Michigan State University



The Division of

Residential and Hospitality Services

Facility Action & Support Tactics

(FAST)

A supplemental

RHS Facility Management Resource Guide

in response to COVID 19

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# **Residential and Hospitality Services Facilities and COVID 19**

**COVID and the New Normal for RHS Facilities**

The novel coronavirus has changed the daily lives of millions of people, both within their homes and at the workplace. With the onslaught of COVID 19 a new normal has developed. Colleges and universities throughout the world have been directly impacted as online instruction has replaced in person led classes, current and future on campus events have been canceled. On campus student housing occupancy has been greatly reduced or eliminated as students have been mandated or chosen to return home to finish their semester course work. The short- and long-term impacts of this new normal has significantly altered fundamental operations at Michigan State University.

**RHS Facilities and COVID Impacts**

RHS maintains approximately 6.4 million gross square feet of space assigned within 64 buildings on the campus of Michigan State University. The portfolio includes several residence halls, apartments, multi-purpose buildings, a hotel and conference center, and other related support buildings. RHS is responsible for efficiently operating and maintaining the building systems of its assigned facility units as designed while at the same time maximizing the intended life of the assigned units. To meet expectations, RHS has implemented a facility management plan which includes strategies and tactics for preventative maintenance and custodial services within the RHS units.

RHS recognizes that the new normal has potentially created several areas of enhanced risk exposure along with the potential of negative outcomes becoming a reality. These risks and potential outcomes include:

* Health & life safety - not healthy or safe for future occupancy
* Compliance – no longer code complaint
* The reputation of RHS affected
* Loss of use – customer may be directly impacted once the unit is reopened
* Increased or additional costs to correct or replace the failed systems
* Unplanned emergencies or crises could occur as unplanned repairs are needed

In alignment with public health recommendations, the Michigan State University Division of Residential and Hospitality Services (RHS) is taking measures to prevent or reduce the community spread of COVID-19. The facility management plan for RHS has been updated and updated tactics are being implemented to ensure the health and safety of RHS team members and customers and residents. It is the division’s top priority to ensure that RHS facilities are safe, clean, and operate in an efficient manner while providing a healthy environment.

**Facility Action & Support Tactics (FAST)**

RHS is currently in the process of developing an overarching RHS COVID 19 response strategy which considers changing the delivery model of customer service, minimizes facility risks and impacts, modifies policies and procedures and includes other updates in response to Michigan State University expectations and guidelines and the State of Michigan or Federal mandates as needed.

From a facilities perspective, RHS has developed a **Facility Action Support Tactics (FAST)** resource and planning guide which establishes key strategic actions and tactics, processes and programs for properly maintaining their assigned portfolio of building while in low occupancy status and through the eventual time period when the units are returned to occupied status. The following action steps were deemed critical in the development of FAST:

1. **Identify key phases of occupancy and use of RHS units**
2. **Determine objectives and tactics and strategies within each phase**
3. **Identify action steps to achieve the objectives during each phase**
4. **Provide an action grid for the plan**
5. **Establish responsibilities**

FAST was developed by RHS in consultation with MSU Infrastructure Planning and Facilities (IPF), the RHS Planning and Projects (PPO) team, RHS Culinary Services (CLS), and Residence Education and Housing Services (REHS). The RHS FAST Development Work Team included:

Paul Manson, Associate Director- Planning and Preventative Maintenance, Planning and Projects Office

Tom Welburn, Associate Director of Facilities, REHS

Carolyn Knight, Project Coordinator, Culinary Services

Aaron Minnis, Service Manager, Facility Manager II, REHS

Michael T Gardner, Facility Manager II, REHS

Additional resources include recommendations from the Center for Disease Control (CDC), The American Institute of Architecture (AIA), APPA and other related associations.

**The Key Phases of Occupancy**

The following phases were determined to be critical and necessary to establish associated objectives, tactics and strategies within each phase as needing to be addressed:

Phase I: **Unit Closedown** – unit is moving from occupied/normal use to low occupancy or closed

Phase II: **Unit Closed**- unit has transitioned into low occupancy or closed status

Phase III: **Unit re-opening**- unit is placed back into normal use in a safe and healthy manner for the customers and workers

Phase IV: **Unit Operating**- unit is re-occupied and a facility management strategy is implemented with associated tactics to address the new normal as the unit are re-occupied

**FAST Objectives and Strategy & Tactics**

The plan was developed to address maintenance and custodial/housekeeping needs for RHS units throughout each phase. The following key objectives, strategies and tactics were identified as critical to safely operate the units during each phase:

* Meet all RHS Values
* Provide actions and tactics for the properly shutting down and re-opening building mechanical systems

* Incorporates key actions and tactics for facility maintenance and custodial activities and tactics needed to properly support and maintain the overall building operations during each phase
* Utilize a comprehensive building inspections program for space, mechanical systems, and safety systems
* Implement tactics necessary to properly prepare the units to be placed back in operation while ensuring that a healthy and safe environment is maintained for incoming customers
* Implement updated tactics to properly maintain the units once units are re-occupied
* Utilizes existing planned preventative maintenance work orders that currently exist within FAMIS (MSU’s maintenance work order system) during all phases

**FAST Action Steps**

The following steps were taken to achieve the objectives. The attached appendices include the various elements of the plan.

1. Identify various phases and timelines for RHS units
   1. Identify the use of RHS units during each phase
2. Identify various tactics to meet the objectives within each phase. Create a master action plan grid for FAST.
3. Identify specific tasks and frequency/schedule of performance for the tasks during each phase
4. Identify all major building systems, components, fixtures, and equipment ***(appendix a).*** 
   1. Identify specific water systems, fixtures, and equipment ***(appendix b).***
5. Meet RHS Legionella Water Management Support Plan expectations (supplemental)
6. Implement a comprehensive building inspection and building systems operational program reflecting the use and occupancy in RHS units during each phase
7. Determine what department is responsible for the performance each tactic and action
8. Create and implement a REHS closing and closed Unit strategy plan **(appendix c)**
9. Create a CLS unit closing unit tactics plan **(appendix d)**
10. Create a comprehensive RHS facility unit re-opening plan
    1. Utilize CDC recommendations for Colleges and Universities re-opening (**appendix e)**
    2. Develop a re-opening action plan for CLS **(appendix f)**
    3. Develop a re-opening plan for REHS mechanical systems **(appendix g)**
    4. Develop a unit-based modification plan for spaces
11. Develop custodial/housekeeping plan for REHS phase IV **(appendix h)**
12. Communicate the plan ***(TBD)***

**FAST Action Planning Grid:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Action Plan** | **Prior To Unit Closing** | **Phase One: Unit Closedown May** | **Phase Two: Units Closed May – July** | **Phase Three: Unit Re-opening August** | **Phase Four Units Operations August - Dec** |
| Critical Paths Completed | Critical paths updated weekly | Critical paths updated weekly | Critical paths updated weekly | Critical paths updated weekly |
| Major projects planned and initiated | Major projects initiated | Major projects on going | Major projects complete | **Review** |
| **RHS FAST plan verified & Implemented** | **IPF and CLS, REHS perform FAST closing plan** | **CLS, REHS and IPF perform FAST plan in closed units** | **CLS, REHS and IPF FAST perform re-opening plan.** | **IPF and CLS, REHS continue to perform FAST within closed and open halls** |
| Buildings identified as low occupancy | Buildings closed. Occupants consolidated. | Closed buildings maintained. Identify future open buildings | Identified closed buildings re-opened | Closed buildings identified. FAST continues. Open units implement updated SOP’s |
| Building systems identified | Building systems modified by IPF | Building systems operational schedules adjusted (as applicable). | Building systems placed back in operation | Building systems adjusted for fall and winter temperatures |
| Planned maintenance tasks modified and entered in work order system | Tasks completed and entered in work order system | Tasks completed and entered in work order system | Re-opening tasks completed for open units. Closed unit tasks continue | FAST tasks completed. Open units moved to normal operations in work order system. FAST tasks continue for closed units. |
| IPF CLS and REHS responsibilities verified | Responsibilities begin | Monthly meetings to review FAST | Final walk thru for re-opened units. Responsibilities updated. | Monthly meetings to review FAST for open and closed units |
| Planned building inspections entered work order system | Building inspections performed by REHS and IPF as scheduled | Building inspections performed by REHS and IPF as scheduled | Building inspections performed by REHS and IPF as scheduled | Building inspections performed by REHS and IPF as scheduled |
| REHS staff identified for FAST program |  |  | REHS staff returned to open unit if applicable | REHS may need to replace some FAST members if relocated |
| REHS and IPF trained to perform assigned duties and tasks | Training completed by REHS and IPF | Evaluate any additional training needs and celebrate successes | REHS and IPF perform SOP for opened units | Training completed by REHS and IPF if needed |
| Communication plans developed and implemented | Bi-Weekly communication completed and emailed | Bi-Weekly communication completed and emailed | Celebrate successes. | Bi-Weekly communication completed and emailed |
| Bi-weekly communication completed and emailed |

