools including ESUMS, New Haven Academy, East Rock, Hill Central and Obama all have dedicated outdoor air systems (DOAS). DOAS can take multiple forms but must be able to independently deliver heating, cooling, and ventilation where, and only when, it is needed and avoids the use of recirculated air. DOAS can be paired with appropriately designed controls systems, including CO2 monitors, to deliver the precise amount of fresh outdoor air directly to each space without recirculating contaminants or pathogens generated in other spaces. DOAS were designed for optimal use in facilities that do not have manual window in the building. DOAS need to utilize energy recovery systems to reduce energy use and meet efficiency standards. Although these facilities do not have windows are manually opened, the classrooms are being delivered the maximum amount outside air; even greater than a manual window can offer. As recommended by third party engineering company, Fuss & O'Neill, dampers have been set to a minimum of 30% to allow more outdoor air to flow into the buildings.

4. INDOOR AIR QUALITY PROGRAM

NHPS will continue to monitor the IAQ Program by identifying and removing any existing IAQ problems, comply with Green Cleaning Program, comply with the Integrated Pest Management (IPM) plan, and monitor the AHERA Plan.

5. GREEN CLEANING PLAN

NHPS will continue to comply with the State of Connecticut Green Cleaning Program which states No person shall use a cleaning product inside a school unless such cleaning product

meets guidelines or environmental standards set by a national or international environmental certification program approved by the Department of Administrative Services, in consultation with the Commissioner of Environmental Protection.

NO PARENT, GUARDIAN, TEACHER OR STAFF MEMBER MAY BRING INTO THE SCHOOL FACILITY ANY CONSUMER PRODUCT WHICH IS INTENDED TO CLEAN, DEODORIZE, SANITIZE OR DISINFECT

6. VOLATILE ORGANIC COMPOUNDS

NHPS has made a concerted effort to reduce the amount of (VOCs) within the schools. In addition to reducing the amount of CO2 and increasing ventilation, it is also important to reduce the amount of pollutants created within learning spaces.(VOCs) are one of the primary indoor air contaminants. VOCs are generated primarily by off gassing from building products and materials. VOCs come from many types of materials including paints, sealants, flooring, drywall, ceiling tiles, composite wood and furniture.





COVID-19 Deep Cleaning & Disinfection Protocol

Issued by Executive Director of NHPS

The Cleaning Contracted Vendor will train on the proper use of their products. Supervisors will be responsible to ensure that protocols are followed.

What We Know

Cleaning and disinfecting are part of a broad approach to preventing infectious diseases in schools. Infectious diseases are generally spread through harmful microorganisms or environmental pathogens, such as viruses, bacteria, fungi, etc., via direct person-to-person contact with an infected individual or by touching objects contaminated by infected individuals, such as doorknobs, elevator buttons, handrails and other frequently touched surfaces. These germs are then transmitted from the hands to the nose, mouth or eyes.

Effective cleaning and disinfecting of environmental surfaces, including "high touch" or frequently touched surfaces, significantly decreases the number of environmental pathogens on those surfaces, which in turn, reduces the risk of transmission and infection. These "frequency areas" and items known or likely to be contaminated should be disinfected at least daily.

Exactly how long the virus that causes COVID-19 lives on hard surfaces is unknown at this time, but other corona viruses live up to several days on such surfaces. Therefore, we recommend taking protective measures when cleaning and disinfecting surfaces.

THE DIFFERENCE

Between Cleaning and Disinfecting

- Cleaning removes germs, dirt and impurities from surfaces or objects. Cleaning works by using soap (or detergent) and water to physically remove germs from surfaces. This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.
- Disinfecting kills germs on surfaces or objects.
 Disinfecting works by using chemicals to kill
 germs on surfaces or objects. This process
 does not clean dirty surfaces. By killing germs
 on a surface after cleaning, it lowers the risk of
 spreading infection.
- Sanitizing lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements. This process works by either cleaning or disinfecting surfaces or objects to lower the risk of spreading infection.
- Cleaning and disinfection of frequently touched surfaces will be the key focus of building services personnel during a pandemic. The Centers for Disease Control and Prevention (CDC) recommends cleaning frequently touched surfaces and commonly shared items at least daily and when visibly soiled.

