



Inspection Report

December 2020

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The Washington State Association of Fire Marshals is an organization comprised of seven divisions working on: National Codes, State Codes, Legislative Issues, Professional Development, Communications, Fire Prevention Institute, and Fire Investigation.

WSAFM Vision and Mission Statement

Vision

To be a recognized leader and partner in fire prevention and community risk reduction.

Mission Statement

To provide leadership and professional development opportunities for our members and associates through communication, education, legislation and code development.

WSAFM President's Report – Dave Kokot, P.E.

The temperature has been slowly dropping, the daylight is getting shorter, and there are holiday lights and decorations going up everywhere. It is that time of year for joy and cheer!

But this year is different. There is a silence at all those street corners that have usually had Santa's helpers ringing their bells, shopping is less intense (many just sit in their car waiting for someone to bring their order out to them), opportunities to get together with friends are now a concern (and worth a second thought), and the enjoyment of going out to dinner with the festive decorations and meals is a distant memory.

What has also happened this year, is that we have learned to more flexible, learned new terms like Zoom, GoTo, Teams, and VPN. We also learned how casual we can be as long as it is out of view of the web camera, and (for those who figured it out) made it look like we were working somewhere distant by changing our background on the video (and then having the cat or dog walk by the camera). We have learned to read lips when the bandwidth is adversely affected for the video.

These lessons will not quickly end, or even go away. In many ways, it has allowed for more participation in meetings by those who normally would not be included due to distance and travel time. It is not like we are there in person, but we could at least talk to someone (unless we forgot to turn off mute) and see them (most guys forgot how to shave).

Outside of the pressures of work, the year has allowed us to explore other avenues and means of entertainment and amusement. As for me, I have been able to ride more virtual roller coasters than I ever would think of going on and have seen more cat videos than I even believed existed (and the one with dogs and cats dressed as humans eating dinner is just too funny to pass up!). Families have been able to keep in touch with web meetings as well, although you can usually only see the top of one person, the chin and nose of another, and Grandpa or Grandma with a blank screen saying that they cannot see anyone. Many of us have gotten creative with the kagillion Amazon boxes we have received and feeling good because you remembered to grab your mask as you headed out the door and then realize you are just heading out to your garage. Who would have

believed that all this was going to happen this year?

There has been sadness as well. Almost all families have experienced some loss associated with the pandemic, and the economy will struggle. For those who have suffered and survived, we only wish the best for you.

There is light at the end of the tunnel. Although it may take some time to get this whole thing back upright on the rails, it will happen.

2021 will be a new year, and we look forward to engaging the membership in the activities we are working for, including getting together again in Chelan (fingers and toes crossed).

By-Law Changes Approved by the Membership

At the November Association meeting, the membership passed the Board approved bylaw changes. The proposed changes were needed to provide better alignment with our mission and vision. These changes included significant changes to the Board of Directors and our membership structure.

The change to the Board of Directors was the creation of an Executive Board and 2nd Vice President. As we have experienced in our respective departments, things are hectic. To address our operational needs, we proposed the creation of an Executive Board. The new Executive Board will comprise the four primary Association officers, the president, 1st vice president, immediate past president, and the newly created 2nd vice president. The Executive Board will focus on the daily operational needs and take direction from the Board of Directors. The Board recently appointed board member Jon Napier to the 2nd vice president position.

The change to our membership structure is that we now track members at the agency level, similar to the Washington Fire Chiefs. Each department will be responsible for managing its staff, improving accuracy, and streamlining our accounting and renewal practices. With the move to the agency level membership, the Association implemented a new website and management software called Personify by Wild Apricot. The software will provide a needed refresh to our website and better tools for managing memberships, communications, event management, and renewals.

With the new agency level membership, we needed to create a new rate structure. We chose to use a rate structure similar to the Washington Fire Chiefs, which uses tiers based on the value of property protected by the jurisdiction. Fortunately, the Washington Fire Commissioner's Association publishes these stats in the Washington State Fire Service Directory for easy reference.

