

Introduction to the Washington State Building Code Council

An emergency code change to WAC 51-54A-0904.1.1 is critical!

Jamie Knowles – Industry Relations Manager

- Amerex Corporation
- FEMA – Fire Equipment Manufacturers Association



Who have we organized this effort with?

- **NAFED** – National Association of Fire Equipment Distributors
- **ORFED** - Oregon Fire Equipment Distributors
- **Kidde-Badger** – Carla Hill
- **JCI** – Nick Stiltner

Licensed in Washington Fire Equipment Distributors

- **Pye-Barker** – Burlington and Portland.
- **Alexander Gow**, Seattle and Portland.
- **Cintas** – Auburn and Vancouver.
- **AAA Fire** – Seattle
- **PSI Integrated** – Seattle, Milton, Spokane, Pasco
- **Hiller** – Spokane
- **Metro Safety and Fire** – Portland

Washington State Building Code Council

An emergency code change to WAC 51-54A-0904.1.1 is critical!

- **NICET is the Wrong Certification for Pre-Engineered Dry Chemical Systems**
 - Technicians would be getting certified in Special Hazards when they only work on the Pre-Engineered Dry Chem and Kitchen Systems.
- **Restriction of Trade/Commerce** – This code change will disenfranchise the existing work force.
- **Dangerous Change** – Lowers Public safety by removing all Currently Certified Techs from this discipline.
- **Adds cost without adding value**– NICET Certified Special Hazards Technicians make a much higher wage than Kitchen and Dry Chemical Pre-Engineered Techs.
- **To our knowledge, Washington State would be the only state in the country requiring NICET for Pre-Engineered Dry Chemical system Certification.**

Washington State Building Code Council Certification of Pre-Engineered Dry Chemical System Technicians

WAC 51-54A-0904.1.1, “Certification of personnel for alternative fire-extinguishing systems” is slated to be implemented July 1, 2024. This code change will require technicians that design, install, test or maintain pre-engineered dry chemical systems to have a NICET Level 2 or 3 in Special Hazards, which does not address pre-engineered dry chemical systems. Although we strongly support certification of all Fire Technicians, this code change is requiring the wrong certification for this discipline. The remainder of this presentation will support that claim and suggest the available paths forward as was requested by the members of the SBCC.

Washington State Building Code Council

This WAC change is Effective July 1st, 2024

WAC 51-54A-0904 Alternative automatic fire-extinguishing systems.

(Effective July 1, 2024.)

904.1.1 Certification of personnel for alternative fire-extinguishing equipment. Personnel performing system design, installation, maintenance, programming or testing on automatic fire-extinguishing systems, other than automatic sprinkler systems, shall possess the appropriate National Institute for Certification in Engineering Technologies (NICET) *Special Hazards Suppression Systems* certification.

EXCEPTION:

A current ICC/NAFED certification for preengineered kitchen fire extinguishing system technician is allowed in lieu of NICET Level II or higher in *Special Hazards Suppression Systems* for the design, installation, inspection/testing or maintenance on preengineered kitchen suppression systems.

Washington State Building Code Council

This WAC change is Effective July 1st, 2024

EXCEPTION:

A current ICC/NAFED certification for pre-engineered kitchen fire extinguishing system technician is allowed in lieu of NICET Level II or higher in Special Hazards Suppression Systems for the design, installation, inspection/testing or maintenance of pre-engineered kitchen suppression systems.

This exception for kitchen fire extinguishing systems is appropriate because NICET does not address kitchen fire extinguishing systems.

The ICC/NAFED Certification is the only nationally recognized kitchen fire system certification.

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Effective July 1st, 2024

904.1.1.1

Design. All construction documents shall be reviewed by a **NICET Level III in special hazard suppression systems** or a licensed professional engineer (PE) in the state of Washington prior to being submitted for permitting. The reviewing professional shall submit a stamped, signed, and dated letter; or a verification method approved by the *fire code official* indicating the system has been reviewed and meets or exceeds the design requirements of the state of Washington and the local jurisdiction.

Only 4 People in Washington hold this Certification.

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Effective July 1st, 2024

904.1.1.2 Installation. Installation not defined as "electrical construction trade" by chapter 19.28 RCW or "Fire Protection Sprinkler Fitting" by chapter 18.270 RCW, shall be completed by or directly supervised by a **NICET Level II or higher in special hazards suppression systems**. Supervision shall consist of a person being on the same job site and under the control of a NICET Level II or higher in *special hazards suppression systems*.