Best Cleaning and Disinfecting Practices CLEAN AND DISINFECT SURFACES AND OBJECTS THAT ARE TOUCHED OFTEN.

- Follow your school's standard procedures for routine cleaning and disinfecting. Typically, this means daily sanitizing of surfaces and objects that are touched often, such as desks, countertops, doorknobs, computer keyboards, hands-on learning items, faucet handles, phones and toys. Some schools may also require disinfecting these items every day. Standard procedures often call for disinfecting specific areas of the school, like restrooms.
- Immediately clean surfaces and objects that are visibly soiled. If surfaces or objects are soiled with body fluids or blood, use gloves and other standard precautions to avoid coming into contact with the fluid. Remove the spill, and then clean and disinfect the surface.
- The following are responsible for cleaning & disinfection training following manufacturing quidelines:
 - GoTo Services will train local 287 custodial staff
 - EcoUrban Pioneers are responsible to train their staff
 - PMA will provide training utilizing the Facilities
 Department approved cleaning products for
 teachers and administration staff. They will
 follow local, state, federal and manufacturers
 guidelines.

KEEP ROUTINE CLEANING AND DISINFECTING PRACTICES IN PLACE.

 Most viruses are relatively fragile, so standard cleaning and disinfecting practices are sufficient to remove or kill them. Special cleaning and disinfecting processes, including wiping down walls and ceilings, frequently using room air deodorizers and fumigating, are not necessary or recommended. These processes can irritate eyes, noses, throats and skin; aggravate asthma; and cause other serious side effects.

CLEAN AND DISINFECT CORRECTLY.

- Always follow label directions on cleaning products and disinfectants. Wash surfaces with a general household cleaner to remove germs. Rinse with water and follow with an Environmental Protection Agency-registered disinfectant to kill germs.
- If a surface is not visibly dirty, you can clean it with an EPA-registered product that both cleans

- (removes germs) and disinfects (kills germs) instead. Be sure to read the label directions carefully, as there may be a separate procedure for using the product as a cleaner or as a disinfectant. Disinfection usually requires the product to remain on the surface for a certain period of time (e.g., letting it stand for three to five minutes).
- Use disinfecting wipes on electronic items that are touched often, such as phones and computers. Pay close attention to the directions for using disinfecting wipes. It may be necessary to use more than one wipe to keep the surface wet for the stated length of contact time. Make sure that the electronics can withstand the use of liquids for cleaning and disinfecting.
- When an EPA-registered disinfectant is called for, be sure to follow the label directions on the disinfectant for dwell time—the amount of time necessary for the disinfectant to reside on the surfaces. Also make sure the surface remains wet during the dwell time to properly disinfect and kill the germs.

USE PRODUCTS SAFELY.

- Pay close attention to hazard warnings and directions on product labels. Cleaning products and disinfectants often call for the use of gloves or eye protection. For example, gloves should always be worn to protect your hands when working with bleach solutions.
- Do not mix cleaners and disinfectants unless the labels indicate it is safe to do so. Combining certain products (such as chlorine bleach and ammonia cleaners) can result in serious injury or death.

DWELL TIME

What is it, and why it is so important?

"Dwell time," or the time the disinfectant or bleach solution remains on a surface prior to wiping or rinsing, is critical to how well it kills germs and viruses. Be sure to know the dwell time for any cleaning & disinfecting agents that you are using.

• Custodial staff, teachers and others who use cleaners and disinfectants must be trained to read and understand all instruction labels and understand safe and appropriate use. This might require that instructional materials and training be provided in other languages. Safety data sheets (SDS) should be obtained from the supplier or manufacturer prior to use of any new product. Proper personal protective equipment (PPE) should be used as needed, to include eye and skin protection. The manufacturer's instructions and SDS are good places to find PPE recommendations.

