



# Range Hood Fire Suppression System Requirements



**Permit/Design Standards:** Section 105.7.1 of the Washington State Fire Code (WSFC) requires a Construction Permit to install or modify an automatic fire-extinguishing system. Pursuant to 904.2.2 of the International Building Code (IBC), these systems are required to protect any Type I hood and are in addition to the provisions of chapters 506 & 507 of the International Mechanical Code (IMC). Section 904.12 of the WSFC requires any work performed under said permit to be in accordance with UL Standard 300, NFPA 17A, the manufacturer's instructions and be listed and labeled for the intended application. The purpose of this document is to provide the reader with a summary of the information required in a submittal package to this office for Range Hood Systems and the acceptance test requirements. *Failure to include any/all information identified here may result in delays if the plans are rejected and require resubmittal.*

**Designer Certification Requirements:** Section 904.1.1 of the WSFC requires personnel who perform design, installation, inspection, testing or maintenance on kitchen suppression systems to possess an ICC/ National Fire Equipment Distributors (NAFED) certification specific to the system they are working on (I.E. Pre-engineered, Engineered or Pre-engineered Industrial).

**Submitting Plans:** The preferred method for submitting plans is through the County SMARTGOV portal however, plans may also be submitted in person. If so, one paper copy and one flash drive of all documents shall be provided. Each system served by a tank or manifolded tanks shall be considered a single system and constitute one submittal.

## **Electronic Submittal File Standards**

**Acceptable File Types:** Plans, calculations, specifications and supporting documents shall be uploaded or submitted as a PDF file.

**Document Orientation:** All plans must be uploaded in a "Landscape" format (horizontal position). All other documents can be in the "Portrait" format. Plans size shall be large enough to accommodate an 18"=1'0" scale isometric drawing along with the other information identified in the *Plans* section below.

## **Documentation**

The following documents are required at the time the application is submitted for the construction permit:

- A completed *Mason County Fire Protection System Permit Application* form
- An electronic copy of the ICC/NAFED certificate for a Pre-Engineered Kitchen Fire Extinguishing Systems issued to the designer of the system.
- An electronic copy (or link) to the manufacturer's design and installation manual.
- Manufacturer's technical data sheets.
- Appliance technical data sheets.
- Documentation that demonstrates the applicable permits for the hood and ventilation system have been secured from the local Building Dept. and State L & I.

STD: <b>7</b>	MASON COUNTY FIRE MARSHAL <a href="https://masoncountywa.gov/community-services/fire-marshall/index.php">https://masoncountywa.gov/community-services/fire-marshall/index.php</a>	Adopted: <b>3/6/2024</b>
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## Plans

Isometric plans large enough to accommodate a min. 1/8"=1'0 scaled drawing as well as the following information shall be included in any plans submitted:

- Name and location of protected premises, owner, and occupant (where applicable)
- Name and contact information of installer or contractor
- The system location in the building
- Cooking appliance locations and dimensions (in inches)
- Type of nozzles
- Nozzle location and height over appliances (in inches)
- Calculated flow point chart
- A piping diagram to include the pipe type, size, length and fittings
- Extinguishing agent tanks
- Fusible link locations
- Exhaust duct size
- Plenum dimensions and filter bank type (I.E. V-Bank or Single Bank)
- Manual pull station location (> 10' but < 20') from exhaust system and in egress pathway
- Class K fire extinguisher location
- If new construction and a fire alarm is being installed in the building, a note indicating whether it will be a deferred submittal
- A note on the plan indicating the system shall be designed, installed, serviced and maintained in accordance with NFPA 17A, NFPA 96 and the manufacturer's instructions.
- Sequence of operation including fuel/electricity/exhaust/make-up air interlocks/fire alarm integration.

***A copy of this plan is required to be laminated and posted on the exhaust hood or system cabinet.***

**Acceptance Test Procedure:** To be finalized, every range hood system shall be subject to an acceptance test which includes the following:

- Verification the system components match those on the approved plans
- Verification of the type and size of appliances
- Verification of the nozzle types and distance from appliances, plenum and duct
- Performing and successfully passing a "Ballon" test
- Having a serviced Class "K" extinguisher mounted at the location identified on the plans
- Having a set of the approved plans laminated and permanently affixed to the exhaust hood or cabinet.

***NOTE:*** Prior to conducting an acceptance test, a *Wet Chemical System Acceptance Test Report* as found in the Appendix of NFPA 17A may be required to be submitted to this office.

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