



Just Ask ASHE: October 7, 2020 Q&A's

During the last session of the ASHE Virtual Annual Conference on October 7, 1,500 attendees tuned into the Q3 Just Ask ASHE session to get their questions answered by ASHE experts. Questions included upcoming webinar topics, ABHR storage, COVID recommendations and updates to codes and standards. Check out the questions and answers below!

Questions and answers have been lightly edited for length and clarity.

Q: If you have to shut down an air handler to change out final filters, should the air handler be left shutdown during this process?

If you have to shut down an air handler to change out final filters then the AHU should be shut down throughout the process. Any shut down of any AHU must be coordinated with the appropriate staff. AHU shutdowns will affect the required room pressurization relationships. This must be properly evaluated through a risk assessment.

The ASHE COVID Team developed a FAQ to address how to change out filters. The FAQ says, "the virus should adhere pretty well to the filter unless the filter is beaten or dropped. If this is a concern then the use of a fixative such as hairspray on the filters could be considered. Disposal should be performed by bagging the filters and disposing them in normal trash". Check that out <https://www.ashe.org/covid-19-frequently-asked-questions> under the filtration tab.

Q: What are the requirements around the use of nitrous oxide in areas not deemed for anesthetizing?

The ASHE Member Tool Task Force provided guidance on this issue: please see [this article](#) and the associated [Nitrous Oxide Source Evaluation Tool](#). There has been a lot of committee discussion around this for the 2021 edition of NFPA 99 but no changes were ultimately made. ASHE will continue to work with the committee to address these use cases.

Q: CMS was working on ligature guidelines for behavioral health under QSO 19-12-Hospitals published on 04/19/2019. Are there any updates on this topic?

Unfortunately, CMS underwent some changes midway through this process. There have been plans to go back and make updates, but ASHE believes those have been put off with COVID.

Q: As Dave so correctly pointed out there are volumes and volumes of codes to understand and be proficient in. What is recommended for a young engineer trying to come up through the ranks in health care to become as proficient as possible in an efficient manner?

A great place to start is to take advantage of the ASHE educational opportunities including webinars, e-learning and conferences. Also, ASHE has a young professionals network to support young professionals



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in ASHE as they look to advance their careers. Please reach out to our Senior Advocacy Associate Benjamin Leutze (bleutze@aha.org) to learn more about the group.

Q: Will ASHE be producing a document that covers COVID strategies?

Check out the ASHE [COVID-19 Resources](#) webpage that contains all of our current COVID strategies. ASHE is currently developing a consolidated document regarding ventilation which will be shared on the website and via our COVID Roundup e-newsletter.

Q: In a recent presentation it was mentioned that the 10 gallon ABHR storage was only counted for those "in use," but that isn't how I have interpreted the requirements. What are the requirements for ABHR storage?

NFPA 101 allows for up to 10 gallons of ABHR solution outside of a storage cabinet in a single smoke compartment, with the exception that you get to ignore one container per room (located in that room) from the total quantity.

Q: What is the balance of volume and placement of ABHR within health care facilities and business occupancies during a pandemic? Is this being addressed in future editions?

ASHE has not been aware that the current limits in NFPA 101 have been a problem, even though there have been more dispensers located throughout the facilities. If you are experiencing an issue, ASHE is interested in learning about it: submit your comments [here](#).

ASHE also encourages you to submit a public comment to NFPA 101. "How to Submit a Public Comment" videos are posted on the ASHE website [here](#).

Q: What are the storage requirements for ABHR storage in a building outside the hospital?

NFPA 101-2012 20.3.2.6/21.3.2.6 covers the storage requirements for ambulatory health care occupancies. For business occupancies, the 2012 edition does not have a specific reference but the 2018 edition refers to section 8.7.3.3. All storage above normal quantities for these occupancies must meet the storage requirements found in NFPA 30.

Q: Will ASHE be producing an update to DNV standards?

ASHE will be producing a DNV webinar scheduled for October 20, 2020 and an HFPA webinar scheduled for December 15, 2020. These can be found on the [ASHE website](#). ASHE is also updating the CMS K-tag crosswalk to include DNV standards.





Q: What progress has been made with possibly loosening the requirement to not have anything touch sprinkler lines?

ASHE's Sprinkler System Support Analysis monograph discusses this issue and can be found [here](#). The NFPA 25 TC will be holding their first draft meeting later this month. It is anticipated that the ASHE report will be considered as substantiation for a potential change. However, CMS and the AOs will continue to use the 2011 edition of NFPA 25 and may not recognize any changes until they update their codes and standards.

Q: What current ASHRAE/ASHE 170 research projects are in the works right now?

ASHRAE is currently working on a large study related to air changes. The scope of the research goes beyond ASHRAE/ASHE 170 in that it is looking at multiple space types, but this foundational information will be helpful in understanding contaminant movement and removal. ASHRAE/ASHE 170 is working with teams that are studying operating rooms now and pursuing further research on patient room air changes.

Q: Has ASHRAE/ASHE 170 had any discussion on lower limits on relative humidity levels?

There is some research that encourages 40-60% RH especially in ICU areas due to susceptibility to HAIs. ASHRAE/ASHE 170 is in the process of reviewing all of the space temp/humidity ranges. Please share any thoughts and concerns by submitting a public comment. "How to Submit a Public Comment" videos are posted on the ASHE website [here](#).