HANDLE WASTE PROPERLY.

 Follow your school's standard procedures for handling waste, which may include wearing gloves. Place no-touch waste baskets where they are easy to use. Throw disposable items used to clean surfaces and items in the trash immediately after use. Avoid touching used tissues and other waste when emptying wastebaskets. Wash your hands with soap and water after emptying

OTHER GENERAL DISINFECTION/CLEANING CONSIDERATIONS

- Do not clean with dry dusting or sweeping because this may create aerosols. Use damp cleaning methods.
- Change mop heads, rags, and similar items and disinfectant solutions frequently during the decontamination procedure. Consider disposable cleaning items. Work from areas of light contamination to areas of heavier contamination.
- Use a double-bucket method (one bucket for cleaning solution, one for rinsing).
- Clean, disinfect and dry equipment used for cleaning after each use.
- Wash hands thoroughly after each work session.

ITEMS THAT NEED TO BE SPECIFICALLY DISINFECTED DURING A PANDEMIC

1. Restrooms/Bathrooms:

- a. Doorknobs or handles
- b. Light switches and cover plates
- Paper towel dispenser knobs or handles
- d. Faucet handles
- e. Toilet and urinal flush levers
- f. Toilet and urinal partitions, doors (including knobs, levers, or slides)
- g. Other items identified locally

2. Lunchroom/Cafeteria:

- a. Refrigerator door handles
- b. Microwave/warmer door handles
- c. Tabletops
- d. Doorknobs or handles
- e. Light switches and cover plates
- f. Vending machine buttons
- g. Drinking Fountain (if in use)

3. Locker room:

- a. Doorknobs or handles
- b. Light switch covers
- c. Other items identified locally

4. Classroom and office spaces:

- a. Doorknobs and handles
- b. Light switches and cover plates
- c. Telephones/intercoms
- Other commonly touched items (keyboards, touch screens, copiers, mouse)

5. Other locations:

- Elevator call and operating buttons
- Stairway handrails, doorknob, switches
- Hallway doorknobs, handles, drinking fountain faucets (if in use)
- Vehicles' steering wheels, door handles, shift knobs, dash controls





Covid-19 Deep Cleaning Protocols

(For Unoccupied Spaces)

Personal Protective Equipment will be supplied (face masks, gloves, hand soap, paper towels, disinfectant wipes and proper trash cans) and required while Social Distancing is practiced at all times while in the school. The Environmental Health & Safety Trainer and Coordinator (E.H.S.) will distribute PPE and provide training education and training. Tom.Falzone@new-haven.k12.cl.us

Checklists (see the attached lists) will be utilized as each phase is completed so that we have a paper trail of all work and who performed the work Teachers and Staff to remove, bag and label all personal items from classrooms for pickup including but not limited to teaching aids, books, lesson plans as well as all items from desks, cubbies and lockers.

- Teachers and staff to remove all items from walls and discard as appropriate (posters, signs, pictures, artwork etc.) Teachers to place all trash outside their classrooms in the hallways for custodial disposal.
- Custodial Staff will remove all furniture (desks, chairs, tables, stands, anything not permanently attached) to the hallway where it will be thoroughly cleaned.
- Custodial staff will start at the ceiling replacing and cleaning ceiling tiles, lights lens and HVAC vents, fire strobes, horns and sprinklers heads.
- Additional custodial staff will clean the walls and glass.
- Custodial staff will strip all floors and apply multiple coats of wax
- The cleaned furniture will be re-entered into the classroom allowing for social distancing requirements.
- The same protocol will be used in all rooms, hallways and stairwells throughout the building and the restrooms will utilize kiviak steam machines on all surfaces.
- After the entire room is reset a complete and thorough defogging of the entire room from ceiling to floor with an emphasis on all frequent touch points will be completed Only after all of this work is completed will the room will be sealed off until the start of the school year.
- On a nightly basis, soap, paper towels and toilet paper will be replenished.