The rate change was significant but will provide tangible value for membership. We are excited that our membership now includes an annual webinar series. The webinar series will allow each agency member an opportunity to gain a minimum of 1 ICC Preferred Provider CEU annually. To our knowledge, this level of membership benefit is unprecedented.

The Board appreciates our membership's continued support in our mission to provide leadership and professional development opportunities for our members and partners through communication, education, legislation, and code development.

Welcome New Board Member Mike Six!

The New Guy.... In an effort to continue the legacy of Robert Bradley (Ret), Olympia Fire, I threw my name in the hat for the WSAFM board position 8.

I am a Captain with the Bremerton Fire Department assigned to Fire Prevention/Fire Marshal position. A fairly traditional office consisting of inspections, plan review, fire protection systems and fire investigations. I have been in

this position since 2009.

So far all I can really offer to this newsletter is my first impression of being counted among the group. VERY HUMBLING and without a doubt the smartest and nicest people you will ever meet.

So, my first piece of advice for readers of the newsletter is to save the contact information included and call anyone of the members with questions. These are the very people who have likely managed the very situation you have before you. In addition, they were likely at the table when the specific code language was proposed. Code knowledge is important but the relationships in the code community will get you to the prize. Thanks for letting me serve!!

2020 Fire Prevention Institute – Tom Maloney

October 18-22, 2021 -Power of Prevention

The Fire Prevention Institute focuses on important prevention and strategy issues facing fire officials, and provides networking opportunities related to education, engineering, and enforcement efforts to help improve safety in our communities and help minimize loss due to the devastating effects of fire. The Institute also includes essential training hours needed for code recertification of local code enforcement officials, public educators and fire investigators.

Our lives are very different in these unusual times to say the least but the FPI is still on schedule for October 18-22, 2021. We are making the necessary changes to help with your safety in the new normal. Also, there was a decision to remain at Campbell's through at least 2024, as we continue to make changes to facilitate our attendees.

The topics for the FPI are based on the survey returns from the 2019 FPI. These surveys are very vital to us as we continue to meet your needs for great educational programs.

Topics this year will include report writing, social media and marketing, lessons learned from a MCI, fire inspections, energy storage, fire sprinkler installation, kitchen hood inspections, and relationships to name a few. A full schedule will be coming out with the registration in May of 2021.

We are also glad to say that Campbell's has implemented many new safety measures that will keep us all safe in our new dynamic environment. We will continue to use the best practices that are being used within Washington State.

We would like to announce our keynote speaker Chad Williams. As a former U.S. Navy SEAL Chad draws from his experience in the SEAL Teams to communicate an instructive perspective on teamwork, resilience, leadership and self-motivation.



With the goal of becoming a Navy SEAL Williams entered the world of the military's most difficult training known as BUD/S (Basic Underwater Demolition SEAL training). Out of a class of 173 men that all vowed they would die before ever quitting Chad would be 1 of only 13 that would make it through to graduation day.

Having served his country proudly through multiple deployments on SEAL Teams One and Seven. Today, Chad is a bestselling author and frequent guest on major news networks such as Fox News Channel, Anderson Cooper 360, CNN Newsroom and more.

Chad draws from his military experience to educate others of the Navy SEAL's mindset, providing insight to goal setting, effective leadership, teamwork, overcoming adversity and the ultimate motivation.

We are looking forward to seeing everyone and are very excited to have some of the best speakers in country coming to Lake Chelan to provide us we quality topics regarding fire prevention, education, and investigations.

Commercial Kitchens and You – Steve Riggs

(Part 3 of 3 Inspection and maintenance)

Welcome to part 3 of our series covering commercial kitchen hoods. Part 3 will discuss acceptance inspections of the fire suppression system and ongoing maintenance and inspection of the system. First, let's do a brief recap of part 1 and 2 of this series.