904.1.1.3 Testing/maintenance. Inspection, testing, commissioning, maintenance, and programming not defined as "electrical construction trade" by chapter 19.28 RCW or "Fire Protection Sprinkler Fitting" by chapter 18.270 RCW, shall be completed by a **NICET Level II or higher in special hazards suppression systems**.

Only 8 People in Washington hold this Certification.

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Suggested Amendments by FEMA in **Yellow**

Submitted September 6th, 2023

- **WAC 51-54A-0904**
- **Alternative automatic fire-extinguishing systems.**
- **904.1.1** Certification of personnel for alternative fire-extinguishing systems. Personnel performing system design, installation, maintenance, programming or testing on automatic fire-extinguishing systems, other than automatic sprinkler systems, shall possess the appropriate National Institute for Certification in Engineering Technologies (NICET) Special Hazards Suppression Systems certification.
- **EXCEPTION 1:** A current ICC/NAFED certification for Pre-Engineered Kitchen Fire Extinguishing Systems is allowed in lieu of NICET Level II or higher in Special Hazards Suppression Systems for the design, installation, inspection/testing or maintenance on pre-engineered kitchen fire extinguishing systems.
- **EXCEPTION 2:** A current ICC/NAFED certification for Pre-Engineered Industrial Fire Extinguishing Systems is allowed in lieu of NICET Level II or higher in Special Hazards Suppression Systems for the design, installation, inspection/testing or maintenance on pre-engineered dry chemical fire extinguishing systems.

Washington State Building Code Council Engineered Dry Chemical Systems vs Pre-Engineered Dry Chemical Systems



NFPA 17 Standard for Dry Chemical Extinguishing Systems, 2024 Edition

3.4.2 Engineered Systems.

Those systems requiring individual calculation and design to determine the flow rates, nozzle pressures, pipe size, area, or volume protected by each nozzle, quantities of dry chemical, number and types of nozzles, and their placement in a specific system.

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Engineered Dry Chemical Systems vs Pre-Engineered Dry Chemical Systems



3.4.5 * Pre-Engineered Systems.

Those systems having predetermined flow rates, nozzle pressures, and quantities of extinguishing agent and having specific pipe size, maximum and minimum pipe lengths, flexible-hose specifications, number of fittings, and number and types of nozzles.

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Categories of Fire Protection—for Context

- **Fire Sprinklers** – Water-based building fire systems.
- **Fire Alarms** – Electrically based detection and notification systems.
- **Engineered Special Hazard Systems** – Fire Systems that are engineered to protect a specific hazard using many types of detection and fire extinguishing agents; halogenated agents, Carbon Dioxide, inert agents, water mist, hybrid agent systems, explosion suppression and dry chemical systems.
- **Pre-Engineered Fire Suppression** – High volume, repeatable fire systems for hazards like commercial cooking, paint spray operations and on/off road vehicle protection.
- **Portable Fire Extinguishers** – Handheld and Wheeled Fire Extinguishers.

Washington State Building Code Council Technician Credentialing & Product Types

Water-Based Systems (Sprinkler)

- NICET
- NFPA
- ASSE
- CSA

Fire Alarm Systems

- NICET
- ESA
- CSA

Engineered Special Hazard Suppression Systems

- NICET
- NAFED

Pre-Engineered Suppression Systems

ICC-NAFED

Portable Fire Extinguishers

ICC-NAFED



Historical nationally accredited technician certification programs have been NICET and ICC-NAFED within the specific category disciplines. More recently others - NFPA, ASSE and ESA have entered the market w/in their respective product categories.