Covid-19 Disinfecting Protocols

At this point the CDC recommends using "Spray or Wipe" disinfectants for regular cleaning of "frequently touched objects & surfaces" a.k.a. "common touch point surfaces."

New Haven Public Schools custodial staff will provide the following services to help prevent the spread of COVID-19 Virus:

- Spray and Wipe: Application of disinfectant using spray bottle & microfiber cloths.
- Large area sanitation will take place using "backpack sprayers" to apply disinfecting product.

Covid-19 Disinfecting Protocols

(For Occupied Spaces)

- Restrooms cleaned at 9AM, 11AM, 1PM and after dismissals (unoccupied time)
- Soap dispensers and towel holders filled hourly and hand sanitizers will be checked.
- Common touch points spray and wipe continuously during the day as per checklist
- Breakfast and lunch in the classrooms teachers to assist with proper trash disposal
- Pre-K toys and play equipment to be disinfected periodically throughout the day and each night
- All water fountains will be shut off and bagged except for gym fountains where the fountains will be cleaned on schedule with the restrooms.
- Leave classroom and bathroom doors open to mitigate high tough point exposure
- Students leave desktops clear at the end of day to promote the cleaning and disinfecting process.
- Staff to utilize disinfecting wipes to periodically wipe surfaces and equipment in the nurses and administrative offices.
- Hand sanitizers to be placed in all rooms
- Signage throughout the school reminding everyone to physically distance themselves and to wash hands
- Staff to utilize disinfectant wipes to periodically wipe surfaces and equipment in the nurses and administrative office





COVID-19 DEEP CLEANING & DISINFECTION PROTOCOL FOR COMMON TOUCH POINT SURFACES **NEW HAVEN PUBLIC SCHOOLS FACILITIES DEPARTMENT**

This checklist is to be used to deep clean and disinfect all common touch point surfaces, or for an entire facility.

CHECKLIST INSTRUCTIONS:

- Cleaning staff are required to initial the appropriate box for areas that they have sanitized
- Checklists must be copied and filed on-site then submitted by Building Managers to Supervisors weekly.
 - Supervisors are required to approve each form by printing and

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- Supervisors will provide a copy of each form to Environmental Health & Safety Trainer & Coordinator (E.H.S.). The E.H.S will then file initialing the top right of each form. electronic and hard copies. 4
- See sample of completed form (Fig. 1)

Products used: Hillyard Q.T® Plus 24 Arsenal or Hillyard Re-Juv-Nal (EPA Reg # 1839-169-1658). These are CDC approved products for the treatment of surfaces contaminated by the COVID-19 virus. See links below for SDS sheets

https://b2b.hillyard.com/productdetail/index/grid/wwm/PD~HIL0082400

https://b2b.hillyard.com/productdetail/index/grid/wwm/PD~HIL.0081600

CLEANING STEPS:

- Apply eye protection and gloves
- Clean and wipe surface ri
- Disinfect with backpack sprayer utilizing "ready to use" Hillyard Q.T° Plus 24 Arsenal" or Re-Juv-Nal®solution. က်
- Allow product to remain on surface for 10 minutes of contact time 4
- Dispose of Supplies in Designated Container

