Natrona County Fire Protection District
Office of the Fire Marshal
555 N Robertson Road · Casper, WY 82604
Phone (307) 234-4679 · Fax (307) 265-0353

Alternative Fire Suppression Submittal Requirements

As of January 1st 2026:

All submittals must be complete and to include the Owners Information Certificate filled out

FOAM (NFPA 11/ 11A)

The following information shall be included on the submitted plans or shall accompany them when applicable:

1. Name of Owner and Occupant, Name and Address of Contractor, Location including street address.
2. Full height cross section, or schematic diagram including structural member information for construction of dike and tank.
3. Size of supply main and whether dead end or circulating - if dead end, direction and distance to nearest circulating main - and water flow test results and system elevation relative to test hydrant.
4. Other sources of water supply with pressure or elevation.
5. Make, type, model and model number of discharge devices.
6. Pipe type and schedule of wall thickness, nominal pipe size and cutting lengths of pipe (or center to center dimensions).
7. Types of fitting and joints, and locations of all welds and bends. It shall be specified on the plans any sections to be shop welded and types of fittings or formations to be used.
8. Types and locations of hangers, sleeves, braces, and methods of securing foam chambers or other discharge devices.
9. All control valves, check valves, drain pipes, and test connections.
10. Piping provisions for flushing.
11. For hydraulically designed systems, the information on the hydraulic data nameplate.
12. Graphic representation of the scale used on all plans.
13. Hydraulic reference points shown on the plan with comparable reference points on the
14. hydraulic calculation sheets.
15. Back flow device information (manufacturer, size, type).
16. Sizes and locations of hydrants, showing sizes and number of outlets and whether outlets are to be equipped with independent gate valves. Whether house houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in flow tests shall be shown.
17. Sizes, locations and piping arrangements of fire department connections.
18. Physical details of the hazard, including the location, arrangement and hazardous materials
19. involved.
20. Type and percentage of foam concentrate.
21. Required solution application rate.
22. Submergence volume calculation.
23. Water requirements.
24. Calculations specifying required amount of concentrate.
25. Hydraulic Calculations - shall be prepared on forms that include a summary sheet, detailed worksheets, and graph sheet.

Summary Sheet shall include the following where applicable:

- Date
- Location
- Name of Owner and Occupant
- Name and Address of Contractor or Designer
- Description of hazard
- System design requirements including:
    - Design area (sqft)
    - Minimum rate of foam
    - Area per foam chamber or discharge device (sqft)
    - Total foam requirements as calculated including allowance for inside hose
    - outside hydrants and exposure protection (such as dike area protection).

Detailed worksheets shall include:

- Sheet number
- Foam chamber or discharge device description and discharge constant (K)
- Hydraulic reference points
- Flow in gpm
- Pipe size
- Pipe length (center to center of fittings) equivalent lengths of fittings and devices
- Friction loss of pipe and total friction loss between reference points
- Elevation head between reference points
- Required pressure at reference points.

Graph Sheet: shall be plotted on semi-exponential graph paper and include, water supply curve, foam system demand, and hose allowance.

26. Calculations specifying required amount of air.
27. CAFS flow calculations report.
28. Identification and capacity of all equipment and devices.
29. Location of piping, detection devices, operating devices, generators, discharge outlets, and auxiliary equipment.
30. Schematic wiring diagram.
31. Complete plans and detailed data describing pumps,drivers, controllers, power supply, fittings, suction and discharge connections, and suction conditions, including charts that specify head, delivery, efficiency and brake horsepower curves of pumps.

CO2 (NFPA 12)

The following information shall be included on the submitted plans:

1. Name and address of owner, address and location of system.
2. Name and address of system designer, name and address of contractor.
3. Plans shall include a graphical scale, or be clearly dimensioned.
4. Materials involved in the protected hazards.
5. Location of the hazards.
6. Enclosure or limits and isolation of the hazards.
7. Surrounding area that could affect the hazards.
8. Information and calculations on the amount of carbon dioxide.
9. Location and flow rate of each nozzle, including orifice code number and actual orifice diameter.
10. Location, size, and equivalent lengths of pipe, fittings and hose.

11. Location and size of the carbon dioxide storage facility.
12. Details of pipe size reduction method (reducing couplings or bushings) and the orientation of
13. Tees shall be clearly indicated.
14. Information pertaining to the location and function of detection devices, operating devices,
15. Auxiliary equipment, and electrical circuitry if used.
16. Information to identify apparatus and devices used.
17. Adequate explanation of any special features.

