

**POLICY: PLAN SUBMITTAL REQUIREMENTS: AUTOMATIC FIRE SPRINKLER SYSTEMS (AFSS)****References:**

California Government Code, Section 14963  
Title 24, Part 1, California Administrative Code, Section 4-317, 4-318  
Title 24, Part 2, California Building Code (CBC), Section 106.1.1.1 and Chapter 16A  
National Fire Protection Association Standards (NFPA) 13, 14, 20, 22, 24  
ASCE 7-05

Discipline: Fire and Life Safety, Structural Safety

A DSA Policy is a formally established set of governing statements based on law and code objectives, addressing any aspect of DSA's plan & construction review program that is not clearly addressed by code. Policy also may specify administrative or technical requirements that are not yet addressed within Title 24, but are deemed important and necessary to fulfill code objectives in advance of adoption into the code.

**Purpose:** The purpose of this policy is to establish Automatic Fire Sprinkler System (AFSS) submittal requirements and timelines, based on the California Government Code, the currently adopted California Building Code, and applicable and adopted NFPA Standards. The Division of the State Architect (DSA) is the Authority Having Jurisdiction for K-12 public schools, community colleges and essential services buildings and herein establishes the submittal requirements for the inclusion of Automatic Fire Sprinkler System(s) (AFSS) for construction projects within DSA jurisdiction.

**Background:** Per the California Administrative Code, the deferral of any plans for any system or component is at the discretion of DSA and not automatic. In the past within the Division of the State Architect, AFSS have been allowed to be routinely deferred. Many other jurisdictions within the state (including other state agencies) do not allow deferred submittals of AFSS.

**1. Scope:** This policy applies to K-12 public schools, community colleges, essential services buildings and pre-check (PC) designs under the jurisdiction of the Division of the State Architect (DSA). The scope of this Policy includes all adopted parts of the 2010 California Building Code (CBC), California Fire Code (CFC), and the currently adopted editions of the National Fire Protection Association (NFPA) pamphlets 13, 14, 20, 22, and 24 as they relate to Automatic Fire Sprinkler Systems.

**2. Policy: DSA no longer accepts deferred submittals for AFSS.** As of July 1, 2010, submittals for projects that are required by Title 24 (California Building/Fire Codes) to have an AFSS shall have a complete AFSS package as part of the initial project submittal. AFSS is not a deferrable item. See Section 4 of this Policy for minimum requirements for the AFSS portion of the submittal.

**2.1** Projects that are submitted without the required AFSS plans and documentation, or with incomplete AFSS plans and documents, will be deemed by DSA to be an incomplete project submittal and therefore will cause the entire submittal to be rejected.

**3. Benefits:** Elimination of AFSS deferred submittals results in:

- Better utilization of limited Applicant and DSA resources.
- Enhanced Architect of Record/Engineer of Record (AOR/EOR) design control of the entire project, as required by law.

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- Better coordination of Architectural, Mechanical, Plumbing, Structural, and other plans related with the AFSS.
- Quality, timely and complete AFSS submittals.
- Fewer redesigns of AFSS.
- Fewer **projects "Closed without Certification."**
- Reduction in the delay of Project Closeouts.
- Decrease in time required to complete a plan review and back check of projects with AFSS.
- Reduction in project delays.
- Reduction or elimination of repetitive incomplete submittals.
- Elimination of:
  - Illegal construction without approved AFSS **plans, and subsequent "Stop Work Orders."**
  - Entire buildings being built under an incremental submittal without the required AFSS.
  - Buildings and/or spaces being occupied without required AFSS.
- Reduced liability to the School Districts and design professionals as AFSS will no longer be installed without DSA approval.

### 4. Procedure:

#### 4.1 Submittal Requirements:

**4.1.1** To ensure consistency and to expedite the AFSS review, the use by the AOR/EOR and AFSS design professional of [GL-1: Project Submittal Guidelines: Automatic Fire Sprinkler System](#) is highly recommended.

