**ASHRAE Addendum a**
**to ASHRAE Guideline 44-2024**

**First Public Review Draft**

# Proposed Addendum a to Guideline 44-2024, Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events

**First Public Review (May 2026)**
**(Draft shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed draft, go to the ASHRAE website at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the guideline (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This guideline is under continuous maintenance. To propose a change to the current guideline, use the change submittal form available on the ASHRAE website, www.ashrae.org.

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**(This foreword is not part of this guideline. It is merely informative and does not contain requirements necessary for conformance to the guideline.)**

## FOREWORD

*This proposed addendum expands Section 6.5, "*Returning to Normal Operations*", to address specific actions that may be warranted after a wildfire even in the vicinity of the building.*

***Note:*** This addendum makes proposed changes to the current guideline. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current guideline are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.

## Addendum a to Guideline 44-2024

***Modify Section 6 as follows. The remainder of Section 6 remains unchanged.***

## 6. OPERATION DURING A WILDLAND FIRE EVENT

[ … ]

**Checklist 3 Returning the Building to Normal Operations**

| | |
|---|---|
| ☐ | Refer to documentation and photos of the original settings and follow steps for placing the building in Smoke-Ready Mode in reverse order. |
| ☐ | Re-connect and/or re-enable outdoor air dampers including re-enabling economizer and DCV systems. |
| ☐ | ~~Return thermostat and control setting to pre-smoke settings.~~ |
| ☐ | Remove outdoor intake temporary filters if used. |
| ☐ | Return control settings to normal. |
| ☐ | Inspect and change return air filters to the type used for normal operation. |
| ☐ | ~~Re-enable economizer and DCV systems.~~ |
| ☐ | Verify operation of system including sensors after returning to normal operation conditions. |
| ☐ | Inspect the air path from outdoor air intakes to supply diffusers as well as the return air path for possible contamination, determine the level of effort appropriate for cleaning/decontamination. |
| ☐ | Clean indoor and HVAC interior surfaces to remove ash deposited from the smoke as needed. |

[ … ]

**6.5 Returning to Normal Operations.** Criteria for returning to normal operation, similar to Table 7, should be defined for each building. Normal HVAC operation will help to remove any smoke lingering indoors and will improve IAQ. The Smoke Readiness Plan should include a checklist for resuming normal operations; Checklist 3 provides an example of topics to address. This list will largely involve reversing the changes made during the smoke event, relying on the documentation developed for normal operations and any additional notations made during the event. ~~Dirty filters should be changed to avoid circulation of odors that may remain from the smoke.~~

~~In addition to reversing building HVAC system settings and removing filters, ash may need to be removed from building surfaces. Wear appropriate PPE when cleaning up ash. Avoid actions that agitate ash particles, such as dry sweeping or leaf blowing. Before sweeping indoor and outdoor hard surfaces, mist them with water to suppress dust, and follow with wet mopping. For areas lightly dusted with ash, use a damp cloth or wet mop~~

~~to wet ash. Whenever using water, use as little as possible and do not rinse ash into drains. Commercial cleaning may be needed for carpet, upholstery, and window treatments. Clean and sanitize food contact areas and any items that may facilitate ash ingestion. Collected ash may be disposed of in the regular trash and should be stored in plastic bags or other containers to prevent it from being agitated.~~ [110] ~~Note, building surfaces include the interior surfaces of HVAC components, including ducting that delivers air to occupied areas.~~

~~Review and update the Smoke Readiness Plan and/or the normal operating procedures as appropriate based on lessons learned during the wildland fire smoke event.~~

**6.5.1 Potential Actions After Wildfires.** The following actions to be taken after a wildfire event in the vicinity of the building should be reviewed during the planning phase of the Smoke Readiness Plan. The level of effort used for post-wildfire actions depend upon duration and severity of the smoke event and the amount of residual ash and other contaminants, such as fine particulate matter (PM 2.5), left over from wildfires. Smoke Readiness Planning should consider the anticipated frequency of smoke events in a given season. In regions with a history of multiple/prolonged smoke events, lesser measures (such as changing filters, surface wiping, vacuuming, etc.) may be needed after each individual event, followed by more extensive measures (as detailed in Sections 6.5.1.1 through 6.5.1.7) at the close of the fire season.

**6.5.1.1 Outdoor Air Dampers.** Return outdoor air dampers to their normal positions. As per Section 6.1, Smoke Readiness Plans should include detailed records or normal operational settings, including outdoor air damper positions, to aid in returning buildings to normal conditions. If outdoor air dampers were closed during the wildfire smoke event without marking the original damper position, it may be necessary to perform some level of airflow re-balancing, especially when required by building code for the specific building use. An example of that process is outlined in ASHRAE's *Design Guidance for Education Facilities: Prioritization for Advanced Indoor Air Quality*, Version 2.0. Along with outdoor air damper positions, any rooms that are designed to have positive or negative airflow for health or safety reasons should be confirmed.

**6.5.1.2 Duct Cleaning.** In accordance with Section 6.5, when duct cleaning is deemed necessary, the air handling systems and/or downstream components (VAVs, reheat coils, etc.) should also be considered for cleaning. Additionally, consider cleaning the return and exhaust grills. Return air ceiling plenums, as well as equipment room floors, walls, and ceilings in the return air path should also be examined to determine if cleaning is needed.

**6.5.1.3 Building Sensors.** Sensors and thermostats should be checked for proper calibration if their readings appear inaccurate. They may need to be cleaned per manufacturers' suggestions to ensure that fine particles or other deposits are not affecting the ability of the sensor to accurately measure temperature, pressure, humidity, etc.

**6.5.1.4 Central Air Filters.** Verify air filtration fit, function, and performance. When air filters are replaced, inspections should be made to determine if there are physical indications of filtration being bypassed. If noted, corrections and/or alterations should be made to reduce or eliminate any bypassing.

**6.5.1.5 External Components.** Inspect outdoor air intakes and exhaust openings, bird screens, louvers, dampers, and other attached components and ducting for physical condition and buildup of dirt and debris.

**6.5.1.6 Air Cleaning Devices.** Verify operation and condition of air-cleaning devices, such as germicidal ultraviolet devices, if present.

**6.5.1.7 Surface Cleaning.** Ash may need to be removed from building surfaces. Surface cleaning can help remove the sources of smoke odors after a wildland fire smoke even. See Section 6.2.6 for further guidance on reducing odors.

When cleaning up ash, wear appropriate PPE and provide adequate ventilation and filtration to remove air pollutants introduced or resuspended during cleaning. Avoid actions that agitate ash particles, such as dry sweeping or leaf blowing. Clean surfaces and items according to the manufacturer's instructions when available. Various cleaning methods may be effective depending on the type of surface and the amount of ash present. These may include wet methods such as damp wiping or mopping, and/or dry methods such as vacuuming or using sticky rollers or "chem" sponges. When vacuuming, use a HEPA vacuum if available to minimize the resuspension of particles into the air. Commercial cleaning

may be needed for soft surfaces such as carpet, upholstery, and window treatments. Clean and sanitize food contact areas and any items that may facilitate ash ingestion. Collected ash may be disposed of in the regular trash and should be stored in plastic bags or other containers to prevent it from being agitated. Do not rinse ash into storm drains. [110]

**6.5.2** Review and Update the Smoke Readiness Plan and/or normal operating procedures as appropriate based on lessons learned during the wildland fire smoke event.