**FAST Responsibilities**

Once the tasks were established and updated, areas of responsibility were then assigned for IPF, REHS and CLS staff. FAST was developed to address the new normal created by COVID 19 impacts. The plan will need to be continually updated as phases are modified and new information is provided by the President of MSU, State of Michigan and/or the CDC.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **IPF Building Responsibilities** | **Trades** | **Close** | **Weekly** | **Bi-weekly** | **Monthly** | **Biannual** | **Annual** | **Re-start** |
| Water softener overrides to flush and loosen the media and exercise control valves | Plumbing | X | X |  |  |  |  | X |
| Exercise drains on the domestic side of the hot water heaters | Plumbing | X |  | X |  |  |  |  |
| Exercise primary plumbing valves | Plumbing | X |  | x |  |  |  |  |
| Operate safety showers as applicable | Plumbing | X | X |  |  |  |  |  |
| Restart all water distribution systems (softeners and hot water heaters) | Plumbing | X |  |  |  |  |  | X |
| Rooftop visual inspections (slate roofs) | Roofing |  |  |  | X (winter) |  | X |  |
| Rooftop visual inspections (non-slate roofs) | Roofing |  |  |  |  |  | X |  |
| Masonry Inspections | Roofing |  |  |  |  |  | X |  |
| Emergency Generators - 30 min run test | Electricians |  |  |  | X |  |  |  |
| Electrical Vault inspection | Electricians |  |  |  |  |  | X |  |
| Overhead Doors | Mechanical |  |  |  |  |  | X |  |
| Backflow preventers | Plumbing |  |  |  |  |  | X |  |
| Gas line inspections using meters (kitchen areas) | Mech |  |  |  |  |  | X |  |
| HVAC system performance check via monitor room | Mech |  |  |  |  |  | X |  |
| Compressors (visual and performance checks) | Mech |  | X |  |  |  |  |  |
| AC chillers (during season if operational) | Mech |  |  |  |  | X |  |  |
| Mechanical rooms - air dryers, steam, condensate return units) | Mech | X | X |  |  |  |  | X |
| AC chillers (during season if operational) | Mech |  |  |  | x |  |  |  |
| Cooling towers including PM tasks | Mech |  |  | X |  |  |  |  |
| Snow melt systems (visual and performance during season) | Mech | X | X |  |  |  |  | X |
| Heat pumps | Mech | X | x |  |  |  |  | X |
| Elevators (mandatory) inspections and performance checks | Mech |  | X |  |  |  |  |  |
| Boilers (where applicable) | Mech |  |  |  |  |  | X |  |
| General building walk thru - checking conditions in mech spaces | Mech |  |  |  | X |  |  |  |
| Pest control services as scheduled | Service | X | X | x | X |  |  |  |
|  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RHS Building Responsibility** | **DEPT** | **Close** | **Daily** | **Weekly** | **Bi-weekly** | **Monthly** | **Annual** | **Re-start** |
| Run dish machine - inspect for operation and leaks | CLS |  |  |  | X |  |  | X |
| Run laundry machines and check for water clarity and proper machine operation | REHS | X |  |  |  |  |  | X |
| Inspect main distribution lines and valves for leaks | REHS |  |  |  | X |  |  |  |
| Remove shower heads Run hot and cold-water top floor | REHS | X |  |  |  |  |  |  |
| Run hot and cold water from shower units on top floor | REHS |  |  |  | X |  |  |  |
| Remove aerators on lavatory fixtures and run hot and cold-water top floor | REHS | X |  |  | X |  |  |  |
| Run hot and cold water from lavatory fixtures top floor | REHS |  |  |  | X |  |  |  |
| Install hoses to custodial sinks to drain and run hot and cold water | REHS | X |  |  | X |  |  |  |
| Operate flush valves | REHS |  |  |  | X |  |  |  |
| Operate water coolers weekly. Post signage "Do not use". and install new filter. | REHS |  |  | X |  |  |  | X |
| Operate bottle fill stations weekly. Post signage to "Do Not Use". | REHS |  |  | X |  |  |  |  |
| Bottle fill stations: bypass the carbon filter and flush. Test chlorine residuals | REHS |  |  |  |  |  |  | X |
| Check PH levels building wide and water hardness | REHS | X |  |  |  | X |  | X |
| Operate O3 dispensing unit and perform quality check | REHS | X |  |  |  | X |  | X |
| Overhead Door - general | REHS |  |  |  | X |  |  |  |
| Dock Levelers | CLS |  |  |  |  | X |  |  |
| Fire Doors operation | REHS |  |  | X |  |  |  |  |
| Exterior doors operation | REHS |  |  | X |  |  |  |  |
| Exterior window and screens visual inspection | REHS |  |  | X |  |  |  |  |
| Emergency lights, pull stations, fire extinguishers, SPCC, Sprinkler kits, valves | REHS |  |  |  |  | X |  |  |
| Exit Signs | REHS |  |  |  |  | X |  |  |
| Fire Suppression systems | PPO |  |  |  |  |  | X |  |
| Fire Pumps (functional) | REHS |  |  | X |  |  | X |  |
| Fire Pumps performance check | PPO |  |  |  |  | X |  |  |
| Grease traps (empty and clean as needed)- monitor Grease Watch | CLS |  |  | X |  |  |  |  |
| Sanitary drain lines - water flow in drains all areas | REHS |  |  |  | X |  |  |  |
| Operate all water fixtures hot and cold water and flush for 5 minutes in Culinary Units | REHS |  |  |  | x |  |  |  |
| Sump pump visual and operational check | REHS |  |  |  | X |  |  |  |
| Gas check for odors in kitchen and laundry rooms) | REHS | X |  |  |  |  |  |  |
| HVAC filters (visual checks including damper check | REHS |  |  |  |  | X |  |  |
| HVAC belts visual inspection | REHS |  |  |  |  | X |  |  |
| HVAC exterior air intake visual inspection | REHS |  |  |  | X |  |  |  |
| Exterior window wells and laundry exhaust visual inspections | REHS |  |  |  | X |  |  |  |
| Mechanical room inspections visual (steam and water leaks, equipment, and lights) | REHS |  |  | X |  |  |  |  |
| Lighting checks (all areas) | REHS |  | X | X |  |  |  |  |
| General building walk thru - checking conditions | REHS |  | X | X |  |  |  |  |
| Elevators (operational and visual) | REHS |  |  | X |  |  |  |  |

# Appendix A: Building systems components and related equipment

**Building Systems and Components**

• Heating/Ventilation/air conditioning

• Plumbing fixtures and systems

* Building envelope-roofing and masonry
* Electrical including lighting
* Life Safety systems
* Elevators
* Doors and windows
* Pumps
* Exterior grease interceptors
* Interior spaces