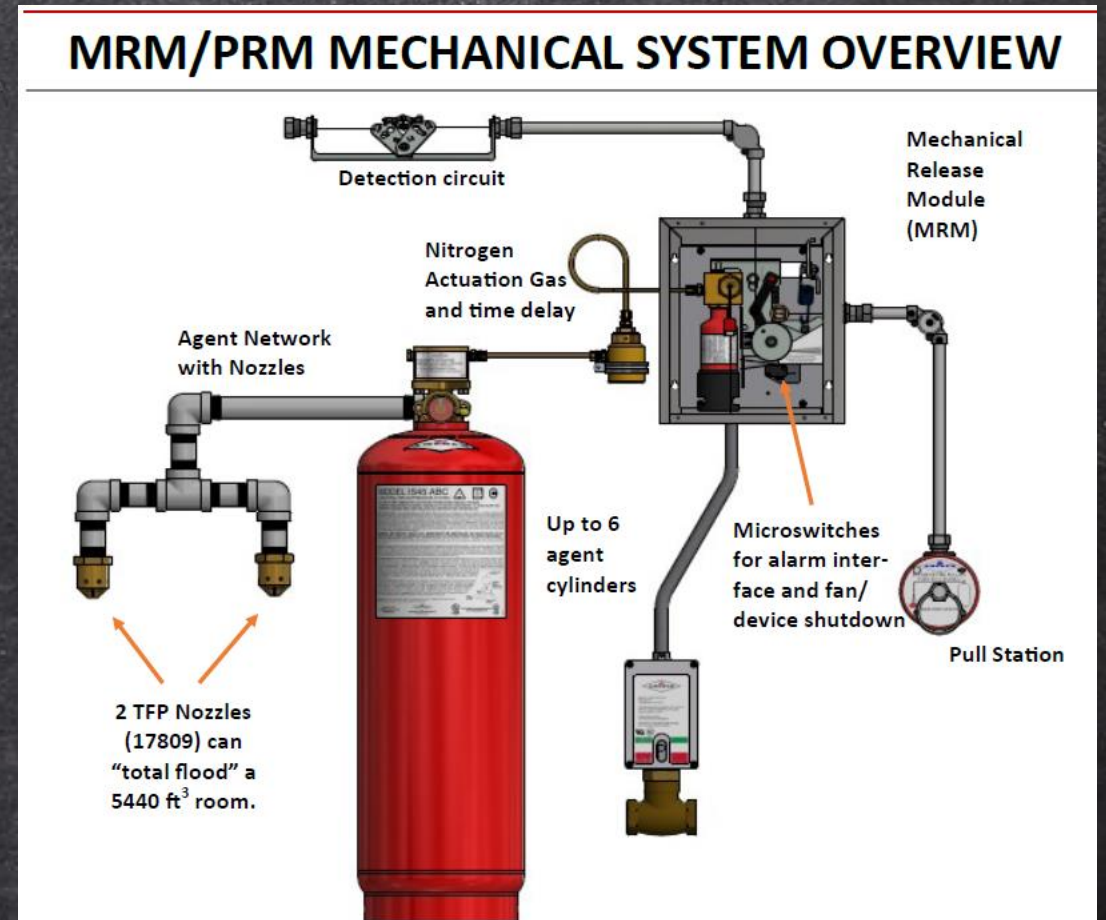
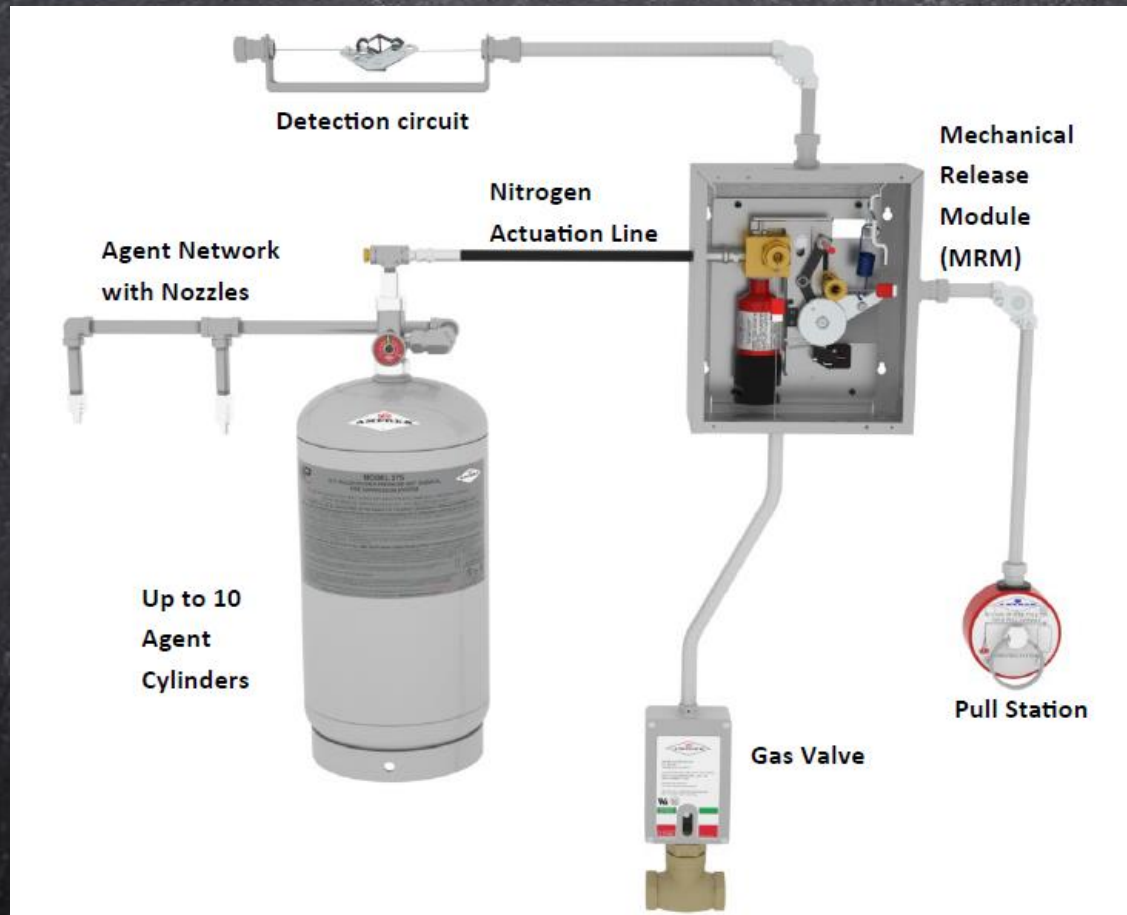
Washington State Building Code Council