In part 1, we identified lifestyle changes that show Americans are eating out more than they are cooking in (pre-COVID - 19). As a result, we are seeing more commercial kitchen fires across the nation. In 2019, there were more than 7,500 kitchen suppression systems activated across the nation. Imagine how many were never called in? In Skagit County, where I reside, we had 8 known suppression activations (confirmed fires) with two injuries in 2019.

“The system” is made up of three components: the mechanical, the cooking media, and the fire suppression system. All components play an essential role to proper operation of **“the system”**. Any part of the system that has been modified, changed, or not maintained may have a negative outcome if a fire should take place.

We discussed who can install and maintain these systems. Per the manufacture, only factory trained personnel are allowed to install. Factory certifications are only good for 3-years and are not transferrable between companies. Maintenance of existing systems can be challenging for the AHJ. The IFC allows for the AHJ to accept non-factory trained personnel to maintain and service systems. The issue then becomes that the manufacturer will not stand behind the system if there is a fire or accidental discharge. Furthermore, non-factory trained personnel do not have access in most cases to factory approved equipment (nozzles, fusible links as an example) so third-party parts are being used which removes the UL300 approval for the system.

Finally, we discussed Third party record keeping. The platforms available can be a great asset to the AHJ without cost to them. I found this to be most useful and was able to keep close track of system status and contractors.

In part 2, we discussed the plan review process, the importance of the AHJ receiving factory training. Although they will not issue a certification to install, training with the actual installers is quite the experience. With the different system types (11 in all) it is important to get to know all those systems. It also essential to have a good working relationship with the local and regional sales representative for the factory. They can provide valuable information and assistance.

We discussed having ALL factory parts and installation manuals available for plan reviews. Each system is a little different and manuals for one system type will not work for another system type. Be on the factory email list for updates and no longer supported items. We walked the full review process including minimum drawings from a CAD or other approved drawing programs. We also discussed looking through existing records and the importance of existing records.

Part 3: The Acceptance Inspection, the final step to complete the project. A couple of items to consider:

1. Take your building official or building inspector along. Most AHJ's separate the mechanical (hood installation, exhaust and make-up air) from the fire suppression. Having your building official present will allow for the ENTIRE system to be inspected and all deficiencies noted at one inspection. This also takes away the “he said, she said” approach from some installers.
2. When scheduling make sure the person that installed the system is on site and that they have their certification with them.
3. Make sure the installer has a current factory manual (all of it) with them for the inspection. This will ensure that discrepancies from approved plan set can be reviewed at the time of inspection.
4. If a general contractor is managing the project, include them in the inspection as they have a valued interest in the project and there may be financial penalties if the job is not finished on time.

The inspection: Once on site and after introductions find the permit and approved drawings. Do a visual comparison of what was installed to the plan set. Are they the same? Make sure to ask if a pre-test was completed, your inspection

should not be the first time the system has been activated.

Bring out your tape measure and confirm the following items:



1. Hood size, is it the same as reviewed? Look and confirm manufacturer and type of hood.
2. Measure the appliances as nozzle types, quantity and distance are based appliance type and size. Do they match up? Are the appliances in the order as shown on the approved plans?
3. Based on the appliance, nozzle type and coverage, is the nozzle height and location appropriate? This is a good time to pull out your laser level and determine actual nozzle location (coverage area) to the appliance.
4. Are the appliances at least 6 inches in from the edges of the hood? This is another good use of the laser level.
5. When checking nozzle coverage and location do not forget the plenum and duct nozzles. It is always a

good practice to measure the duct to confirm actual size.