**Related Equipment**

• Laundry machines

• Dish machines

• Custodial equipment





# Appendix B: RHS Water Systems, Fixtures and Equipment Master List

RHS Water Systems

1. Hot water heaters
2. Water softening systems
3. Piping and distribution for hot and cold water

RHS Fixtures and Equipment

1. Student room – shower heads, toilets, sinks, faucets
2. Custodial closets, compactor rooms, trash rooms, recycle areas
3. Break rooms and locker rooms – shower, toilets, sinks, faucets
4. Community kitchens and kitchenettes- sinks and bottle fill stations
5. Community and public bathrooms, other out of use restrooms- sinks, faucets, toilets, showers
6. Dining units including Sparty Stores- all fixtures and equipment
7. All kitchen equipment supplied with water – tip kettles and skillets, pots and pan areas, dish machines, large spray down hoses, ice machines (if not out of service)
8. Cleaning dispensing systems and units
9. Laundry rooms including supply lines to washers
10. All water filter systems including coffee makers and large pre-filters to bottle fill and drinking fountains
11. Drinking fountains
12. Mechanical room hoses and other miscellaneous supply lines

Appendix C: REHS Operational Plan for Closing and Maintaining Closed Units (Phase I & II)

**REHS Unit planned maintenance tactics and actions for shutting down units**

**Action Plan Goal: Prepare buildings for low occupancy or closed status**

**Inspections and water plan action items will be performed by the REHS facility inspection team based upon the schedule**

Mechanical Systems

* HVAC
  + Air Handling Units
    - Modify and adjust HVAC system operational operating hours to reflect needs (monitor room)
      * Schedule internal cleaning of exhaust and laundry HVAC systems
      * Clean all return air passive ducts
      * Clean all outdoor air intakes
      * Change filters and belts per established schedule
  + Outdoor large Chillers and cooling towers
    - IPF to maintenance all large chiller systems
  + Split Systems
    - REHS units to clean and change filters as applicable
    - Performance check units
  + Window Units
    - Clean units
    - Clean or replace filters
    - Check operational performance
* Sanitary drains
  + - Schedule PM of large and smaller branch piping
    - Run water into all sanitary drains routinely in closed units by REHS
    - Work with CLS on comprehensive grease trap cleaning
* Refrigeration (CLS manages- REHS to check to make sure tasks completed)
  + Determine which refrigeration and freezer units will be shut down (small and large)
    - Prepare a preventative maintenance plan for both large and small units
    - Verify with IPF and REHS that PM work has been completed
    - Deep clean units and thaw using approved methods
    - Ensure that heat tape is disconnected for shut down units
* Gas
* Check all gas connections including operation of shut off valves in laundry rooms
* Have IPF perform PM “leak” tests as part of planned maintenance program laundry room
* Steam
* Have PM tasks performed for steam traps
* Steam trap testing performed by IPF
* Water distribution
  + Run hot and cold water through fixtures as part of inspections program
  + Visually inspect for leaks
  + Follow the RHS Water plan to prevent legionella
  + Exercise primary large valves on schedule basis
* Water softeners
  + Adjust automatic controls to reflect summer/low occupancy
  + Run softeners on a scheduled basis to keep mineral beds in good shape
* Hot Water heaters
  + Exercise drains
  + Visual inspection of temperature
  + Adjust temperature as needed for summer
* Electrical
* Visually inspect all electrical connections on all equipment for wear, cracks, and broken plugs
* Visually inspect all electrical outlets and distribution boxes
  + Loose boxes, outlet covers not secured, distribution boxes not labeled, boxes blocked by equipment, etc.
* Include inspection of electrical connections within freezers and refrigerators
* Elevators
  + Check operation of all elevators on regular basis
  + PM performed as scheduled by IPF
  + Check all lights
* Equipment
* Performance check on all equipment
* All equipment deep cleaned
* PM performed by vendor or REHS
* Check operational performance
* Secure all equipment if applicable
* Fire Systems
* Verify schedule and confirm fire systems inspections with RHS PPO/Health and Safety Team
* Visually inspect all areas of kitchen for potential safety issues/hazards

Preparing Areas:

* Public Space and Student Rooms
  + Tier 1 cleaning of all public space including student rooms
  + Tier 1 maintenance of student rooms
  + Tier 2 projects implemented as approved
  + Inspect condition of all furnishings
* Perform safety check on electrical outlets, cords
* All Areas
  + Schedule inspections performed
  + Deep clean all furniture fixtures and equipment and carpeting
  + Perform a general inspection of areas and update list of necessary repairs
    - General inspection of all doors within unit
    - General inspections of lights, ceiling tiles, hinges, walls, flooring, fans, etc.

The REHS FAST plan requires that a series of comprehensive building inspections occur in all units on a scheduled basis once the units are closed. The REHS Inspection team will implement and perform all expectations withing the RHS Prevention of Legionella Water Plan. (Supplemental Plan).

**THE REHS Inspection Team (Phase II)**

REHS desires the following qualifications for the team:

* Experienced and knowledge in working with various building systems which typically reside in residence halls and apartment units
* Able to detect, diagnose and demonstrate accepted facility common practices in identifying and addressing critical or emergent building issues
* Able to work autonomously
* Ability to address or perform minor repairs on building systems and components as trained within the job classification
* Familiarity with RHS building system locations, spaces, & fixtures and equipment. Locations may include:
  + Residence Halls
  + Apartments
  + Auxiliary buildings (Chapel, Union, etc.)
  + Culinary and retail units
  + Spartan Linen Services
  + MSU Bakers/Food Stores
  + RHS Information Services

**FAST Operational Recommendations**

* Each unit is inspected daily using the checklist. Seven days per week for daily inspections
* (5) Zone assignments
  + South – Wilson, Wonders, Case, Holden
  + East modified– Holmes, Hubbard, Akers, McDonel
  + River Trail modified and Support Units: Shaw, Owen, Snyder Phillips, RHS IS, Food Stores
  + North-Williams, Campbell, Mayo, Landon, Mason Abbot
  + Brody and Linen Services
* Team Members and Schedule
  + Two people per zone- Monday – Friday- (5 teams) 10 Team Members
  + Two people per team- Saturday – Sunday- (2 Teams) 4 Team Members
* Administrative Support
  + Two APSA
  + 1 Administrative Support

Time Allotments: 2 hours for daily inspections per zone; 5 hours per hall for weekly task inspections

Total Estimate REHS Costs: Approximately $19,000 per week (12 weeks May – July): **$228,000\***

***\*IPF funding is not included in the above total.***

Appendix D: Culinary Services Tactics for Closing Units (Phase I)

**Dining Unit planned maintenance tactics and actions for shutting down dining units**

**Action Plan Goal: Prepare buildings for low occupancy or closed status**

**Inspections and water plan action items will be performed by the REHS facility inspection team based upon the schedule**

* Food
  + Prepare for removal/relocation of food/inventory control
  + Cleaning of all food preparation areas including storage rooms
* Mechanical Systems
  + HVAC
    - Modify and adjust HVAC system operational operating hours to reflect needs
    - HVAC hoods:
      * Turn systems off, air handlers for cleaning left on
      * Schedule internal cleaning of HVAC systems
      * Clean all return air passive ducts
      * Clean hood and filer systems utilizing in house teams

Sanitary drains

* + - Schedule PM of large and smaller branch piping
    - Run water routinely in closed units during down time or verify with REHS that weekly building inspections and water task are being completed
* Refrigeration
  + Determine which refrigeration and freezer units will be shut down (small and large)
    - Prepare a preventative maintenance plan for both large and small units
    - Verify with IPF and REHS that PM work has been completed
    - Deep clean units and thaw using approved methods
    - Ensure that heat tape is disconnected for shut down units
* Gas
* Check all gas connections including operation of shut off valves
* Have IPF perform PM “leak” tests as scheduled as part of planned maintenance program
* Steam
* Have PM performed and steam supply checked on all equipment which use steam – vendor or REHS
* Visual inspection of all connections as applicable
* Electrical
* Visually inspect all electrical connections on all equipment for wear, cracks, and broken plugs
* Visually inspect all electrical outlets and distribution boxes
  + Loose boxes, outlet covers not secured, distribution boxes not labeled, boxes blocked by equipment, etc.
* Include inspection of electrical connections within freezers and refrigerators
* Verify and ensure that “heat” tape is disconnected on closed refrigeration systems
* Equipment
* All equipment deep cleaned
* PM performed by vendor or REHS
* Check operational performance
* Secure all equipment if applicable
* Fire Systems
* Verify schedule and confirm fire systems inspections with RHS PPO/Health and Safety Team
* Visually inspect all areas of kitchen for potential safety issues/hazards