An emergency code change to WAC 51-54A-0904.1.1 is critical!

- **NICET is the Wrong Certification for Pre-Engineered Dry Chemical Systems**
 - Technicians would be getting certified in Special Hazards when they only work on the Pre-Engineered Dry Chem and Kitchen Systems.
- **Restriction of Trade/Commerce** – This code change will disenfranchise the existing work force.
- **Dangerous Change** – Lowers Public safety by removing all Currently Certified Techs from this discipline.
- **Adds Unneeded Labor Cost in this highly competitive market** – NICET 2&3 Technicians make a much higher wage than Kitchen and Dry Chemical Pre-Engineered Techs.
- **To our knowledge, Washington State would be the only state in the country requiring NICET for Pre-Engineered Dry Chemical system Certification.**

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Same Detection and Control Mechanisms for Pre-Engineered Kitchen and Dry Chemical



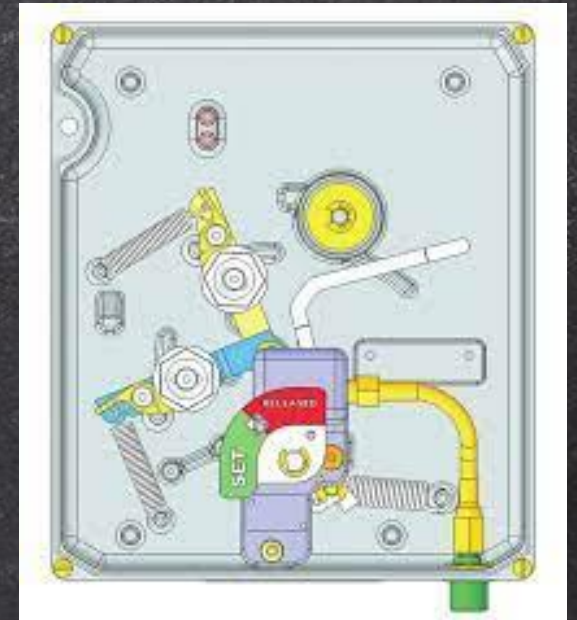
Washington State Building Code Council Same Detection and Control Mechanisms for Pre-Engineered Kitchen and Dry Chemical



Pyro-Chem Kitchen Knight 2 and Monarch



Badger/Kidde Range Guard and Industry Guard



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Pre-Engineered Kitchen and Dry Chemical Controls are Listed to the same UL 1254 Standard

- **UL 1254** - Pre-Engineered and Engineered Dry and Pre-Engineered Wet Chemical Extinguishing System Units
 - UL 1254 is a pre-requisite of UL300
- **UL 300** - Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment
 - **WAC 904.13** – Commercial Cooking Systems. “Pre-Engineered automatic dry and wet chemical extinguishing systems shall be tested in accordance with UL300 and listed and labeled for the intended application.”