HALON 1301 (NFPA 12A)

The following information shall be included on the submitted plans:

1. Name and address of owner, address and location of system.
2. Name and address of designer, name and address of contractor.
3. Plans shall include a graphical scale, or be clearly dimensioned.
4. Information and calculations on the amount of Halon 1301, including container storage
5. pressure, internal volume of the container.
6. Location, type and flow rate of each nozzle including equivalent orifice area.
7. Location, size, and equivalent lengths of pipe, fittings and hose.
8. Location and size of the storage facility.
9. Details of pipe size reduction method and orientation of tees.
10. Information pertaining to the function and location of detection devices, operating devices,
11. auxiliary equipment and electrical circuitry if used.
12. All apparatus and other devices used.
13. Adequate explanation of any special features.
14. The manufacturer's version of the flow calculation program used shall be identified on
15. calculation submittal. Revised 9/2020

Dry Chemical/Wet Chemical (NFPA 17/17A)

The following information shall be included on the submittal plans:

1) Name and address of owner, address and location of system.
2) Name and address of designer, name and address of contractor.
3) Plans shall include a graphical scale, or be clearly dimensioned.
4) Hazards including, materials, location and arrangement and the exposure to the hazard.
5) The amount of Dry Chemical.
6) The size, length and arrangement of connected piping and/or hose.
7) The description and location of nozzles.
8) Flow rate of nozzles
9) Information pertaining to the function and location of detection devices, operating devices, auxiliary equipment and electrical circuitry if used.
10) Sufficient information to identify the apparatus and devices used.

OWNER'S INFORMATION CERTIFICATE CHECKLIST

The following content is from Figure A.28.1(b) in NFPA® 13, *Standard for the Installation of Sprinkler Systems*, 2025 edition.

Name of property:			
Address:	City:	State:	Zip Code:
Name of owner:			

Existing or planned construction is: ☐ Fire resistive or noncombustible ☐ Wood frame or ordinary (masonry walls with wood beams) ☐ Unknown	Describe the intended use of the building:

Note regarding speculative buildings: The design and installation of the fire sprinkler system is dependent on an accurate description of the likely use of the building. Without specific information, assumptions will need to be made that will limit the actual use of the building. Make sure that you communicate any and all use considerations to the fire sprinkler contractor in this form and that you abide by all limitations regarding the use of the building based on the limitations of the fire sprinkler system that is eventually designed and installed.

Is the system installation intended for one of the following special occupancies:

Y	N	Special Occupancies	Y	N	Special Occupancies
		Aircraft hangar			Airport terminal
		Fixed guideway transit system			Aircraft engine test facility
		Race track stable			Power plant
		Marine terminal, pier, or wharf			Water-cooling tower

If the answer to any of the above is "yes," the appropriate NFPA standard should be referenced for sprinkler density/area criteria.

Indicate whether any of the following special materials are intended to be present:

Y	N	Special Materials	Y	N	Special Materials
		Flammable or combustible liquids			Compressed or liquefied gas cylinders
		Aerosol products			Liquid or solid oxidizers
		Nitrate film			Organic peroxide formulations
		Pyroxylin plastic			Idle pallets

If the answer to any of the above is "yes," describe type, location, arrangement, and intended maximum quantities.

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CERTIFICATE CHECKLIST *Continued*

Indicate whether the protection is intended for one of the following specialized occupancies or areas:

Y	N	Occupancy or Area	Y	N	Occupancy or Area
		Spray area or mixing room			Class A hyperbaric chamber
		Solvent extraction			Cleanroom
		Laboratory using chemicals			Incinerator or waste handling system
		Oxygen-fuel gas system for welding or cutting			Linen handling system
		Acetylene cylinder charging			Industrial furnace
		Production or use of compressed or liquefied gases			Water-cooling tower
		Commercial cooking operation			

If the answer to any of the above is "yes," describe type, location, arrangement, and intended maximum quantities.

Will there be any storage of products over 12 ft (3.7 m) in height? ☐ Yes ☐ No
If the answer is "yes," describe product, intended storage arrangement, and height.

Will there be any storage of plastic, rubber, or similar products over 5 ft (1.5 m) high except as described above? ☐ Yes ☐ No
If the answer is "yes," describe product, intended storage arrangement, and height.

Is there any special information concerning the water supply? ☐ Yes ☐ No
If the answer is "yes," provide the information, including known environmental conditions that might be responsible for corrosion, including microbiologically influenced corrosion (MIC).
Determine and confirm the water supply including any necessary adjustments:

CERTIFICATE CHECKLIST *Continued*

Is seismic protection required? ☐ Yes ☐ No

Provide design spectral response acceleration at short periods (S_{DS}):

I certify that I have knowledge of the intended use of the property and that the above information is correct.

Signature of owner's representative or agent: _____ **Date:** _____

Name of owner's representative or agent completing certificate (print): _____

Relationship and firm of agent (print): _____