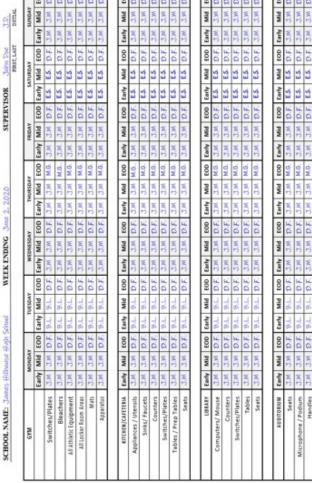


Fig. 1

SUPERVISOR INITIAL WEEK ENDING SCHOOL NAME

BUILDING MANAGER SIGNATURE

ASSISTANT BUILDING MANAGER SIGNATURE

As Needed As Needed As Needed As Needed SUNDAY As Needed As Needed As Needed SATURDAY As Needed End of Day End of Day End of Day End of Day FRIDAY THURSDAY End of Day End of Day End of Day End of Day Deep Cleaning Deep Cleaning Deep Cleaning Deep Cleaning WEDNESDAY End of Day End of Day End of Day End of Day TUESDAY End of Day End of Day End of Day End of Day MONDAY Mats Seats Tables Seats Seats All Locker Room Areas Appliances / Utensils Switches/Plates Tables / Prep Tables Handles Switches/ Plates Switches/Plates Bleachers All Athletic Equipment Apparatus Sinks/ Faucets Counters Computers/ Mouse Counters Switches/Plates Microphone / Podium KITCHEN / CAFE **AUDITORIUM** LIBRARY GYM





SCHOOL NAME

SUPERVISOR INITIAL		
WEEK ENDING	BUILDING MANAGER SIGNATURE	ASSISTANT BUILDING MANAGER SIGNATURE

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
CLASSROOMS	End of Day	End of Day	Deep Cleaning	End of Day	End of Day	As Needed	As Needed
Door Handles, Pull/Push Plates							
Chair Hand Rests/Rails							
Tabletops, Desktops & Edges							
Light Switches							
Stair and Mezzanine Railings							
Handicapped Chair Lifts and Rails							
File & Storage Cabinet Handles							
Equipment Buttons/Handles							
Phones and Handles							
Computer, Keyboard, Mouse							
Handles, Buttons, Panels							
All Seats							
Countertops							
Faucets & Sinks							
Doors and Door Windows							
Towel Dispensers							
Trash Can Lids							
TEACHER'S LOUNGE	End of Day	End of Day	Deep Cleaning	End of Day	End of Day	As Needed	As Needed
Appliances/Utensils							
Counters							
Switches/Plates							
Tables/Counters							
Seats							
Vending Machines							





WEEK ENDING

SCHOOL NAME

SUPERVISOR INITIAL

BUILDING MANAGER SIGNATURE

ASSISTANT BUILDING MANAGER SIGNATURE

	4	MONDAY	١٨		TUESDAY	٩٧	WE	WEDNESDAY	Ė	THURSDAY	١٨	-	FRIDAY		SA	SATURDAY	,	SI	SUNDAY	100
RESTROOMS	Early	Mid	EOD	Early	Mid	EOD		Deep Cleaning	Early	Mid	EOD	Early	Mid	EOD	Early	Mid	EOD	Early	Mid	EOD
Sanitary Dispensers																				
Sinks & Faucets																				
Handles & Knobs						27 12														
Toilets & Urinals																				
Trash Cans						6					6									
Towel Dispensers						200 200									2 3			2		
Hand Dryers																				
		8			200		- 20	24			100					100				
HALLWAYS	Early	Mid	EOD	Early	Mid	EOD		Deep Cleaning	Early	Mid	EOD	Early	Mid	EOD	Early	Mid	EOD	Early	Mid	EOD
Elevators																				
Wall Panel/Buttons																		21 11		
Control Panel/Buttons																				
Lockers						31 12														
Water Fountains																				
ALL Handles/Plates						6					6									
Sanitizing Dispensers					100 7	200 av									Q 3			21 21		
Vending & Dispensers																				
Railings					1 29	100 300									2 SA	- 10				
Security Desks					\square															
NURSE'S OFFICE	Early	Mid	EOD	Early	Mid	EOD		Deep Cleaning	Early	Mid	EOD	Early	Mid	EOD	Early	PiW	EOD	Early	PiM	EOD
Cots																	T			
Chairs					8 0	21 12					20 (5)									
Doors																				
Restroom Area						100					9 35				2 33 2 30	- 2				

Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.



