**4.1.2** The AFSS designer shall provide, via the AOR/EOR, all items and documentation noted in [GL-2: Plan Submittal Guidelines: Automatic Fire Sprinkler System \(AFSS\)](#) as part of the submittal package, including, but not limited to the following:

**a.)** A data disc containing the hydraulic calculations, product data sheets, and any other information with the AFSS submittal, along with codes, passwords, or any information needed to access the information and data. Include the name of the applicable hydraulic calculation program used. AOR/EORs utilizing Electronic Plan Review submittals are exempt from submitting a data disc, but all information must be **"uploaded" to the proper DSA site.** See DSA Procedure 09-05 **"Plan Review Submittals for DSA Projects - Electronic Submission and Plan Review."** 

**b.)** Construction documents for projects requiring AFSS shall include all plans, hydraulic calculations, current water flow data (including gauge and flow hydrant locations), specifications, required California State Fire Marshal listings, and any other documentation or plans (Water Tanks, Fire Pumps, etc.) required to perform a comprehensive and complete plan review.

**c.)** A site plan with LFA review and sign-off on applicable DSA-810 items.

Incomplete submittals will be returned to the AOR/EOR.

#### 4.2 Review Process:

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**4.2.1** DSA Structural Engineers shall review the types, details, drawings and connections of the hangers, bracing, and other structural considerations for AFSS piping to the structural members of the building.

**4.2.2** DSA Fire & Life Safety Officers shall review all applicable items as noted on DSA GL-1.

**4.2.3** The AOR/EOR shall coordinate all corrections, changes and requirements with all other design elements. Per California Administrative Code (CAC), Title 24, Part 1, Section 4-318 (a): **"When plans and/or specifications require extensive corrections, a corrected set of prints and specifications shall be submitted for review if requested by DSA."**

**4.2.3.1** AFSS correction notes or requirements not addressed or complied with adequately prior to the back check of the project **will be cause for "not approving"** the entire project.

**4.2.3.2** The AOR/EOR and the AFSS designer must maintain communication and close coordination with the DSA SS and FLS Plan Reviewers to ensure that all correction requirements are understood and have been addressed adequately before scheduling a back check.

### **4.3 Changes:**

**4.3.1** Once an entire project, including the AFSS portion, has been reviewed, back checked, approved and stamped out by DSA, new designs or revisions of the AFSS must be submitted to DSA for approval prior to the beginning of the AFSS installation. Substantial changes may result in additional review time by DSA. Installation of an AFSS will not be allowed to be started without DSA approved and stamped plans (including revisions and changes) on site for installers and Project Inspectors to utilize. The change order process may not be used to redesign an AFSS **by a Type "A" General Contractor or a "C-16" licensed contractor.**

**4.3.2** Minor changes (such as changes in product type or manufacturer) that do not significantly affect the design parameters of the system shall be, at the discretion of the DSA Field Engineer, submitted to DSA for review and approval in accordance with established DSA procedures (IR A-6).

**4.3.3** Any substitution of "Flexible" type piping in lieu of "Rigid" pipe or any change in size, manufacturer or lengths of "Flexible" type piping require submittal of piping plans, product data sheets and hydraulic calculations to DSA for review and approval.

### **5. Resources and Contact Information:**

**5.1 Web Site References:** DSA Documents referenced above are available on the DSA web site (<http://www.dgs.ca.gov/dsa>) as follows:

- [GL-1: Project Submittal Guidelines: Automatic Fire Sprinkler System.](#)

This guideline defines the specific information required with the submittal of AFSS Plans, hydraulic calculations and specifications per NFPA 13.

- DSA Procedure 09-05 is available on the [Publications](#) page
- IR A-6 is available on the [Individual IR](#) page.

**5.2** For questions regarding this Policy, contact the Regional Office Manager at the DSA regional office where the project will be assigned. See the [DSA Contacts](#) page.

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**APPENDIX 1: QUESTIONS AND ANSWERS**

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**Q1.** Are there anticipated circumstances that would result in DSA allowing the deferral of an Automatic Fire Sprinkler System (AFSS)?

**A1. NO.**

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**Q2.** Once an AFSS is submitted and approved by DSA, can a **type "A" General Contractor, a "C-16" contractor, or other qualified individual** change the design as part of, or after, the bidding process?

**A2. NO.** The DSA approved AFSS plan must be constructed as approved by DSA unless change order documents are initiated and submitted by the AOR/EOR (see section 4.3 above and Q3 and A3 below).

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**Q3.** Will a Field Change Document be required for minor changes?

**A3.** Required submittals to DSA of Field Change Documents for the AFSS are at the discretion of the Field Engineer.

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**Q4.** Are "Permanent" portable buildings required to have an AFSS?