6. Is the manual pull station near an exit point and set at the correct minimum maximum height?

Next on your inspection is the nozzle type(s). You might have looked at the nozzles while doing your measurements, which is a good practice. Have your ladder handy for access to the control head. Have the technician remove the cover if not removed already. Look for the following:

1. Is it the correct control head, tank and tank size and is it easily accessible? When the system bottle is removed for testing check the burst disc to see that it is present and correct for the bottle type.
2. Each suppression system has specific component connection locations, to they match up with the installation manual.
3. Is the electrical system connection (for the shunts) in an approved junction box on the outside of the control head and has it been signed off by the electrical inspector?
4. Are the attachment points from the automatic detection and manual pull correct? Too much slack in the cable or too long of cable tails or improper crimps can keep the system from activating properly.

Inspect the piping to confirm piping size, number of elbows 45 or 90 degrees, tees, and drops. Do they match the plans or were there modifications and are the modifications within system specs. Last, your automatic detection. The system type will determine the location. Amerex, as an example, has a link line available instead of individual heat links. At a minimum, each appliance is required to have coverage including the plenum and duct. Confirm coverage requirements to system type. At this point, link temperatures and dates are not important.

The Test: With the visual inspection complete, it's time to begin testing. Your organization will determine the tests that you are witnessing, suppression versus mechanical.

The first test is the manual pull station. I like having the cook or manager present to activate the system. Check for cable draw length (14-inches maximum) and resistance to the pull (maximum 40-lbs). I prefer balloons over the nozzles depending on system size. Leave a couple nozzles open (more so at the remote end) to feel air flow and pressure.

The next test is the automatic link system. Many AHJ's just witness the mechanical actuation in the control box. I recommend full set up like the manual pull to witness the flows. The technician will cut the link and the system should activate.

During these first to tests you will also want to confirm complete gas and electrical shutdown for all appliances, electrical connections and lighting systems unless explosion proof. You will want to confirm that the make-up air has shut down and the exhaust air is still on. How does the exhaust fan activate? Manually with an electrical switch or automatically with a thermal conductor?

The next test I recommend is the smoke test. This sometimes is completed with the mechanical portion of the inspection. With the make-up air off and exhaust fan running, use an approved smoking device and walk the edges of the hood. All the smoke should be pulled inward. Watch for an Eddie affect beside tall appliances that may push smoke out from under the hood.

Your last test is the heat signature test. This can be done in a couple of methods. I personally recommend using heat tape located on the top and bottom of the plenum (outside the filters) over every appliance (large appliances may have tape at each end) with the standard links of 450 degree installed (most common of all installation companies). Let the system be used for a week. Return to evaluate the heat tape coloring and assign the correct temperature link to the appliance. The standard is 100 degrees above the hottest temperature the appliance produces. Please refer to the manufacture's temperature guidelines within the manual.

Proper Heat Tape Location

The second way to conduct the heat signature test is to have a handheld heat gun. Turn all appliances on high, disconnect the exhaust fan to achieve the highest operating temperature. Wait 5 to 10 minutes and take heat readings over each appliance top and bottom of the plenum (outside the filters). From those readings apply the appropriate links over the appliance.

If the building is equipped with an approved fire alarm system, the fire suppression system is required to be connected. The activation should send the general alarm, zone location and activate the audible and visual components of the alarm.

Signage: I believe one of the most important signage pieces is "The System" pictograph. This is the final/approved system as installed and tested. I recommend not installing the pictograph until the heat signature test is completed and the approved links are determined. Require the pictograph to be signed by the AHJ and laminated. Have the sign pictograph installed by the control head.

Heat tape discolored indicating maximum temperature



Additional signage includes operation of "**the system**" before the use of the fire extinguisher. Confirm the correct size, type and weight of fire extinguisher for system type. The fire extinguisher needs to have the same extinguishing solution as the system.

Documentation in my opinion is the most important of all. Having the as-builds for the system and any notes, cut sheets and manufactures information is a critical piece for the future of any system. As we move about in our careers, leaving good documentation helps those that fall in after we leave.

Service or Confidence Testing: For the most part, with AHJ's current workloads, I do not believe that many go out and inspect "**the system**" after a service or confidence test. I for one, always counted on the

submitted documents from the service company to inform me of the system condition and operation. From experience, I will say that was a mistake for my organization. I understand where the liability sits when the documentation is submitted

and signed, but my question to AHJ's is it in our best interest? Have we truly provided life safety by looking at a piece of paper that may or may not be factual?