NATIONAL INSTITUTES OF HEALTH STOP THE SPREAD OF GERMS

FOR EVERYONE'S HEALTH AND SAFETY

PLEASE KEEP YOUR PHYSICAL DISTANCE



For more information: www.cdc.gov/COVID19









INSTITUTOS NACIONALES DE LA SALUD

DETENGAMOS LA PROPAGACIÓN DE GÉRMENES

POR LA SALUD Y LA SEGURIDAD DE TODOS

MANTENGA LA DISTANCIA FISICA





Para más información: https://espanol.cdc.gov/coronavirus/2019-ncov/index.html







Trident Sprayer

NHPS cleaning staff will utilize a Portable Trident S1HH battery operated sprayer for optimal distribution of disinfection products.



Simple, intuitive, and effective. The portable Trident S1HH battery operated sprayer delivers disinfection and sanitizing solutions with speed, consistency and accuracy. In a world that requires disinfectant contact time to deliver efficacy, the S1HH is the ideal application solution. It consistently delivers the right amount of product, giving the disinfecting solution the surface contact time it needs to get the job done right.

- Cordless freedom. Up to 4 hours of run-time with the 18V lithium-ion 2Ah battery.
- Consistent spray pattern delivers optimum coverage to meet contact time requirements.
- One quart on-board capacity with optional two quart backpack system.
- Recommended Hillyard EPA List N Disinfectants effective against SARS-CoV-2 (COVID-19): Q.T.* - 3, Q.T.*-TB.





Products Utilized to Disinfect

Re-Juv-Nal®

A phosphate-free, pH neutral formulation designed to provide effective cleaning, deodorizing, and disinfection where housekeeping is of prime importance in controlling cross-contamination from treated surfaces.

On 10/08/2020, The EPA published updated label claims on List N for Re-Juv-Nal as effective against SARS-CoV- 2, the virus that causes COVID-19 with a 10-minute contact time. Additionally, SARS-CoV-2 will be listed by name on the label.

While the <u>EPA's List N</u> has been updated to reflect this change under EPA No: 1839-169, the change will not be reflected on the **Re-Juv-Nal** label for 90 to 120 days as we move through current stock in the system.

Refer to the CDC website (<u>https://www.cdc.gov/coronavirus/2019-ncov/index.html</u>) for additional information.

- Disinfectant/detergent cleaner with neutral pH.
- Leaves a pleasant scent.
- EPA registered disinfectant.

Technical Specifications

 Appearance
 Clear Liquid

 Dilution Rate
 1:64

 Color
 Red

 Scent
 Floral

 Non Volatile Matter
 7.50 - 8.50%

 pH @ 25 deg. C
 6.00 - 7.00

 EPA Registration No.
 EPA Reg. No. 1839-169-1658

ARSENAL 16



Safety

See material safety data sheet and product for safety information, handling and proper use.

HMIS (Concentrate/RTU)

Flammability = 0/0 Health = 3/1 Reactivity = 0/0

Availability

HIL0081625 4 - 2.5 Liter Containers HIL0081689 72 - 1 oz. Packets HIL0081694 36 - 4 oz. Packets



Q.T.® Plus

A hospital-grade disinfectant/detergent, cleaner, sanitizer, fungicide, mildewstat, virucide, deodorizer that cleans and controls the hazard of cross-contamination from environmental surfaces. Q.T. Plus is designed for use on walls, countertops, fixtures, restroom and shower rooms, and other hard surfaces where disinfectint is a must.

On 7/29/20, The EPA published updated label claims on List N for QT Plus as effective against SARS-CoV-2, the virus that causes COVID-19 with a 3- minute contact time. Additionally, SARS-CoV-2 will be listed by name on the label.

While the EPA's List N has been updated to reflect this change under EPA No: 6836-77, the change will not be reflected on the QT Plus label for 90 to 120 days as we move through current stock in the system.

Additionally, label directions will include a statement that visibly soiled surfaces require pre-cleaning. The label statement will change from "For heavily soiled areas, a preliminary cleaning is required" to "For visibly soiled areas, a preliminary cleaning is required."

Refer to the CDC website (https://www.cdc.gov/coronavirus/2019-ncov/index.html) for additional information.

- Higher pH removes soils ordinary neutral disinfectants cannot.
- Mild lemon fragrance.
- EPA registered disinfectant.