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Factory Certifications for Pre-Engineered Systems

- **Each Manufacturer requires at least a 3-year Product Certification** to be eligible to purchase, design, install or maintain these pre-engineered kitchen and dry chemical suppression systems.
- **Amerex KP and IS Certification Training** – one 2-day class for both.
- **Kidde/Badger, Range Guard and Industry Guard** – Individual classes that are conducted concurrently.
- **Pyro-Chem Kitchen Knight 2 and Monarch** – Individual classes that are conducted concurrently.

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ICC/NAFED Certifications

- **ICC Kitchen Systems – Scope of Certification**
- **The pre-engineered kitchen fire extinguishing system technician** is responsible for performing inspection, testing, and maintenance on pre-engineered kitchen fire extinguishing systems. He/she shall possess an understanding of standard practices, guidelines, capabilities, and limitations of pre-engineered kitchen fire extinguishing systems. The technician shall have in-depth knowledge of hazards inherent in different occupancies and be familiar with standard industry safety practices. In addition, he/she shall demonstrate a thorough understanding of and the ability to apply codes, regulations, manufacturer requirements, and standards regarding the systems.

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ICC/NAFED Certifications

- **ICC pre-engineered Industrial – Scope of Certification**
- **The pre-engineered industrial fire extinguishing system technician** is responsible for performing inspection, testing, and maintenance on pre-engineered industrial fire extinguishing systems. Such systems include, but are not limited to, vehicles, paint booths, motor vehicle fueling service dispensing stations, flammable liquid storage and clean agent applications. The technician shall have in-depth knowledge of hazards inherent in different occupancies and knowledge of the chemistry of fire and extinguishing agents, as well as general knowledge of hoods, ventilation and exhaust systems. In addition, the technician shall be familiar with standard industry safety practices and shall possess an understanding of standard practices, guidelines, capabilities, and limitations of pre-engineered kitchen fire extinguishing systems. In addition, the technician shall demonstrate a thorough understanding of and the ability to apply codes, regulations, manufacturer requirements, and standards regarding the systems.

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NICET Level 2, Special Hazards



NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES

www.nicet.org
888-476-4238

Special Hazards Systems

Level II Content Outline

Associate Engineering Technician

The candidates for NICET certification at Level II in Special Hazards Systems should have the knowledge, experience and basic skills needed to work in the industry. Under limited supervision of a qualified technician, they inspect, maintain, repair, install, perform functional tests on, commission, and apply basic specifications and standards to the placement and configuration of components in gaseous, **dry**, and wet agent systems. Level II technicians have at least 2 years of experience in special hazards systems.

- **The only place this content outline mentions “dry” is in the description above, there are no actual line items or questions asked about “dry chemical”.**
- <https://www.nicet.org/certification-programs/electrical-and-mechanical-systems/special-hazards-systems/>

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NICET Level 3, Special Hazards



NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES

www.nicet.org
888-476-4238

Special Hazards Systems

Level III Content Outline

Engineering Technician

The candidates for NICET certification at Level III in Special Hazards Systems should have the knowledge, experience and skills needed to work in the industry. They design gaseous, dry, and wet agent systems. They prepare submittals, estimates, and project reports. They manage a special hazards project that requires them to inspect, maintain, repair, install, and test complex systems. Level III technicians have at least 5 years of experience in special hazards systems.

- **The only place this content outline mentions “dry” is in the description above, there are no actual line items or questions asked about “dry chemical”.**
- <https://www.nicet.org/certification-programs/electrical-and-mechanical-systems/special-hazards-systems/>

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KEY POINTS TO CONSIDER

- Pre-Engineered Fire Technicians and Engineered Fire System Technicians are different people, with **different expertise** and **different certifications** that sell, design and Install **different Products**.
- Pre-Engineered Kitchen Systems use the **same detection and control** Mechanisms as Pre-Engineered Dry Chemical Systems.
- ICC/NAFED Certifications are targeted to pre-engineered disciplines.
- NICET 2 & 3 Content outlines **do not address Pre-Engineered Dry Chemical Systems**
- NICET Special Hazards, although a good certification is the **WRONG** certification for this discipline.
- The implementation of this WAC Code Change on July 1, 2024 will make all technicians that have been selling, designing and Installing Pre-Engineered Dry Chemical systems, **Prohibited by law from working in the business they have always worked in.**

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An Emergency Code Change is Needed!

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