Preparing Areas:

* Dish rooms and Dish machines
  + Coordinate with vendors on PM service over the summer
    - * Ecolab and Hobart
  + Deep clean dish machine per manufacturer recommendation using in house team
* Deep clean pots and pans areas and all other associated areas within the dish room areas
  + Clean and store all small equipment including all dishes, small wares, pans, etc.
  + Inspect entire dish room including dish machine
  + Inspect entire dish room including dish machine
    - * Create list of necessary repairs and PM items to be completed
      * Lights, ceiling tiles, windows, doors, hinges, flooring, fans, etc.
* Perform safety check on electrical outlets, cords
* All Areas
  + Deep clean all furniture fixtures and equipment
  + Perform a general inspection of areas and update list of necessary repairs
    - Rips on seats or tables that are not level
    - Corner guards checked
    - General inspection of all doors within unit
    - General inspections of lights, ceiling tiles, hinges, walls, flooring, fans, etc.

Appendix E: CDC Guidelines for Re-opening Colleges (Phase III & IV)

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[](https://www.insidehighered.com/sites/default/server_files/media/iStock-458608835.jpg)

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**The Centers for Disease Control and Prevention issued new guidance on May 21,2020 for colleges as they reopen their campuses. (Below is modified version of the guidelines)**

Colleges will be looking to the CDC as many prepare to welcome back students, 19.9 million of whom were enrolled at U.S. colleges last fall. While the guidance does not address when or whether colleges should resume in-person classes, it describes practices colleges can put in place to reduce coronavirus spread and promote a healthy student body and workforce. It also outlines steps they should take to address suspected COVID-19 cases on their campuses.

Top of Form

The CDC guidance notes that institutions of higher education “vary considerably in geographic location, size, and structure. As such, IHE officials can determine, in collaboration with state and local health officials, whether and how to implement these considerations while adjusting to meet the unique needs and circumstances of the IHE and local community. Implementation should be guided by what is “feasible, practical, acceptable, and tailored to the needs of each community.”

**Consider how to Maintain Healthy Environments and Operations**

Consider strategies which creates a healthy environment for occupants, customers, and employees:

**Cleaning and Disinfection**

* + Clean and disinfect highly/frequently touched surfaces daily (e.g., door handles, sink handles, drinking fountains, grab bars, hand railings, bathroom stalls, dining hall tables) or between use as much as possible.
  + Develop a schedule for increased, routine cleaning and disinfection.
  + Ensure [safe and correct use](https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html) and storage of [cleaners and disinfectants](https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2)
    - Use products that meet [EPA disinfection criteria](https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2) or are on the EPA N List of disinfectants that are recommended

**Shared Objects and Personal Objects**

* + Encourage students, faculty, and staff to use disinfectant wipes to wipe down shared desks and tables and other shared objects and surfaces before use.
  + Discourage sharing of items especially those that are difficult to [clean or disinfect.](https://www.cdc.gov/coronavirus/2019-ncov/community/clean-disinfect/index.html)
  + Avoid sharing electronic devices, books, pens, and other learning aids.
  + Encourage students, faculty, and staff to keep their personal items (e.g., cell phones, other electronics) and personal work and living spaces clean.

**Ventilation**

* + Ensure ventilation systems operate properly and increase circulation of outdoor air as much as possible
  + Adjust HVAC schedules to bring in more outside air as much as possible

**Water Systems**

* + To minimize the risk of [Legionnaires’ disease](https://www.cdc.gov/legionella/about/index.html) and other diseases associated with water, create a water plan that includes steps which ensure that all water systems and fixtures are safe to use after a prolonged facility shutdown.

**Modified Layouts**

* + Space seating/desks at least 6 feet apart when feasible. For lecture halls, consider taping off seats and rows to ensure six-foot distance between seats.
  + Host smaller classes in larger rooms.
  + Offer distance learning in addition to in-person classes to help reduce the number of in-person attendees.

**Physical Barriers and Guides**

* + Install physical barriers, such as sneeze guards and partitions, particularly in areas where it is difficult for individuals to remain at least 6 feet apart (e.g., cash registers).
  + Add physical barriers, such as plastic flexible screens, between bathroom sinks and between beds especially when they cannot be at least 6 feet apart.
  + Provide physical guides, such as tape on floors or sidewalks and signs on walls to ensure that individuals remain at least 6 feet apart in lines and at other times.

**Communal Spaces**

* + Close shared spaces such as dining halls, game rooms, exercise rooms, and lounges if possibly
  + Or, stagger use and restrict the number of people allowed in at one time
  + Ensure everyone can stay at least 6 feet apart
  + Clean and disinfect between use

#### **Community kitchens, laundry rooms, and community bathrooms**

* Access should be available, but the number of people should be restricted so that everyone can stay at least 6 feet apart from one another.
* Do not share dishes, drinking glasses, cups, or eating utensils.
* Non-disposable food service items used should be handled with gloves and washed with dish soap and hot water or in a dishwasher.
* [Guidelines for doing laundry](https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html) such as washing instructions and handling of dirty laundry should be posted.
* Sinks could be an infection source and should avoid placing toothbrushes directly on counter surfaces.
* Totes can be used for personal items to avoid touching the bathroom countertop.

**Food Service**

* + Provide grab-and-go options for meals.
  + Use disposable food service items (e.g., utensils, dishes).
  + People who are sick, their roommates, and those who have higher risk of severe illness from COVID-19 should eat in their room if possible.
  + If food is offered at any event, have pre-packaged boxes or bags for each attendee instead of a buffet or family-style meal.
  + Avoid sharing food and utensils

**Consider strategies for colleges to promote behaviors that reduce spread of the virus, including:**

**Self-Isolation**

* encouraging self-isolation of students, faculty or staff who are sick or have had exposure to the virus

**Healthy Hygiene**

* + Promote good hand hygiene
  + Reinforce handwashing with soap and water for at least 20 seconds.
  + If soap and water are not readily available, hand sanitizer that contains at least 60% alcohol can be used
  + Encourage students, faculty, and staff to cover coughs and sneezes with a tissue or use the inside of your elbow. Used tissues should be thrown in the trash and hands washed immediately with soap and water for at least 20 seconds.

**Cloth Face Coverings**

* Recommend and reinforce use of cloth face coverings among students, faculty, and staff. Face coverings should be worn as feasible and are **most** essential in times when physical distancing is difficult. Individuals should be frequently reminded not to touch the face covering and to wash their hands frequently.
* Information should be provided to all students, faculty, and staff on proper use, removal and washing of cloth face coverings.

**Protections for Students, Faculty, and Staff at Higher Risk for Severe Illness from COVID-19**

* + Offer options for faculty and staff at higher risk for sever illness including older adults and people of all ages with certain underlying medical conditions) that limit their exposure risk (e.g., telework and modified job responsibilities).
  + Offer options for students at higher risk for severe illness that limit their exposure risk (e.g. virtual learning opportunities).
  + Consistent with applicable law, put in place policies to protect the privacy of people at higher risk for severe illness underlying medical conditions in compliance with applicable federal and state privacy and confidentiality laws.

**Other Considerations:**

**Regulatory Awareness**

* + Be aware of state or local regulatory agency policies related to group gatherings to determine if events can be held.

**Gatherings**

* + Pursue virtual group events, gatherings, or meetings, if possible, and promote social distancing of at least 6 feet between people if events are held. Limit group size to the extent possible.
  + Pursue options to convene sporting events and participate in sports activities in ways that reduce the risk of transmission of COVID-19 to players, families, coaches, and communities.
  + Limit any nonessential visitors, volunteers, and activities involving external groups or organizations as possible – especially with individuals who are not from the local geographic area (e.g., community, town, city, or county).

