# Dry Chemical Fire Suppression System Application

In accordance with the New York State Fire Prevention and Building Code plan submittals and installation shall be in accordance with the requirements detailed and contained in the National Fire Protection Association (NFPA) Chapter 17 Standard - 2009 Edition (Standard for Dry Chemical Extinguishing Systems) and the current manufacturer specifications.

The undersigned represents that this application for a permit as described herein will be in accordance with all ordinances of the Town of Brighton and the Fire and Building Code of New York State and that any plans or specifications submitted with this application are the plans or specifications relating to this permit and no other.

**Refer to Dry Chemical Fire Suppression Installation Plan Review and Permit Submittal Requirements**

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Dry Chemical Fire Suppression Plan Review Checklist

Purpose

This information packet has been developed in an effort to provide the highest level of service to the residents and visitors of the Town of Brighton. The major goal of plan reviews conducted by the Office of the Fire Marshal is to ensure the design of dry chemical fire suppression systems meet the minimum requirements of the adopted codes and ordinances. To meet this goal, the submitted plans and supporting documentation must contain the information needed to conduct a thorough review.

Scope

This packet outlines the minimum requirements set forth in the Fire Code of New York State local amendments, and departmental policies and procedures as they relate to the installation dry chemical fire suppression systems. This packet is not intended to provide an all-inclusive listing of submittal and inspections requirements, as it would be virtually impossible to cover all situations. This packet only covers requirements set forth in the latest edition of applicable NFPA standards current adopted by New York State. Also included in this packet is information covering items required to be included on the working drawings and supporting documents.

Administration

A design engineer or licensed design professional will typically provide a preliminary design within the construction documents that will contain sufficient detail to identify the scope of the work and allow for competitive bidding. The design engineer’s or licensed design professional’s responsibilities include but are not limited to:

1. Evaluate the broad range of hazards and fire protection schemes required to develop a workable, integrated fire sprinkler solution.
2. Provide design documents as outlined in this guideline.
3. Review shop drawings and submittals to ensure conformance with design documents and applicable codes and standards.
4. Monitor the installation of fire protection systems and participate in their acceptance and commissioning.

Construction Documents

Fire Protection drawings and specifications prepared by the design engineer or licensed design professional and included in the bid documents constitute a ‘preliminary design’ and shall be sealed by the design engineer or licensed design professional of record registered in New York State as required by the New York State Department of Education Law.

This ‘preliminary’ design is a basis for bidding and may be referenced to herein as ‘construction documents’. A basic understanding of hazard and occupancy classifications; and a working knowledge of fire protection codes and standards is expected from the design engineer or licensed design professional of record.

Construction Documents should comply as applicable with NFPA 17, NFPA 17A, NFPA 96, Fire Code of New York State and this guideline.
Details such as piping sizes and head locations are not required to be part of the Construction Documents. Such layouts when provided shall be denoted as being provided for general coordination and information only.

**Review and Approval of Shop Drawings and Calculations**

The following procedure for review and approval of working shop drawings is applicable and shall be included in the construction documents as necessary to ensure the Dry Chemical Fire Suppression Installation contractor understands their responsibility.

Working shop drawings can be produced by technicians, designers or contractors after successfully passing the “Special Hazards Fire Suppression Systems Examination” administered by National Society of Fire Engineering. However, the working shop drawings, hydraulic calculations, and product data shall be reviewed and approved by the design professional or licensed design professional in responsible charge prior to submittal to the Office of the Fire Marshal.

Working Shop drawings shall include and be in accordance with working plan requirements of Chapter 904 of Fire Code of New York State and NFPA 17.

Product data should include and identify all material, equipment, and accessory selections to be installed.

The Dry Chemical Fire Suppression Installation contractor must provide all necessary materials and labor for a system fully compliant with all applicable NFPA requirements and the construction documents.

Any discrepancies should be brought to the attention of the Specifying Engineer or licensed design professional of record.

The Specifying Engineer or licensed design professional has primary responsibility for review and approval of fire suppression system working shop drawings and hydraulic calculations. The Specifying Engineer or licensed design professional review shall determine compliance with applicable codes and standards and the project contract documentation.

Accompanying the shop drawings shall be a stamp on the drawings or sealed letter from the design professional in responsible charge stating the shop drawings have been reviewed and have been found in general compliance to the design document(s).

If comments by the design engineer or licensed design professional are limited, the specifying engineer may, at their discretion, forward the shop drawings to the Office of the Fire Marshal in parallel with comment resolution by the Kitchen Fire Suppression Installation contractor.

All comments made by the specifying designer or licensed design professional shall be forwarded to the Office of the Fire Marshal with the review package including comments from previous review iterations, if any.

As noted above the documents outlining the design strategy must be stamped by the registered Engineer/Architect and the shop drawings and other supporting documents must bear a SHOP DRAWING REVIEW stamp indicating review and approval from the originating design engineer or licensed design professional.

Your compliance with these requirements will enable us complete the review process faster and more efficiently with less rejections due to improper submittals.
Specifications for Plan Submittal

Preferred Construction Documents Size - Sheet "D" 24” X 36” (Chief Fire Marshal may approve other sizes by request)

Scale or suitable dimensions
Copies shall all be the same size, drawn in indelible ink.

Sheets that are cut and pasted, taped, or that have been altered by any means (pen, pencil, marking pen, etc.) will not be accepted for plan review.

