

CHAPTER 1

GENERAL INFORMATION

1-1 INTRODUCTION

The Range Guard Wet Chemical System provides fire protection for commercial kitchen applications such as appliances and ventilation.

The Wet Chemical system holds UL and ULC listings as a pre-engineered system.

Systems shall be designed and implemented according to the following:

- NFPA Standard 17A, "Standard for Wet Chemical Systems"
- NFPA Standard 96, "Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations"
- Other applicable NFPA standards as required for a particular application and design, including, but not limited to, NFPA 70 (NEC), and NFPA 72, Fire Alarm Standard and CSA
- This Design, Installation, Operation, and Maintenance Manual (DIOM)
- Any other standards enforced by a local Authority Having Jurisdiction (AHJ)

Configurations in Chapter 3, System Design, are tested and listed to Underwriters Laboratories (UL) Standard 300, 1994 Edition, unless otherwise noted, and Underwriters Laboratories of Canada ORD 1254.6.

1-2 CLASSIFICATION OF FIRE

The classification of fire is defined in NFPA 1, Section 3.3.102 as the following:

- Class A: Surface Type Fires; wood or other cellulose-type material (ordinary combustibles)
- Class B: Flammable liquids
- Class C: Energized electrical equipment
- Class D: Combustible metals (such as magnesium, sodium, zirconium, potassium, and titanium)
- Class K: Combustible cooking media (vegetable or animal oils and fats)

Note: Range Guard Wet Chemical system is suited for Class K type of fire. (This system does not supersede the requirements for portable fire extinguishers as defined in NFPA 10.)

1-3 GENERAL CHARACTERISTICS OF THE BADGER SYSTEM

The Range Guard System is a wet chemical fire suppression system with one type of agent. The system is capable of encompassing a wide variety of application requirements.

The system utilizes stored pressure agent cylinders. Stored pressure cylinders:

- Remain free of contamination
- Provide a smooth flow throughout the discharge

The cylinders are powder-coated, welded mild-steel shell conforming to DOT/TC specification 4BW/4BA construction and NFPA standards. The valve is forged brass with nickel plating. The plating and cylinder coating makes it corrosion resistant.