**Telework and Virtual Meetings**

* + Encourage telework for as many faculty and staff as possible, especially employees at [higher risk for severe illness from COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html).
  + Replace in-person meetings with video- or tele-conference calls whenever possible.
  + Provide student support services virtually, as feasible.
  + When possible, use flexible work or learning sites (e.g., telework, virtual learning) and flexible work or learning hours (e.g., staggered shifts or classes) to help establish policies and practices for social distancing (maintaining distance of approximately 6 feet) between people, especially if social distancing is recommended by state and local health authorities.

**Travel and Transit**

* + Consider options for limiting non-essential travel in accordance with state and local regulations and guidance.
  + Encourage students, faculty and staff who use mass transit to consider using other transportation options (e.g., walking, biking, driving, or riding by car- alone or with household members only) if feasible.

**Designated COVID-19 Point of Contact**

* + Designate an administrator or office to be responsible for responding to COVID-19 concerns. All IHE students, faculty and staff should know who this person is and how to contact them.

**Participation in Community Response Efforts**

* + Consider participating with state or local authorities in broader COVID-19 community response efforts (e.g., sitting on community response committees).

**Communication Systems**

* + Put systems in place for:
    - Consistent with applicable law and privacy policies, having students, faculty and staff report to the IHE if they have [symptoms](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) of COVID-19, a positive test for COVID-19, or were exposed to someone with COVID-19 within the last 14 days in accordance with [health information sharing regulations for COVID-19 external icon](https://www.hhs.gov/hipaa/for-professionals/special-topics/hipaa-covid19/index.html)(e.g. see “Notify Health Officials and Close Contacts” in the **Preparing for When Someone Gets Sick**section below), and other applicable federal and state privacy and confidentiality laws, such as the Family Educational Rights and Privacy Act (FERPA).
    - Notifying faculty, staff, students, families, and the public of IHE closures and any restrictions in place to limit COVID-19 exposure (e.g., limited hours of operation).

**Leave (Time Off) and Excused Absence Policies**

* + Implement flexible sick leave policies and practices that enable faculty, staff, and students to stay home or self-isolate when they are sick, have been exposed, or [caring for someone who is sick](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/care-for-someone.html).
    - Examine and revise policies for excused absences and virtual learning (students) and leave, telework, and employee compensation (employees).
    - Leave and excused absence policies should be flexible, not be punitive to people for taking time off and should allow sick employees and students to stay home and away from others. Leave and excused absence policies should also account for employees and students who need to stay home with their children if there are school or childcare closures, or to care for sick family members.
  + Develop policies for returning to classes and IHE facilities after COVID-19 illness. CDC’s criteria to [discontinue home isolation](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html) and [quarantine](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine-isolation.html) can inform these policies.

**Back-Up Staffing Plan**

* + Monitor absenteeism of employees and students, cross-train staff, and create a roster of trained back-up staff.

**Staff Training**

* + Train staff on all safety protocols
  + Conduct training virtually or ensure that [social distancing](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html) is maintained during training.

**Recognize Signs and Symptoms**

* + If feasible, conduct daily health checks or ask faculty, staff, and students to conduct self-checks (e.g., temperature screening and/or [symptom checking](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html)).
  + Health checks should be done safely and respectfully, and in accordance with any applicable federal or state privacy and confidentiality laws and regulations. IHE administrators may use examples of screening methods found in CDC’s [General Business FAQs](https://www.cdc.gov/coronavirus/2019-ncov/community/general-business-faq.html).

**Support Coping and Resilience**

* + Encourage employees and students to take breaks from watching, reading, or listening to news stories, including social media if they are feeling overwhelmed or distressed.
  + Promote employees and students eating healthy, exercising, getting sleep, and finding time to unwind.
  + Encourage employees and students to talk with people they trust about their concerns and how they are feeling.
  + Consider posting signages for the national distress hotline: 1-800-985-5990, or text TalkWithUs to 66746

Appendix F: Culinary Services Tactics for Phase III & Phase IV (Re-open Plan)

**Dining halls and Retail operations tactics for full re-opening phase**

The RHS Culinary Re-open plan in detail and includes facility tactics is located:

V:\Administrative Records\Projects\PPO\Preventative Maintenance\FAST\3.0 RHS Culinary Services Re-Open Plan June 2, 2020 (003).docx

**Tactics for Culinary Services -Dining units**

* Equipment
  + Verify that preventative maintenance task has been completed by REHS PM team
  + All equipment, cleaned, surfaces wiped down
  + All gas to equipment turned back on pilots lit by IPF
  + Plug in all small equipment and put in place, visually inspect
  + Check operational performance of all equipment
  + Set dining room equipment as needed
  + NUCO2 Tank fill level checked
  + Turn on pop system and check for taste and CO2

* HVAC
  + In advance provide new HVAC operational times to facility manager
    - prep work phase
    - Operational hours once unit is open
  + Visually inspect grease filters and make sure they are properly installed and installed in the correct hood system
* Refrigeration
  + All large and small refrigeration systems are turned back on and temperatures are accurate and in proper working conditions
* Sanitary drains
  + Flush and run hot and cold water down all drains for five minutes
  + Visually inspect to make sure that water drains at proper rate
* Water fixtures
  + Run all water fixtures including drinking fountains for five minutes running hot and cold water through them if applicable
  + Inspect fixtures for leaks
* Fire systems/Safety
  + Verify that the RHS Health and Safety walk thru has been completed and deficiencies have been completed
  + Verify if sanitation inspections have been completed and deficiencies completed
  + Visually inspect all areas of operation for any potential safety issues/hazards
  + Visually inspect electrical panels and make sure the equipment is not blocking access, panels are labeled and properly close
* Chemical Dispensers and custodial closets
  + Verify that vendors (Ecolab) have perform PM work during closed period including verification of chemical dispenser operation on dish machine
  + Verify and inspect custodial closet
    - Cleanliness, proper equipment is in place
* Food
  + Verify dates and freshness of any food that may have been left at close down
  + Check with other operations on their excess inventories before purchasing new
  + Order and stock areas
  + Coke machines back on and product run to get anything in the lines out
    - Taste and CO2 is proper
* Signage
  + Visually inspect operation for old signs, menu sheets etc. and remove
  + Ensure all safety signage is up and visible to employees
  + Print proper menu item signs
  + Print any needed wayfinding signs
* POS stations
* Plug in and test before first service
* Dining Room
  + Visually inspect dining room
    - Tables and chairs in place
    - Napkins and salt and pepper in place (if still applicable)
    - Visually inspect walls, windows, doors, ceilings
    - Check all temperatures stations – chart the temperatures
      * (on walls)
* Restroom and locker rooms
  + Visually inspect for cleanliness
  + Flush toilets and run hot water for five minutes
  + Operate hand dryer
  + Check supplies
* Back Dock
  + Visually inspect for cleanliness
  + Inspect SPCC area and restock as needed
  + Operate back dock overhead door
  + Inspect elevator for cleanliness and proper operation
  + Check that material handling carts are clean, organized and stored properly
  + Inspect the level on NUCOR2 unit
  + Inspect exterior dock leveler
  + Inspect dock for cleanliness

|  |  |  |
| --- | --- | --- |
| **Category** | **Culinary Services Re-Opening Building Responsibilities** | **CLS** |
| Equipment | Operate all food service equipment (small & large, pop, etc.) | X |
| Equipment | Operate ice machines and verify quality of ice | X |
| Equipment | Operate dish machine - verify performance | X |
| Equipment | Operate all custodial equipment and chemical dispensers | X |
| Equipment | Operate all POS systems | X |
| HVAC | Exhaust system (operational and hood filters inspections) | X |
| Maint | Dock Levelers (performance check) | X |
| Maint | Safety inspection walk thru all areas | X |
| Plumbing | Flush all water fixtures (8 minutes) hot and cold (water management plan) | X |
| Plumbing | Check all plumbing fixtures for performance and leaks | X |
| Plumbing | Secondary sanitary drain lines - water flow in floor and fixtures (pop lines, etc.) | X |
| Plumbing | Grease traps (empty and clean as needed)- monitor Grease Watch | X |
| Refrigeration | Temperature and operational check of all large and small refrigerators and freezers | X |
| Safety | SPCC kits | X |
| Safety | Social distancing markers | X |
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Appendix G: REHS Hall Facility Re-Opening Plans (Phase III & IV)