Plans that are not legible may be rejected as unacceptable for plan review purposes.

Distinguish new from existing equipment with “N” and “E” subscripts.

All Applicable codes: Ensure the current adopted codes and editions are listed on the plans.

Authority Having Jurisdiction (Town of Brighton – Office of the Fire Marshal)

A copy of City of Rochester Fire Department Extinguisher license is required for the installing company

A copy of company’s liability insurance with the Town of Brighton listed as the “Certificate Holder”.

The following information shall be provided on the plans:

a. The title block shall contain the following:
   1. Location of the installation
   2. Name and complete address of the business
   3. Name and complete address of the installing company
   4. Licensing information

Scope of work: Brief project description as it pertains to your plan submittal.

General

All systems shall meet NFPA 17 and manufacturer specifications

Working plans shall be submitted for all engineered and pre-engineered systems.

Manufacturer’s equipment specifications shall be submitted for all engineered systems.

Engineered systems shall be drawn to an indicated scale or be suitable dimensioned.

Plans shall contain sufficient detail to evaluate the hazard and to evaluate the effectiveness of the system.

Details shall be provided on the materials involved, the location and arrangement and the exposure to the hazard.

Plans shall show the size, length and arrangement of connected piping, or piping and hose.

A description and the location of all nozzles shall be shown.

A plan view of the protected area showing the enclosure partitions, full and partial height; the agent distribution piping system including the location of the agent storage containers and amount of agent, piping and nozzle types; types of pipe hangers and rigid pipe supports; the detection system, the alarm device locations and mounting height.
Calculations and flow rates for the nozzles shall be shown.

Information indicating the location and function of detection devices, operating devices, auxiliary equipment and electrical circuitry, if used.

All apparatus and devices shall be clearly noted on the plans.
Both a manual and automatic means of activation shall be provided.
Where multiple manual actuators are installed for protection of separate extinguishing systems, they shall be clearly identified as to the hood being protected.
Distinctive audible and/or visual alarms shall be provided to indicate system operation and activation. Specifically, an audible/visual notification device shall be provided to indicate system operation, requiring personnel attention, and system recharge.

Cut Sheets/Specifications

Minimum of 1 set of manufacturer’s product information shall be provided. This is to include information on all devices that are part of or being connected to, the dry chemical fire suppression system; such as piping, valves, control heads, nozzles, fusible links, etc. Any cut sheets showing multiple installation/protection methods, the specific method used shall be highlighted.

Fire Extinguisher Requirements

§2205.5 Fire extinguishers. Approved portable fire extinguishers complying with §906 with a minimum rating of 2-A:20-B:C shall be provided and located such that an extinguisher is not more than 75 feet (22 860 mm) from pumps, dispensers or storage tank fill-pipe openings.

Final Acceptance Testing

The completed system shall be tested by trained personnel as required by the manufacturer’s listed installation and maintenance manual. The tests shall determine that the system has been properly installed and will function as intended.

Prior to requesting a final inspection of the dry chemical fire suppression system, the installer shall certify within a written statement that the system has been installed in accordance with the approved plans, manufacturer’s listed installation and maintenance manual. (An example can be provided upon request)

The system shall be tested utilizing an inert gas in lieu of the extinguishing product. Caps shall be provided at each nozzle location to ensure equal distributions of the gas. The test shall be activated by a heat detector and again activated by the manual pull station.

Fuse links are required to be a dated links. Dated links must be changed in accordance with the Fire Code of New York State and manufacturer specifications.

Utility Shut-off Test: All utilities connected to the fuel dispensing operations shall have automatic shut-off valves. Emergency Shut-off valve visible and accessible.
Please read the information below and sign before submitting your application

Your application shall be deemed complete only if this checklist is completed and submitted along with the submittal package.

Submittals not accompanied by a checklist will not be accepted.

Accuracy of the submittal package, including this checklist, is the responsibility of the applicant.

Failure to submit an accurate submittal package will be considered an incomplete application by the Plan Reviewer. An incomplete submittal will result in a **HOLD**.

If work is found to have commenced without approved plans and/or a proper permit, this office reserves the right to shut down any/all portions of the entire project deemed necessary to inspect, investigate and confirm that work has been done.

All installations and/or operations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Office of the Fire Marshal. If changes, alteration or deviation from the approved plans are not submitted for review and approval prior to final inspection by the Office of the Fire Marshal, then the installation permit **fees immediately double**.

When work for which a permit is required has been conducted without a permit or approval, a stop work is immediately posted and all permit **fees immediately double** upon proper application for plan review and due upon issuance of an new installation permit.

If any portion of the work performed is not clearly visible or readily accessible, you will be ordered to demolish, disassemble or remove any and all obstructions regardless of the cost incurred. Failure to comply will result in the suspension/revocation of any building or other permits related to the site.

In addition, it is understood that the installation of fire protection systems shall be made only by persons properly trained and qualified to install the specific fire protection system being provided. The installer shall certify to this authority that the installation is in complete agreement with the terms of the listing and manufacturer’s instructions and/or approved design plan.

I hereby apply for a Fire Protection System permit and I acknowledge that the information above is complete and accurate; that the work will be in conformance with the ordinances and codes of the Town of Brighton and the Building/Fire Codes of New York State; that I understand this is not a permit but only an application for permit and construction work is not to start without a permit; that the work will be in accordance with the approved plans.

___________________________________
Print Name

_________________________  _______________________________
Signature                  Date