I found by using a third-party data collection, that reports being submitted were not accurate in many cases. In fact, some reports were so falsified that criminal charges were pursued. Items I found when doing spot inspections:

1. Electrical shunts disconnected.
2. Gas shunts disconnected or held open with a tool or wedge, even removed.
3. New appliances added without proper nozzle or link coverage.
4. Mixing of parts (using of other system parts) including nozzles, fusible links, pull station components and even control head components.
5. Hood modifications not listed or approved.
6. Hydro's not completed.
7. And much more!!!!

Then you have the cleaning companies. The third-party reporting does assist with the documentation needs as long as the AHJ requires photos of the entire system to show all areas have been cleaned. Many companies are hired to clean what they see, which is far short of what the minimum cleaning entails.

I hope the information offered over this 3-part series was both useful and helpful. As we continue to evolve in the world of risk reduction, we will be confronted with challenges and even short comings because of the speed in which changes present themselves. Training and peer support from those in our industry is the key to our success.

WPFE News – Ben Scherer

Community Risk Reduction Week - Jan 18-24, 2021

How would you like to gain the support of your community and reduce the risk and threats (911 calls) that keep you up at night? There is a renewed effort for an old idea growing in the fire service. The idea that the fire service is here to take care of the community that supports them. In the beginning, the fire service was comprised of volunteers from the community. When something significant happened in the community the fire service was there because they were the community. Over the years, the fire service has become specialized and focused on response to fires and fire prevention through codes and inspections. As the fire service continues to take on "MORE"; EMS, Haz-mat, technical rescue, whatever your more is, we need to ask ourselves, is it more, or is the community asking us to re-engage and become part of the community again? There is help. This renewed effort, labeled Community Risk Reduction, is a template for re-engaging in your community. The best part is that it can help make your community safer without you doing all the work! While Emergency Response is a big part of CRR, just as necessary are Engineering, Enforcement, Economic Incentives, as well as Education. NFPA 1300 is an excellent guide on getting engaged in your community through a Community Risk Assessment and how to deploy a CRR plan in your community. A great way to make your department familiar with CRR is to check out the #CRRWEEK movement. The official week is January 18-24, 2021. You can find resources at CRRWEEK.ORG

Code Corner – Jon Napier & Traci Harvey

A summary of State and National code related happenings and schedules:

Washington State Codes – Jon Napier, CFO, FM, Puget Sound Regional Fire Authority

- The adoption date for the 2018 Codes will go into effect on February 1st, 2021, by the State Building Code Council.
- The State Building Code Council will be accepting proposals for statewide amendments in the spring to the 2021 International Fire Codes. We will send the deadlines when they are posted. Expect the proposals to be due by the end of the first quarter.

- We want to thank the following members for filling many of the State Building Code Technical Advisory Group positions:
 - International Fire Code – Jon Napier (Puget Sound Fire), Ken Brouillette (Seattle Fire), Corey Thomas (Renton RFA)
 - International Building Code - Ken Brouillette (Seattle Fire), Corey Thomas (Renton RFA)
 - International Residential Code – Steve Riggs (Burlington Fire)
 - International Mechanical Code – Ken Kiker (Renton RFA)

ICC Codes - Traci Harvey, P.E., Spokane Valley Fire Department – Retired SBCC Fire Service Representative. Current ICC Fire Code Action Committee (FCAC) member.

- The 2021 I-Codes are available on the ICC website; both for purchase and in the free viewer
- cdpACCESS is open for proposal submittal (www.cdpACCESS.com)
- The FCAC is finalizing its proposals for the 2024 fire code.