**Facility Tactics for Residence Hall for full re-opening**

**Supplies and Equipment**

* **Custodial equipment** 
  + Verify that preventative maintenance task has been completed by REHS PM team on all equipment
  + All equipment is clean and in good condition
  + Plug in all equipment, small and large, and check operational performance. Visually inspect for repairs and have all repairs completed prior to re-opening
  + Place equipment in proper storage areas
* **Custodial supplies**
  + Perform a physical inventory of all supplies and equipment and provide to accountant
    - Utilize inventory to project par stock needs
  + Order in advance to allow time for delivery prior to unit opening
    - Order/Re-stock supplies for custodial cleaning including items such as vacuum bags, filters, micro-fiber clothes and other small supplies
    - Order/Re-stock items such as paper goods, trash and recycle bags, cleaning chemicals and supplies, O3 cartridges for SAO/Lotus units
    - Order all emergency supplies and materials for cleanup
  + Re-stock all PPE and ensure that all PPE meets requirements, clean all PPE using proper methods
  + If O3 units has a pre-water filter installed, replace filter as needed
  + Verify that all labels are on spray bottles are approved labels and legible
  + Remove all non-compliant/non-operating spray bottles
  + Re-stock all emergency buckets
  + Clean and organize all custodial supply closets and main storage areas. Remove all summer supplies to summer supply storage area
  + Individual work groups should re-stock their custodial closets
* **Maintenance Supplies and Equipment**
  + Summer Supplies
    - Perform a physical inventory of all supplies and equipment and provide to accountant
    - Utilize summer inventory to project par stock needs
    - Store all excess summer supplies into storage
    - Check that all summer equipment is in good repair and operational
    - Store all summer small maintenance equipment
  + Academic Year Supplies
    - Perform a physical inventory of all supplies and equipment within maintenance shops
    - Order academic year maintenance supplies in advance to allow time for delivery prior to unit opening
  + Organize maintenance shop and locate all supplies and materials and equipment into proper location
  + Test all equipment for proper performance
  + Re-stock necessary PPE as needed and remove any non-compliant PPE

**Building Systems and Equipment**

* HVAC
  + Facility Manager to update all HVAC schedules with IPF
  + Visually inspect all HVAC systems including belts and filters
  + Check damper operations as applicable
  + Visually inspect all outside air intakes and make sure they are unobstructed
  + Visually all return air vents for cleanliness and are unobstructed
  + Visually inspect all laundry exhaust units and make sure that the lint media filter system is operating, and media is clean
  + Visually inspect exterior laundry exhaust areas as applicable
  + Check system operational performance including checking temperatures
  + IPF to have performed PM on all chillers. IPF to make sure that chillers are operating and performing properly
* Refrigeration
  + Verify with Culinary partners that all large and small refrigeration systems are turned back on and temperatures are accurate and in proper working conditions
* Sanitary drains – secondary and main drains
  + IPF to have performed PM on all main drains and secondary drains prior to opening
  + Flush and run hot and cold water down all drains for five minutes
  + Visually inspect to make sure that water drains at proper rate
* Water (follow RHS water management plan strategy)
  + Run hot and cold water in all water fixtures for 8 minutes and check for fixture leaks
    - Restrooms-Flush valves, faucets, and showers
    - Compactor rooms and custodial areas and closets
    - Community kitchens and kitchenettes
    - Drinking fountains and bottle fill stations for five minutes running hot and cold water through them if applicable
    - Have IPF perform PH and chlorine tests on drinking fountains
  + Replace all water filters and re-install filters
  + Visual checks of water in all areas of unit
* Water Softeners
  + IPF to re-set all meters and re-start all softeners to provide proper operational performance based on occupancy
  + Brine tank is filled with salt and producing
  + Perform daily checks of hardness
* Fire systems and Building Safety
  + Verify that the RHS Health and Safety summer walk thru has been completed and deficiencies have been completed
    - Fire pumps operational and meet all requirements
    - Fire suppression systems meet all requirements
    - Exit signs are operational and properly illuminated
    - Emergency lights are operational
    - Emergency generator is operational and performance checks completed
  + Verify that all smoke detectors have been tested prior to occupancy and deficiencies completed
  + Visually inspect all areas of operation for any potential safety issues/hazards
  + Visually inspect all fire extinguishers and verify per RHS requirements
  + Visually inspect electrical panels and make sure the equipment is not blocking access, panels are labeled and properly close
  + Visually inspect main electrical vault- make sure access door is secure
  + Test all interior and exterior door access units for proper operation
  + Inspect all gas lines in laundry room and make sure there are no leaks
* Chemical Dispensers, O3 SAO units and custodial closets
  + Verify that all PM work was completed during closed period including verification of unit operation
  + Verify and inspect custodial closets
    - Cleanliness, proper equipment is in place
* Way finding and room signage
  + Visually inspect operation for outdated signs and remove
  + Ensure all way finding and safety signage is up and visible to employees and customers
  + Print any needed wayfinding signs and install as needed
  + Check all room signs and replace (this has a May deadline for inspecting and ordering replacements)
  + Install all COVID related signs as provided
* Lighting
* Check and replace lighting as need interior and exterior lights
* Study Lounges, Lobbies, Corridors Reception Areas, Common Spaces and Classrooms
  + - Visually inspect all areas for cleanliness and proper set up
    - Tables and seating in place
    - Visually inspect walls, windows, doors, ceiling area, and blinds
    - Replace batteries in all clocks and set time to current time
    - Check all temperatures stations (if applicable) – chart the temperatures
* Restroom and locker rooms
  + Visually inspect for cleanliness
  + Flush toilets and run hot water for five minutes
  + Operate hand dryer
  + Check and re-stock all supplies
* Back Dock
  + Visually inspect for cleanliness inside dock and outdoor receiving area
  + Operate back dock overhead door
  + Inspect freight elevator for cleanliness and proper operation
  + Check that material handling carts are clean, organized and stored properly
  + Inspect exterior dock leveler
  + Inspect dock for cleanliness
* Exterior and Interior Doors
  + Inspect for cleanliness and proper operation including proper latching
* Windows
  + Inspect for cleanliness
  + Inspect for cracks and broken glass
  + Inspect for air leakage or pest infiltration points
  + Proper operation including proper opening and closing and latching
  + Screens are intact and not torn
* Pumps
  + Compressors and Condensate returns
    - Inspect for cleanliness and operational performance
    - Check oil or water levels as applicable
  + Sump pumps
    - Inspect for cleanliness
    - Operational performance including pouring water into sump area
    - Inspect wiring for potential hazards
* Mechanical and Storage Rooms and hazardous material collection areas
  + Inspect for cleanliness and organization
  + Re-locate supplies and materials to correct storage locations
  + Secure and have hazardous materials picked up properly and disposed
  + Check of pest infestations in all locations
* Elevators
  + Inspect for cleanliness and conditions
  + Inspect for proper signage
  + Lights are operational, check all push buttons, check floor, ceilings, and walls
* Safety Showers and eye wash stations
  + Check for proper operation with IPF

