

RETURN TO OPERATIONS

PART 2 — ENHANCEMENTS TO REDUCE THE RISK OF COVID-19

As the United States continues to open up, facilities across the country are beginning to plan for a return to occupancy. Careful consideration for the safety of those occupants, from employees to the general public, must be considered to mitigate the spread of COVID-19. While not inclusive, SSR's subject matter experts have compiled a list of recommendations for owners and facility staff to prepare their existing facilities to confidently return to operations. This two part series will examine necessary steps to [bring your building back online \(part 1\)](#) and **enhancements to reduce the risk of COVID-19** (part 2). Our intention is to provide concise and actionable information relative to your facility's operational systems with minimal capital investment — *information you can use NOW with equipment you have NOW*. This expertise is based on our 50+ year history providing engineering design and consulting services for the healthcare market and collaboration between our subject matter experts to inform a re-opening of facilities.

MECHANICAL

- Implement the following modifications to the existing HVAC systems*:
 - » Utilize the highest supply rate of outdoor air the current mechanical system can provide.
 - » Modify system controls to increase supply of outdoor air (e.g., ventilating for longer hours, changing the setpoint for demand-controlled ventilation systems).
 - » Evaluate the extent to which the current mechanical system can operate without recirculating air.
 - » The following potential effects should not be overlooked:
 - ◊ Energy consumption.
 - ◊ The ability to manage thermal comfort conditions (e.g., higher ventilation leading to draft, recirculation elimination straining conditioning capacity).
 - ◊ Maintenance processes.
- Develop a plan for overall indoor air quality and air treatment including*:
 - » Use the highest efficiency of media or other particle filters (particularly for recirculated air, if any) that can be installed with the current mechanical system. Operator should consider increasing the level of filtration in all air handling units for two replacement cycles upon re-opening the building.
 - » Consider adding HEPA filtration, where applicable.
 - » Utilize UVGI or UVc filtration equipment in air handling systems if existing capacity is sufficient.
 - » Consider implementation bi-polar ionization in air handling systems. SSR recommends ionization tubes, not ionization needlepoints.

- Consider implementing air quality monitors throughout the building's regularly occupied spaces for the following pollutants*:
 - » PM2.5 and/or PM10.
 - » Total VOCs and/or Formaldehyde.
 - » Ozone.
 - » Carbon Monoxide.

ELECTRICAL

- Consider space mounted UVc fixtures.
- Consider "touchless" lighting system controls.

PLUMBING / FIRE PROTECTION

- If not already in place, upgrade all restrooms for "touchless" interactions. "Touchless" interactions include auto-flush valves at all toilets and urinals, sensor faucets at all lavatories, and sensor soap and paper towel dispensers. Use of hand dryers should be discontinued unless equipped with HEPA filters. Include steps to reduce direct-touch, such as hand contact at restroom entry and individual stall doors*.
- Develop and implement a Legionella Management Plan addressing hot water systems, cooling towers, decorative fountains, and any other devices where water is recirculated and aerosolized*.
- Consider implementing water quality monitors the building's drinking water for the following parameters*:
 - » Turbidity.
 - » pH.
 - » Residual (free) chlorine.
 - » Total coliforms, if chlorine is below detection limits.
- Implement a moisture management plan*.

GENERAL

- Consider pursuing evidence-based, third-party verified rating for all new and existing building and facility types focusing on operational policies, maintenance protocols, stakeholder engagement, and emergency plans such as the [WELL Health-Safety Rating](#).

*Items noted with * can help contribute to official rating through the [WELL Health-Safety Rating](#).*

For Additional Information:

Mike Rogers, PE, LEED AP (Venues)
615.460.0533
MRogers@ssr-inc.com

William Loeffel, PE, LEED AP
615.460.0598
WLoeffel@ssr-inc.com

Eric Sheffer, LEED AP BD+C, O+M, ISSP-SA (WELL)
615.514.6132
ESheffer@ssr-inc.com