SOUTH CAROLINA STATE FIRE
a Division of South Carolina Department of Labor, Licensing and Regulation
Office of State Fire Marshal
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Line-Item Instructions for the Fire Sprinkler System Specification Sheet (FSSSS)

(2026 version)

Project Name

This is the name of the submitted project. It is important that this project name be used consistently on drawings and all other documents of the submittal, and as entered into the State Fire Information Management System (IMS).

Full Project Address

This is the full street address of where the submitted project will be installed, including the street number and name, city, and zip code. This address must be consistent with the project address used on drawings, other submitted documentation, and as entered into the IMS. Note that each physically separated "building", must be submitted as a separate project. Projects where the scope is entirely underground may be submitted as one project even if serving multiple buildings.

Permitting Authority

This is the name of the authority that is responsible for releasing the permits needed to allow installation of the fire sprinkler system. This will be the same as the Authority Having Jurisdiction (AHJ) to be selected when submitting a project through the IMS.

Water Supply

Tested at ▫Municipal dead-end ▫Municipal circulation ▫Existing fire pump ▫Other

Select the box next to the appropriate test location. If there is an existing fire pump supplying the fire sprinkler system, include the NFPA 25 required pump test report.

Pipe Size (in)

This is the size of the main where the water supply test was taken, or the size of the pipe supplying the existing fire pump when the NFPA 25 fire pump flow test is used for flow test data.

Date of test

The month/day/year of the flow test. The flow test must have been conducted less than one year before the submittal.

Static Pressure (psi) Residual Pressure (psi) Flow (gpm)

The appropriate data from the flow test, to be used with the hydraulic calculations for the design. If there is an existing fire pump used for the supply, an appropriate NFPA 25 fire pump test is a source for this information.

Test by/from Phone #

The name of the organization that provided the flow test (and individual if available). Provide the phone number for contacting this organization.

Distance from test's pressure gauge to building-base of riser Horizontal (ft) Vertical (ft)

Provide the horizontal and vertical distance between the location of the pressure gauge used to measure static and residual pressure for the flow test, and the location of the base of the riser (or part of the building where the riser is planned for).

Fire Pump ▫New ▫Existing ▫None

Mark the appropriate box. If there will be a new fire pump that this FSSSS depends on, mark "new". If that new pump is part of a separate submittal rather than within the scope of this FSSSS, express that in the notes section of this FSSSS. If the fire pump is existing, provide the NFPA 25 fire pump test report. Mark "none", if there will be no fire pump in the line supplying the system.

100% rated capacity (gpm)

The pump's manufacture/data plate given rated capacity (if there is a pump) in gpm at 100%.

Rated pressure (psi) @ 100% @150% @ churn

The pump's manufacture/data plate given pressure capacity (if there is a new or existing pump) at 100% rated flow, 150% rated flow, and at Churn.

On-site Water storage ▫New ▫Existing ▫None Capacity(gal) Type

Indicate if there will be new or existing on-site water storage for use by the fire sprinkler system. Indicate the water capacity of this storage, and indicate what type of storage this will be, such as ground tank, elevated tank, pond, etc. If there is more than one means of on-site water storage for the fire sprinkler system, use the notes section to clarify.

Seismic Design Data

Short Period Response Parameter= S_{DS} Seismic Coefficient= C_p Seismic Design Category

S_{DS} is available from ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. The use of a site class–specific value of S_{DS}, may be available from the local authority having jurisdiction, when site specific geological studies have been conducted. S_{DS} and C_p are numeric values. However, it is important to note that the Seismic Design Category is a letter determined based on the risk category and the severity of the design earthquake ground motion at the site in accordance with the SCBC and ASCE 7. Seismic Design Category is NOT synonymous with the Risk Category, nor the Site Soil Classification. ASCE (American Society of Civil Engineers) has online tools that may be helpful to the specifying engineer.

Design Areas

Area #	Hazard Classification	occupancy use of area and details of storage arrangement as applicable

For each needed design area, state the identifying number (use these same numbers to identify corresponding areas on the plans and calculations).

