



Disciplines:	Structural	History:	Revised 08-21-17	Revised 09-18-07
			Revised 06-20-17	Revised 06-01-06
			Revised 10-10-16	Revised 09-10-02
			Revised 02-22-13	Issued 09-01-99
			Revised 04-24-12	

PURPOSE: This Interpretation of Regulations (IR) provides clarification of specific Code requirements relating to the certification and approval of school construction project inspectors. All project inspectors must complete this two-step process of certification and approval by the Division of the State Architect (DSA) before they are permitted to work on school construction projects.

BACKGROUND: Certification and Approval – A Two-Step Process

Certification: Section 1 of this IR explains how to become a DSA certified project inspector and maintain such certification. Certification is the first step in becoming a school construction project inspector. Certification attests that the inspector is qualified to inspect construction projects under DSA jurisdiction.

Approval: Section 2 describes the DSA approval requirements and process for a project inspector to perform inspections on a particular project. Approval is the second step. This step occurs on every project. Approval of the project inspector by a DSA Regional Office must be obtained before the inspector is permitted to work on a project. Duties of inspectors are described in <u>IR A-8: Project Inspector and Assistant Inspector Duties and Performance</u>.

The acceptance and approval of assistant inspectors is described in <u>IR A-12: Assistant Inspector Approval</u>.

INTERPRETATION:

1. **CERTIFICATION OF THE INSPECTOR:** As required by law, all project inspectors must be certified through the <u>DSA Project Inspector Examination Program</u>.

Examinations are given in each of four project classes. The examinations measure the applicant's ability to read and comprehend construction plans and the California Building Standards Code.

The DSA Project Inspector Examination Program does **not** qualify an applicant as a "special" inspector.

1.1 Class 1 Projects and the Class 1 Examination: Projects that are designated as Class 1 must contain one or more "Class 1 structures" (as defined below) but may also contain Class 2, Class 3, or Class 4 structures. The Class 1 examination is comprehensive; it tests the applicant's knowledge of Class 1, Class 2, Class 3, and Class 4 structures, and related code requirements.

Class 1 Structures

- Buildings or additions of 2,000 square feet in floor area or greater that utilize materials
 other than wood-frame shear walls (masonry/concrete shear walls, steel brace frames,
 concrete, or steel moment-resisting frames) as the primary lateral-load resistive system.
- Substantial structural alterations to the gravity and/or lateral load-resisting system of the building types described above.

1.2 Class 2 Projects and the Class 2 Examination: Projects that are designated as Class 2 must contain one or more "Class 2 structures" (as defined below) but may also contain Class 3 or Class 4 structures. The Class 2 examination tests the applicant's knowledge of Class 2, Class 3, and Class 4 structures, and related code requirements.

Class 2 Structures

- Buildings or additions over 2,000 square feet in floor area that utilize wood-frame shear walls as the primary lateral load-resistive system. Projects may be single or multi-level, with no upper limit in floor area. The project may contain incidental masonry, concrete and/or structural steel construction (e.g., gravity load carrying columns and beams). Buildings may have isolated exceptions to the lateral load resistive system, such as a steel brace frame at one location in the structure. Cellular or communication poles (not including truss towers) and field or stadium lights are considered Class 2 structures.
- Buildings or additions of less than 2,000 square feet in floor area that have primary lateral load-resistive systems utilizing concrete, masonry or steel construction. A singlestory masonry building with a regular configuration, a floor area of less than 7,000 square feet, and a wood-frame roof structure may be considered to be a Class 2 structure.
- On-site construction of two-story modular buildings.
- Alteration, modernization and reconstruction projects that exceed the limitations of the Class 3 scope of work and do not include substantial alterations to structural systems of concrete, steel or masonry.
- Non-building structures that exceed the limitations of the Class 3 scope of work.
- 1.3 Class 3 Projects and the Class 3 Examination: Projects that are designated as Class 3 must contain one or more "Class 3 structures" (small buildings of wood-frame construction and/or modernization/alteration projects) but may also contain Class 4 structures. The Class 3 examination tests the applicant's knowledge of both Class 3 and Class 4 structures and related code requirements.

Class 3 Structures

- Buildings or additions of wood frame, single-story construction, with conventional (spread footing) concrete foundations and a total floor area less than 2,000 square feet. Structures must utilize wood-frame shear walls as the primary lateral load-resistive system. The project may include isolated steel or concrete elements (e.g., steel or concrete columns).
- Structural alteration projects limited to wood-frame, single story construction. When deemed appropriate by DSA, alterations to (or addition of) isolated steel, masonry or concrete elements may be included in Class 3 projects. For example, alterations or additions to cell tower appurtenances may be considered a Class 3 project. However, alteration projects involving significant changes to the lateral load-resisting system may be classified as Class 1 or 2 projects.
- Alteration and modernization projects that are primarily non-structural, such as electrical, mechanical, plumbing, accessibility features, and site improvement work.
- Non-building structures, such as signs and poles, less than 35 feet in height, bleachers with a maximum of five rows of seats, walls less than 10 feet in height above grade, and single-story canopies less than 200 square feet in horizontal projected area.