The FCAC process is wrapping up the process and is no longer accepting new proposal submittals. If you have a proposal, fixing an error, clarifying, or something new, the process is not closed. The ability for groups or individuals to submit their proposals for the process is still open through cdpACCESS.

ICC Codes – Group A Calendar of Events

- January 11th, 2021 – Group A Code Proposal Deadline
- March 1st, 2021 – Web posting of proposed changes
- April 11th – May 21st, 2021 – International Code Council goes virtual for the 2021 Committee Action Hearings
 - Due to the hearings being a highly collaborative process, staff, moderators, and committee members will have the option to gather in a central location for the duration of the process while adhering to social distancing guidelines. Speaking participants and those interested in listening to the proceedings will be able to join virtually. As done in previous years, the hearings will be available to view for free through a live stream.

New Association Software Implementation – Jon Napier

With the passage of the recent by-laws at the Association Meeting, the association identified a need to implement new software to manage membership at the agency level. The association implemented Personify software that provides a new website, membership and event management, and integrated point of sale with the website.

In December, emails were sent to our existing and past members to create the new membership list. This list was imported into the new software, and emails were sent explaining the new membership process and passwords to these individuals. Each agency membership will now have an administrator who will manage the individual memberships for their staff. Each member will have their own membership identification and will be related to their agency bundle membership.

The annual membership dues will now be handled within the new Personify software with online credit card payments. This is a significant change since the Washington Fire Chiefs had historically provided this service for us. We hope that this will streamline our management of renewals for the membership.

New Website Unveiled - wsafm.com

Welcome to the new WSAFM website. The Board of Directors is excited to open a new chapter in the operations of the Association with a website that will become our central source for not only activities, but for registering for classes and being able to pay for memberships. As the website is expanded, there are other opportunities for WSAFM to grow with the times. The world has changed, and we have to do so also. As we have seen recently, virtual meetings are becoming the new normal, as is the immediate exchange of information and data.

We invite you to take a look, kick the tires (so to speak), and give the website a test drive. Suggestions and comments are always welcome, as we want this to be THE resource the members go to first.

Upcoming Trainings:

2018 IFC Code Update Online Class | Thursday, January 28, 2021

EVENT FEE*: Members \$125 | Non-Members \$175

DETAILS:

Stay up to date with the latest changes to the Fire Code! As most of you are aware, the 2018 International Fire Code goes into effect July 1st, 2020 in the State of Washington. This one-day course will cover code changes from the 2015 to the 2018 edition of the International Fire Code. In addition, a review of the latest Washington State amendments to the Fire Code will be covered. 0.65 ICC Preferred Provider CEU's will be awarded to those attending!

2021 Webinar Series

EVENT FEE*: Members – Included in Annual Membership | Non-Members \$1,200

DETAILS:

WSAFM will be providing 90-minute monthly webinars on selected IFC topics. The annual webinar series is now included in the annual membership dues and all members of your agency will have access to this training at no additional charge. Members will be contacted with access information.

Tony Doan of the Washington Code Academy will be the instructor for the webinar's series.

[Registration Link to both trainings – Click Here](#)

2020 Awards

The WSAFM Board of Director's wishes to honor and congratulate the following individuals for their service to Community Risk Reduction and the Association:

Fire Marshal of the Year – Fire Marshal Tom Maloney

Member of the Year – Robert Ferrell

Life Member Award – Greg Rogers

Board Member Service Award 2008 – 2020 – Robert Bradley

Resources

There are many resources available at little to no cost to AHJs as well as to the public.

ICC has the current (and some historical) codes available online. There are limitations to what you can do with the codes, but they serve as a suitable location for reference. These are located at:

<https://codes.iccsafe.org/public/collections/I-Codes>

In addition, the State Building Code Council provides printable insert pages for the ICC Codes of the Washington State Amendments. These can be located at:

<https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=14>

Do you have a question on the code, or just want to be sure you have a consistent interpretation? We will be providing contacts of several members who participate in the National and State development of the Codes who can provide the information you need to make an informed code decision.