**A4.** Yes, where required by any section of the adopted codes.

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**Q5.** Are (Temporary) Portable buildings required to have an AFSS per SB 575?

**A5. NO.** See Title 24, Section 202 for the definition of Portable Building [SFM]. Per the requirements of the Green Oaks Family Academy Elementary School Fire Protection Act (SB 575), **"Portable" buildings are exempt from AFSS requirements. (Temporary)** Portable buildings are not required to have AFSS installed at the time of installation on a Campus.

Portable buildings: The school administration shall provide for the installation of all requirements of a permanent building at the end of the permitted three year period

**OR:**

a. The portable building shall be removed (from the campus)

**OR:**

b. The school administration may submit a request (with justification included) to the State Allocation Board for an extension pursuant to the Education Code Section 17074.54(a) and (b).

**Q5a.** Will a temporary portable building, used as a Science Classroom, be required to have an AFSS? The chemicals used in the classroom will be under the exempt amounts allowed by CBC Table 307.1(1).

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**A5a. YES.** If a temporary portable building is to be used as an area with "Special Hazards," Exemption of AFSS requirements will not be allowed. Special hazards are described in CBC 903.2.2 item 3. A temporary portable building, by definition, will be placed on a campus for three years or less. Auto Shops, Science Labs, and other areas with hazardous materials or uses must be protected during that time. The investment required for these types of facilities may not justify the use of a temporary portable building. Appropriate planning of the site and building locations will help to alleviate problems associated with the use of temporary portable buildings.

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**Q6.** My project was discussed during a preliminary meeting and the AFSS was allowed at that time to be deferred. Will I need to submit the AFSS with the initial submittal for the project?

**A6.** Deferrals of AFSS granted at Preliminary Meetings conducted prior to June 30, 2010 will be allowed (see Section 2.2 of this policy).

**Q7.** If a project requires a "partial" AFSS system, can it be deferred?

**A7. NO.** All AFSS shall be submitted as part of the initial project submittal.

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**Q8.** Can a General "A" Licensed contractor or a C-16 Contractor design an AFSS?

**A8. NOT for the purposes of this Policy.** A General type "A" Licensed contractor or a "C-16" Licensed Contractor can only design an AFSS that they have a legal contract to build. Since the design must be submitted prior to bidding and letting of the construction contract, neither a General type "A" licensed contractor nor a "C-16" Contractor may design the system. The General type "A" contractor or "C-16" contractor must build the system to the design approved by DSA. Please see DSA [IR A-25: Design, Installation and Maintenance of Automatic Fire Sprinkler Systems](#).

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**Q9.** Can "Incremental Submittals" include the AFSS as a separate increment?

**A9. NO.** "Incremental Submittals" of plans and specifications that include buildings that require an AFSS shall have the AFSS submitted as part of the associated increment for each building or group of buildings.

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**Q10.** Can underground fire line piping be submitted as a separate Incremental?

**A10. YES.**

1. When the construction plan is submitted for the first building that requires an AFSS, the Underground Fire Piping plan for the entire scope of the project shall be submitted in order to verify the hydraulic calculations and locations of test hydrants for water flow data.
  2. When the Underground Fire Piping plans are initiated and submitted prior to the submittal of the building construction plans, they will be reviewed and approved based upon the face value of the design. A copy of the DSA approved underground plans shall be provided with each applicable incremental submittal to ensure deviations have not been made and to ensure the hydraulic calculations have accounted for all underground piping and appurtenances.
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**Q11.** Can a water tank or fire pump be deferred?

**A11. DSA approval for the deferral of any item is not automatic.** Water flow data must be provided at the time of the AFSS submittal. Where it is anticipated that a water

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tank or fire pump will be required, the proposal and timeline for providing the minimum requirements can be discussed at a preliminary design meeting. A decision will then be made by DSA regarding the allowance of any deferred items.

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**Q12.** If a construction project is submitted on June 30, 2010 that does not have the required AFSS included, will the project be returned as "incomplete"?

**A12. Unless prior approval from DSA for a deferred submittal has been granted, the entire project will be returned.** However, a prior approval for a deferred submittal granted by DSA will be honored (see Question #6).

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**Q13.** How is the Local Fire Authority (LFA) involved in AFSS project plan reviews?

**A13. As of January 1, 2013 the LFA is required to review and sign off on DSA-810 Sections 4 and 5 appearing on the site plan (see [DSA Bulletin 12-02](#)).**

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