Q: Is ASHRAE involved in aerosol studies and intelligence learned there?

ASHRAE has funded numerous studies, including contaminant motion and removal. These have been in situ and correlated with CFD modeling. Obviously the specifics of each space type and the typical and atypical HVAC systems that may be applied can have a significant impact on the effectiveness of the air quality and performance. That is why ASHRAE standards such as ASHRAE/ASHE 170 undergo continuous maintenance so that they can be adjusted as new information comes to light.

Q: With COVID, we have seen a very large increase in the use of acrylic (also known as Plexiglas, Lucite, Acrylate, etc.), and many hospitals have made these permanent fixtures. Most acrylic does not meet the Flame Spread and Smoke- Developed Index allowed for hospitals. While we are in an official state of emergency, this is allowed. What do you see as the potential long-term impacts?

Right now, NFPA is hoping that everyone remains aware that these partitions likely do not meet those requirements for Flame Spread and Smoke-Developed Index. While flexibility might be needed for public health at this moment, it should not be a permanent solution. If we are going to allow for this use permanently, we need to ensure that partitions are not extending to heights or locations that affect egress, sprinkler flow patterns or smoke detection. We should also consider whether the acrylic is of sufficient quantity to be considered an interior finish. If not considered an interior finish, the decoration



criteria would be more appropriate. There are also requirements in building codes regarding light-transmitting plastics with test criteria other than E84.

Q: What changes to code do you anticipate due to COVID?

ASHE anticipates that there will be changes to codes and standards as a result of the global pandemic. As always, ASHE will continue to work with the relevant organizations so that the potential changes are data driven and not made rashly. ASHE anticipates there will be discussions concerning surge capacity, infection control, emergency planning updates, PPE mandates, access control limitations and other requirements. ASHE is forming a Pandemic Resiliency Advisory Group (PRAG) to review physical environment changes as these discussions happen. The PRAG is comprised of experts in the field, representing about one-third of the hospitals in the U.S. Please watch for recommendations from the PRAG in the near future.

Q: When will CMS adopt newer editions of NFPA 101/99?

CMS has a process in place where they review each edition of NFPA 101 and NFPA 99 to determine if there have been significant enough changes from the currently adopted editions to warrant going through the adoption process. It is safe to say that at some point in time CMS will adopt newer editions of NFPA 101/99. ASHE does not currently know when or which edition.

There was a presentation scheduled at the (canceled) NFPA Conference & Expo earlier this year discussing the advantages of updating to newer editions, which has resubmitted for next year. We are aware of some interest from CMS to hear this presentation. ASHE encourages the health care field to review the newer editions of NFPA 101/99 and submit waivers as appropriate.

Q: Our HVAC fans are due for annual fire alarm trips. These are the main fans serving our units where we are housing COVID-positive patients. What would be the best way to proceed?

ASHE recommends that you consider a risk assessment. Determine the success/failure rate of other fans and use the data to determine if you should use the CMS ITM waiver. The ITM waiver will be in effect through the end of the emergency declaration and ASHE specifically requested this waiver for these types of situations.

Q: How does NFPA and ASSE interact in determining adoption of technical aspects?

ASSE along with UL, ASTM and NSF are all considered during the code development process. Subject matter experts select technical reference standards based on their experience in the field. There are no formal partnerships between ASHE and ASSE.

Q: How do we convince nervous clinicians and nurses that HEPA machines are not needed if there is good ventilation and filtration (say MERV 14)?



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The best way to address clinician concerns is by sharing research and information. Transparency about what the specific facility equipment can accomplish will be helpful. It is less about convincing them and more about providing the information they need to make the right decisions. There are many resources you can share from the [ASHE COVID-19 Resources](#) webpage, specifically in the FAQs and Articles sections.

Q: Does ASHE have a CMS CoP crosswalk for adopted codes and all accrediting organizations?

ASHE is currently working to update the current crosswalk include DNV and HFAP standards. Check out the current [ASHE K-Tag Crosswalk](#), [ASHE A-Tag Crosswalk](#) and [ASHE E-tag Crosswalk](#).

Q: Is there a cheat sheet that would help one understand which version of each code they should be using and for what (e.g., NFPA, etc.)?

For facilities build to the 2012 edition of the Life Safety Code, a relatively useful place to start is Chapter 2 of that document. Chapter 2 includes all of the referenced standards from that document and includes their edition years. Not all of them are necessarily applicable and the extent to which they are applicable needs to be well understood, but it is a good place to start for all of those referenced through NFPA 101. State requirements can also vary, but this helps for the CMS adoption. Managers of any facility built prior to the 2012 edition of the Life Safety Code would need to refer to the applicable code edition at the time of design.

Q: Winter is on our doorstep. When can we expect guidance regarding the necessity of indoor COVID testing?

Currently ASHE's COVID Team and Permanent Changes Task Force are working on information related to cold weather considerations. Please check the [ASHE COVID-19 Resources](#) page regularly for updates in the coming weeks.

Q: Must elevator hoistway doors be included in annual testing required by NFPA 80 5.2.1? Table 8.3.4.2 lists hoistways as required 2-hour separation with 90-minute door assemblies.

ASHE does not believe there is any language in NFPA 80 that exempts the elevator hoistway doors. Elevator maintenance providers test and inspect these doors. This documentation should be included in your fire door inventory and documentation.