

### HVAC

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- During the shutdown, maintenance employees should check for and repair duct leaks. Leaks can occur at transitions from hard ductwork to flexible ductwork as well as at the connection to the air device (diffuser, grille, etc.).
- Check air filters and replace if dirty. If your facility does not have an air filter replacement protocol, create one to check and change the filters every 3-6 months. Dirty air filters will reduce the total air being supplied, which means the cooling/heating mechanism in the unit will have to run longer to cool/heat the space or will not be able to keep up the cooling/heating load on the hottest/coldest days.
- Reset all thermostats in unoccupied areas to an unoccupied setback. This could be a maximum of 85 F for cooling and a minimum of 55 F for heating.
- Allow all units serving the unoccupied spaces to cycle on and off with the internal load. The fan should be running only when there is a need for heating and cooling during unoccupied periods.

### LIGHTING

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- Turn off the lights in all unoccupied areas, leaving on only security lighting (e.g., the lights in corridors that are not on a light switch).
- Consider replacing the security lights with LEDs. For example, there are LED replacement tubes that fit into existing T8 light fixtures. Confirm the type of light fixture and availability of LED replacements compatible with that fixture. LEDs' superior lamp life, operational savings and dimmability can offset their higher initial cost.
- If your facility has automatic lighting controls that turn lights on in the morning, set them to unoccupied mode.

### CONTROLS

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- If your facility is completely unoccupied and using chilled water (water typically in the range of 44-56 F), reset the leaving water temperatures from the chillers. Each day, consider increasing the leaving water temperature by 1 degree to the lower of a maximum of 55 F or the manufacturer's recommendation. If the air handling units are unable to keep up with the load in the space or the pumps start to run excessively, stop and reduce the leaving water temperature on the chillers.
- While your facility may not need heating during this time, if your boilers are on, there are ways to save energy. If your facility is completely unoccupied and has a condensing boiler for heating hot water, reduce loop temperatures. The boiler leaving water temperatures can be reduced to 120 F. Only do this if you are sure you have a condensing boiler. Non-condensing boilers must stay above an entering water temperature of 140 F.
- If the facility is completely unoccupied and has a building management system, set the facility to unoccupied mode.

## VENTILATION

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- Shut off ventilation air being supplied to all unoccupied spaces. If a unit is serving spaces that are both occupied and unoccupied, leave the unit on. There are many ways ventilation can be supplied in your facility.
  - Dedicated outside air system (DOAS)
  - Modulating outside air damper
  - Fixed position outside air damper
- Shut off general exhaust fans serving all unoccupied spaces. If the fan is serving spaces that are both occupied and unoccupied, leave it on.

## WATER

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- During this long-term unoccupied period, check water meters for usage. If there is usage unaccounted for, check the facility for leaks and repair any that are found.
- Check the GPM on the faucets and replace the aerators on the faucets with low-flow aerators. Use a maximum of 0.5 GPM for bathroom faucets and 1.5 GPM for all other faucets.

## MISCELLANEOUS

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- If there are blinds in unoccupied spaces, close them to limit radiant heat gain from the sun into the space.
- Unplug all electronics not being used (e.g., TVs, projectors, personal space heaters). While they might be turned off, they can still use energy if plugged in.
- Unplug vending machines in unoccupied areas.