**Facility Re-opening responsibilities for IPF and REHS**

|  |  |  |
| --- | --- | --- |
| **Category** | **IPF Re-opening Responsibilities** | **IPF** |
| Elevators | Elevators (mandatory) inspections and performance checks | X |
| HVAC | AC chillers (during season if operational) performance checks | X |
| HVAC | Cooling towers including PM task compliance | X |
| HVAC | Boilers (non-Spartan Village) | X |
| Plumbing | Water softener start up | X |
| Plumbing | Domestic hot water heaters | X |
| Plumbing | Exercise primary plumbing valves | X |
| Plumbing | Safety Shower operational checks | X |
| Plumbing | Backflow preventers (verify compliance) | X |
| Plumbing | Main sanitary drain lines (operational check) verify PM tasks | X |
| Plumbing | Bottle fill stations: bypass the carbon filter and flush. Test chlorine residuals | X |
| Pumps | Snow melt systems (visual and performance during season) | X |
| Pumps | Compressors and pumps (visual and performance checks) | X |
| Safety | Emergency Generators - 30 min run test | X |
| Safety | Gas line inspections using meters (kitchen areas) | X |

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| --- | --- | --- |
| **Category** | **REHS Re-opening Building Responsibilities** | **REHS** |
| Equipment | Operate laundry machines (performance). Flush machines for ten minutes | X |
| Equipment | Operate all custodial equipment and chemical dispensers | X |
| HVAC | HVAC systems schedule and operational checks | X |
| HVAC | HVAC belts and filters visual inspection (include damper operational check) | X |
| HVAC | HVAC exterior air intake visual inspection | X |
| HVAC | Boilers (Spartan Village) | X |
| Maint | Interior windows operational and safety check | X |
| Maint | Exterior window and screens visual inspection | X |
| Maint | Interior fire doors operational check | X |
| Maint | Exterior front entrances visual inspection (concrete, cleanliness, landscaping) | X |
| Maint | Overhead Doors- performance | X |
| Maint | Exterior entrance doors operational check | X |
| Maint | Exterior parking lot visual inspection | X |
| Maint | Way finding and all other signage inspection (exterior and interior) | X |
| Maint | Safety inspection walk thru all areas | X |
| Maint | Operate O3 dispensing unit and perform quality check | X |
| Maint | General building walk thru - checking conditions in mech spaces | X |
| Maint | Pest control verify inspections and visual check for pests | X |
| Maint | Exterior window wells and laundry exhaust visual inspections | X |
| Maint | Mech room inspections visual (steam and water leaks, equipment, and lights) | X |
| Maint | Lighting checks (all areas) | X |
| Maint | General building walk thru - checking conditions (public areas, storage, etc.) | X |
| Maint | Student room final inspections | X |
| Plumbing | Water Softener brine tank fill | X |
| Plumbing | Inspect main distribution lines and valves in mech spaces for leaks | X |
| Plumbing | Flush all water fixtures (8 minutes) hot and cold (water management plan) | X |
| Plumbing | Check all plumbing fixtures for performance and leaks | X |
| Plumbing | Replace water filters on ice machines, drink stations, bottle fill, etc. | X |
| Plumbing | Check PH levels building wide and water hardness | X |
| Plumbing | Secondary sanitary drain lines - water flow in drains all areas | X |
| Pumps | Heat pumps (if operational) | X |
| Pumps | Sump pump visual and operational check | X |
| Safety | Gas Line connections (Laundry rooms) | X |
| Safety | Emergency lights, pull stations, fire extinguishers, Sprinkler kits, valves | X |
| Safety | Exit Signs | X |
| Safety | Fire Suppression systems | X |
| Safety | Fire Pumps (functional) | X |
| Safety | Test all door access in building | X |
| Safety | Social distancing markers | X |

Appendix H: REHS Residence Hall Cleaning Tactics during Phase IV

**Facility Tactics for Residence Hall cleaning for full re-opening**

**Residence Halls with Community and Public Restroom cleaning plan for Fall 2020**

**Action Plan Goal: Prepare units for occupancy. Implement cleaning, sanitizing and disinfecting procedures while occupied**

**Assumptions**

1. Residents will be living in community style residence halls 2 people per room based upon housing assignment processes based on social distancing expectations
2. Residents will be living in suite style residence halls 2 people per room and 4 people per suite sharing a bathroom.
3. Suite bathrooms cleaning is TBD.
4. Occupancy per room may be modified/reduced (TBD) by the RHS- Current plan is have 200 isolation rooms available system wide
5. Bookings, events in community spaces may be reduced or limited.
6. Occupancy in classrooms may be reduced by MSU. Social distancing of furnishings will occur (TBD) by RHS in near future.
7. Brody, Landon, Owen, Shaw, Case, Holmes, Akers, Holden, and Snyder Phillips culinary operations may open creating public area traffic and need for sanitation.
8. REHS Facilities will continue to provide culinary floor care and culinary bathroom cleaning service after dining halls 7 days a week once unit is closed. CLS handles sanitation during day.
9. REHS will continue to use established procedures to clean, sanitize and disinfect. The plan establishes an increase in the frequency of cleaning, disinfecting, and sanitizing.

The RHS REHS Facilities department is staffed, trained, capable and willing, and can be equipped, to house residents in the community bathroom and suite style halls for Fall 2020 by utilizing the following enhanced processes, procedures, and staffing models.

**Background and Assumptions**

1. The 1585 Building Service Worker (BSW) and Building Sanitation (San) teams report to work from 6:30AM – 3:00PM 7 days a week.
2. BSW team members are responsible for cleaning, sanitizing, and disinfecting the community and public bathrooms, shower rooms, stairwells and associated living wings.
   1. Male identifying staff are assigned to work in male identified areas
   2. Female identifying staff are assigned to work in female areas.
   3. At full staff, workers are assigned 4-5 community bathrooms and shower rooms with associated living wings per day.
   4. In suite halls, workers are generally assigned a living wing tower along with assigned restrooms, public space, and other areas
3. SAN team members are responsible for public area lobbies, lounges, entrances, glass, stairwells, classrooms, hallways, elevators, docks. At full staff, San team members are regularly assigned 1-2 buildings per day.
4. SAN are usually assigned entrance and lobby areas, dock spaces, and handle all floor care in most halls.
5. Bathrooms and shower rooms are closed while staff are cleaning.
6. Student and On-call team members cover shifts from 3:00PM to 2:00AM, policing public areas, booking set ups, resident furniture adjustment requests, and culinary cleaning
7. We are utilizing existing standard operating procedures and job assignments (SOP’s) for most cleaning processes and procedures. Due to COVID 19, we will be enhancing existing procedures and frequencies for cleaning as established by REHS.

**Processes and Procedures**

**Community and Public Restrooms**

1. **Sanitizing using O3:** BSW team members begin their shift by misting/fogging all fixtures and touchpoints with O3 sanitizer in assigned public and community bathrooms and lockers, gender free bathrooms, and shower rooms. This process should take roughly 5 minutes per bathroom. Including travel times and refilling the designated equipment with sanitizer this process should take about 30-40 minutes for two team members per building.

1. **Cleaning and rinsing/sanitizing using O3 and the Kai Vac Process:** Deep cleaning, rinsing/sanitizing process using pre-COVID-19 closing bathrooms and shower room procedures during this process.
2. **Disinfecting Process using approved EPA N List Disinfectant:** High use touchpoints are to be disinfected once the cleaning and sanitizing process has been completed. The disinfection can occur using spray bottles or misters to apply disinfectant. (Oxivar is current product).
3. **Sanitizing or disinfecting using fogger/misters:**  Team member spends the last 30-40 minutes of the shift misting/fogging (O3) or an approved disinfectant on all fixtures and touchpoints. Re-sanitize all assigned public and community bathrooms, gender free bathrooms, and shower rooms.

**Public and Common Areas**

1. **Disinfecting:** using trigger sprayers or misters: Building Sanitation Worker team members begin their shift by cleaning and disinfecting all high touch points with trigger spray bottles at focusing on main entrances and other highly traveled areas and elevators throughout building areas.
2. **Disinfect**ing: using misting equipment, sanitize and/or disinfect seating, tables, handrails, and other touch points in their other assigned areas. Building sanitation worker will clean and disinfect other areas minimally once per day in assigned areas.
3. **Sanitizing:** Using misters or trigger sprayers, in afternoon, re-sanitize touch points at main entry and other areas.