Indicate the Hazard Classification for the areas. When the hazard does not fit into the standard classifications of Light, OH1, OH2, EH1, or EH2, indicate what it is, such as ESFR, along with the appropriate code section reference in the Hazard Classification field.

State the occupancy use of the area and provide details of storage arrangement when the area protected is that use. For non-storage areas the use of the space might be as simple as “mercantile”, or “offices”, enough information is needed to make the hazard clear. However, labeling a space as “shell space” is not appropriate as it does not make the occupancy use that the system is to protect clear. For storage uses, provide enough information to demonstrate that the correct NFPA criteria is selected. This includes commodity classifications to be protected, storage height, ceiling height, rack arrangement, type of racks, and other information as may be needed for the specific arrangement, and so the reviewer can follow the NFPA path that the specifier uses to determine the design parameters.

If a standpipe system is part of the submittal, assign it a design area line. The Hazard Classification for it would be the “class” of the standpipe system.

Design Parameters

Area #	System Type	Design Discharge Criteria	Inside Hose(gpm)	Outside Hose(gpm)

The area numbers used here need to match the area numbers used in the previous section. The system type will correspond to the system type as seen in NFPA (wet, dry, antifreeze, etc.). For density/area designs the Design Discharge Criteria would be the amount of water delivered per square foot over the design area (Such as a typical 0.1 gpm/ft^2 applied over 1500 ft^2 commonly seen for a light hazard). If

there will be a reduction in the typical design area such as for having quick response sprinklers and a low ceiling, or other Code allowed reduction, that needs to be noted here along with the applicable Code section. If the criteria follows "room design method" or other special design methodology, that needs to be indicated here. Some designs such as for ESFR will need to show the number of sprinklers discharging for the design along with the pressure for those sprinklers.

State the inside hose allowance for when inside hose connections are to be used, and the outside hose allowance as needed for the design.

Note that the adopted Codes and standards dictate what the minimum level of design is. However, if the design team wishes to design a more robust system (with no aspect less than the minimum) they may do so. It is appropriate to note this (such as: increased design area at owner's request) to provide clarity when this occurs.

Applicable Codes and Standards (with editions) for the Scope of Work

Include the applicable NFPA standards to be followed for each component of the system. Include the applicable Building and Fire Code, and other codes, statutes, regulations, and ordinances when they are applicable. The edition of each of these must be included with the reference.

When the design is to incorporate an Alternate Means and Methods (AMM) for hazard conditions outside the scope of NFPA and to comply with State Regulations Section 71-8300.3. That AMM (with its date) needs to be listed in this section.

Scope of Work and Notes

Indicate what the scope of work for the submittal is and state where the starting/stopping point of the work will be (e.g., Starting at 1' above finished floor, provide full automatic fire sprinkler system for building).

If the specifier needs to provide additional notes to further clarify the specification this is the area designated for that as well.

Specifier's Information

Provide the name of the person providing the specification (See SC Code of Laws Sections 40-22-20(25) and 40-22-280(B) and 40-10-250(B) as applicable to the specifier needing to be licensed to practice engineering in South Carolina).

Mark "yes" if the specifying engineer is providing their services provided through a firm. If the engineer is providing service working through a firm, they will need to provide the appropriate Certificate of Authorization (COA).

The specifying engineer needs to apply their personal seal (and COA as applicable) in the spaces designated for this. For the engineer's signature with their individual seal, as stated in SC Code of Regulations Section 49-207(C)(2), "The signature and date when the document was prepared must be affixed under or across the face and beyond the circumference of the seal but in a manner that does

not obliterate or render illegible the licensee's name and number." A real/"wet" signature needs to be seen. Use of a script type computer font is not acceptable as a signature, nor is a numeric code only electronic signature (that does not also show the real/"wet" signature).

Provide the mailing address, phone number, and email of the specifier.

Provide the revision # for the FSSSS of the project. This is especially important if a submittal is "Returned for Corrections" and a revised FSSSS is needed with the corrected documentation.

On each page of the FSSSS in the space designated for it, indicate the page number of the sheet and how many pages total of FSSSS there are for the submittal. It is not uncommon for a FSSSS to be only one page. However, if additional pages are needed a "continuation page" form fillable document is available and should be used on pages after the first one.