**All Areas:**

1. **Sanitizing:** 
   1. **3:00PM and 6:00PM** Student and on-call team members would misting/fogging all fixture and touchpoints with O3 sanitizer in all assigned public and community bathrooms, gender free bathrooms, and shower rooms.
   2. **6 pm to 9:00 PM** Student and on-call team members would misting/fogging all fixture and touchpoints with sanitizer in all assigned public areas with an emphasis on entry areas, classrooms, public lounges and community bathrooms, gender free bathrooms, and shower rooms.
   3. **9:00PM and 2:00AM** Student and on-call team members clean the floors and bathrooms in the neighborhood culinary areas after they have closed for the day.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **REHS Frequency per Day** | | |
|  | **Restrooms** | **Public Areas** | **High Touch Points** |
| **Comprehensive Cleaning** | 1 | 1 | 1 |
| **Disinfection** | 1 | 1 | 2 |
| **Sanitizing** | 1 | 2 | 1 |

REHS has developed their plan including frequencies for cleaning, sanitizing, and disinfecting, the following is recommended to meet the CDC guidelines:

|  |  |
| --- | --- |
| **REHS Restrooms** | |
| **Frequency** | **REHS Community and Public Restrooms Action Item in Cleaning Plan** |
| 1 | Clean- Application of using SAO through a Kai Vac hi pressure dispensing unit. Sanitizing using the low spray setting. Utilize standard cleaning practices as established by REHS. Disinfect high touch points upon completion with approved EPA N list product |
|  |  |
| 2 | Utilizing Oxivar spray and cloths or Oxivar disinfecting wipes for high touch point disinfecting |
|  |  |
| 2 | Re-sanitize utilizing SAO through a "Mist It" dispensing fogging system. Scheduled as part of daily routine by employees. |
|  |  |
| **REHS Public Areas** | |
| **REHS Frequency** | **REHS Action Item for All Public Areas in Cleaning Plan** |
| 1 | Sanitizing and/or Disinfection: Using SAO and microfiber towels. Sanitizing using SAO. Disinfection if equipment is available. |
|  |  |
| 2 | Clean and sanitize areas using SOP. Utilizing Oxivar spray or Oxivar disinfecting wipes or sanitize if disinfecting has already occurred in the morning. Final step as part of the REHS cleaning SOP. |
|  |  |
| 2 | Re-sanitize- Utilizing SAO through a "Mist It" dispensing fogging system. Scheduled as part of daily routine by employees. |
|  |  |
|  |  |
| **REHS Corridors and Flooring** | |
| **REHS Frequency** | **REHS for Public Areas Corridors Action Item in Cleaning Plan** |
| 1 | Vacuuming or carpet and matting using hepa filter vacuums. Application of SAO on wall surfaces with micro-fiber. Sanitizing using SAO. Utilize existing REHS SOP’s for hard floor care. |
|  |  |
| 2 | Utilizing Oxivar spray or Oxivar disinfecting wipes on touch points. Final step as part of the REHS cleaning SOP. |
|  |  |
| 2 | Utilizing SAO through a "Mist It" dispensing fogging system. Scheduled as part of daily routine by employees. |
|  |  |
| **REHS Kitchenettes and Community Kitchens** | |
| **REHS Frequency** | **REHS Action Item for Kitchenettes and Community Kitchens in Cleaning Plan** |
| 1 | Application of using SAO through handheld dispensers. Utilize standard cleaning practices as established by REHS. Specialty chemicals for grease removal, oven, and microwave cleaning |
|  |  |
| 2 | Utilizing Oxivar spray or Oxivar disinfecting wipes. Final step as part of the REHS cleaning SOP. |
|  |  |
| 2 | Utilizing SAO through a "Mist It" dispensing fogging system. Scheduled as part of daily routine by employee. |

REHS Cleaning Grid for Frequency of Cleaning Fall 2020











V:\Administrative Records\Projects\PPO\Preventative Maintenance\FAST\Worksheet for Fall Cleaning 2020 Grid

CDC Recommendation for Cleaning and Disinfection while in Phase IV

The CDC has established recommendations for cleaning and disinfecting facilities.

|  |  |  |
| --- | --- | --- |
|  | **CDC Recommendations for Developing Your Plan** | **Plan** |
| 1 | Evaluate your workplace, school, home, or business to determine what kinds of surfaces and materials make up that area. Most surfaces and objects will just need normal routine cleaning. Frequently touched surfaces and objects like light switches, door handles and knobs, panic bars, chair backs, countertops, desks, phones, keyboards, toilets, faucets, sinks partition latches, etc. will need to be cleaned and then disinfected to further reduce the risk of germs on surfaces and objects. | Identify |
| 2 | Some surfaces only need to be cleaned with soap and water. For example, surfaces and objects that are not frequently touched should be cleaned and do not require additional disinfection.  Cleaning reduces the number of germs on a surface. | Clean |
|  |  |  |
| 3 | First, clean the surfaces or object with soap and water. Cleaning with soap and water reduces the number of germs, dirt, and impurities on surfaces. Second, use an approved disinfectant from the EPA List N. Disinfecting kills 100&% of germs on highly used surfaces. | Disinfect |
|  |  |  |
| 4 | Practice routine cleaning of frequently high touched surfaces. More frequent cleaning and sanitizing may be required based on the level of use. Sanitizing using SAO kills 99.9% of germs on highly used surfaces. | Sanitize |

The CDC also recommends developing frequencies of cleaning and disinfecting spaces. Below are the recommendations that are recommended to be included in the plans based upon REHS spaces:

|  |  |  |
| --- | --- | --- |
|  | **CDC Frequency Guidelines** | **Daily** |
| **Actions** | **Public Areas and Meeting Spaces** | **CDC Frequency** |
| Clean | Cleaning of spaces using established SOP | 1 |
|  |  |  |
| Disinfect | Disinfect high touch point surfaces using Oxivar (EPA N List Product) | 1 |
|  |  |  |
| Sanitize | Sanitize high touch point surfaces using Aqueous Ozone (SAO) | 1 |
|  |  |  |
|  |  |  |
|  | **CDC Frequency Guidelines** | **Daily** |
| **Actions** | **Corridors** | **CDC Frequency** |
| Clean | Cleaning of walls, floors and ceiling areas and touchpoints | 1 |
|  |  |  |
| Disinfect | Disinfect high touch point surfaces using Oxivar (EPA N List Product) | 1 |
|  |  |  |
| Sanitize | Sanitize high touch point surfaces using Aqueous Ozone (SAO) | 1 |
|  |  |  |
|  | **CDC Frequency Guidelines** | **Daily** |
| **Actions** | **Kitchenettes and Community Kitchens** | **CDC Frequency** |
| Clean | Comprehensive cleaning and sanitizing of all surfaces and fixtures using Kai Vac system with Stabilized Aqueous Ozone (SAO or O3). | 1 |
|  |  |  |
| Disinfect | Disinfect high touch point surfaces using Oxivar (EPA N List Product) | 1 |
|  |  |  |
| Sanitize | Re-Sanitize high touch point surfaces using Aqueous Ozone (SAO) | 1 |

Appendix I: REHS Residence Hall Furniture Plan Tactics during Phase IV

**Facility Tactics for Residence Hall Space Modification/Furniture/Social Distancing Plan for full re-opening**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Space Type** | **Fixed furniture** | **Loose furniture** | **Floor stickers** | **Signage** | **Other needs** | **Notes** |
| Residence Hall Floor lounges | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | as needed | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |
| Residence Hall First floor lounges | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | as needed | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |
| Public areas- first floor corridors/lobbies | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | Y | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |
| Public areas- basements corridors/lobbies | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | Y | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |
| Public areas- upper floors corridors/lobbies | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | Y | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |
| Entryways and vestibules | Y- remains with barriers and signage | Remove chairs and store based on 6' spacing.  Tables remain in room with spacing | Y | Y | Address ADA for fixed furniture barriers | Couches remain, separated for distancing |

**REHS is still developing the space modification plan within the Residence Halls.** The file location is:

**V:\Administrative Records\Projects\PPO\Design and Construction Standards\PMO Standards\Covid**