- 1.4 Class 4 Projects and the Class 4 Examination: Projects that are designated as Class 4 only include "Class 4 structures" (site installation of pre-manufactured, single-story relocatable buildings and related site work). The Class 4 examination tests the applicant's knowledge of Class 4 structures and related code requirements.
- 1.5 Relocatable Building Inspector - In Plant ("RBIP" Inspectors): Inspectors of factorybuilt relocatable buildings must either be a DSA certified RBIP inspector or a Class 1, 2 or 3 DSA certified project inspector. All appropriately certified project inspectors (i.e., project inspector class is consistent with the classification of factory-built relocatable buildings) and inspectors on the approved RBIP list will be eligible to perform RBIP inspection on projects under DSA jurisdiction. As of January 1, 2012, DSA no longer issues RBIP certifications. DSA certified or RBIP inspectors having an AWS CWI or SCWI certification and who will be performing structural welding inspection may indicate such on their DSA 5-IPI (see Section 2 of this IR) without need for filing a separate DSA 5-SI.
- 1.6 Expiration and Recertification: An inspector's certification expires four years from the date of issue. To renew the certification, each inspector must complete the requirements of the DSA inspector recertification program every four years. The recertification program consists of the DSA Academy Project Inspector Overview Class and a recertification seminar and examination conducted by DSA. Further information regarding the requirements of recertification may be obtained online at

www.dgs.ca.gov/dsa/Programs/programCert/inspector/projectinspector/recert.aspx

For information on the Project Inspector Overview Class, refer to

www.dsaacademy.dgs.ca.gov/registration/class.asp?id=22.

- 1.7 For Specific Examination Information: The DSA project inspector examination program is administered by the DSA Headquarters Office. For information regarding the examination schedule, locations, examination fees, or to obtain an application, contact DSA by phone at (916) 443-9932, or online at www.dgs.ca.gov/dsa/Programs/programCert/inspector/projectinspector/exam.aspx.
- APPROVAL OF THE PROJECT INSPECTOR: As required by law, all project inspectors 2. must be DSA approved for work on each individual project. The DSA project inspector must maintain valid certification throughout the duration of assignment to any project and fulfill the requirements of the DSA recertification program as necessary. Newly certified project inspectors without prior DSA project inspection experience shall complete the DSA Project Inspector Overview Class prior to inspecting their first project.

To apply for approval, the Design Professional in General Responsible Charge must submit a form DSA 5-PI: Project Inspector Qualification and Approval to the appropriate DSA Regional Office to ensure DSA approval of the inspector prior to the start of construction. For projects involving construction of permanent modular or relocatable buildings, the submittal requirements are the same except the design professional delegated responsibility for the observation of in-plant construction in Section 1.0 or, when subdelegated, Section 1.1 of the DSA 1-MR, shall submit form DSA 5-IPI: In-Plant Project Inspector Qualification and Approval instead.

For approval on Class 1 and Class 2 projects: Before submitting a form DSA 5-PI or DSA 5-IPI (when applicable) for Class 1 or Class 2 projects, the Design Professional in General Responsible Charge must consult the DSA field engineer assigned to the project by the DSA Regional Office. The design professional and the DSA field engineer must review the inspector's qualifications for the project with regard to DSA approval criteria (see DSA Approval of the Project Inspector in Section 2.1.5 of this IR). The use of assistant inspectors must also be considered at this time (see DSA IR A-12).

- 2.1 Review of the Inspector's Qualifications by the School District and Responsible Design Professionals: The following five items must be reviewed by the Design Professional in General Responsible Charge, the structural engineer delegated responsibility for observation of construction, and the school district prior to submitting the form DSA 5-PI or DSA 5-IPI (when applicable) to the DSA Regional Office for inspector approval:
- 2.1.1 The Class of the Inspector's Certification and the Project Class: The project's classification is determined by DSA during plan review, and is indicated on the Approval of Plans notification (issued after approval of plans and specifications). The project classification can also be checked online at the DSA Tracker website at

https://www.apps2.dgs.ca.gov/dsa/tracker/ProjectStatus.aspx

Project inspectors with Class 1 certification may apply for DSA approval to inspect **any** project. Project inspectors with Class 2 certification may apply for approval to inspect projects that are designated as Class 2, 3, or 4. Project inspectors with Class 3 certification may apply for approval to inspect projects that are designated as Class 3 or 4. Project inspectors with Class 4 certification may apply for approval only on Class 4 projects.

2.1.2 Inspector's Work Experience: DSA approval is contingent upon the inspector's experience in inspection or construction work on building projects of a type similar to that of the individual project for which the inspector is applying. The inspector must describe, on the form DSA 5-PI or DSA 5-IPI (when applicable), qualifying experience from three building construction projects. Qualifying experience is defined by the types of duties performed and the types of projects on which those duties were performed.

Types of Duties: Prior job positions and responsibilities are the primary considerations of qualifying experience. The inspector's prior responsibilities for either inspection or construction should include experience with the trades that will be utilized on the project for which the inspector is applying. Job positions that may provide qualifying experience include:

- Project inspector (providing continuous inspection of an entire project). Prior experience as a project inspector is required for Class 1 and large Class 2 projects.
- Office of Statewide Health Planning and Development (OSHPD) Class A inspector.
- DSA-approved assistant inspector.
- General contractor's field superintendent.
- For Class 4 projects only, special inspector or construction trade journeyman. These positions provide qualifying experience only in the specific trade(s) in which the individual worked.

Other job positions are unlikely to provide sufficient experience for approval by DSA as a project inspector.

Types of Projects: The types of projects that provide qualifying experience must be relevant to the type of project for which the inspector is applying. Project aspects (both for prior projects and the project for which the inspector is applying) that must be considered include:

Materials of the structural system (wood-frame, concrete, masonry, steel).

- Complexity of the structural system (configuration of buildings, number of floors and unusual design features).
- Size (square footage of new construction, total construction cost).

2.1.3 On-Site Presence of the Project Inspector: Two important aspects must be considered:

During Construction: The inspector must be present on the job-site or in the plant (for permanent modular or relocatable buildings) as needed to provide continuous inspection of all the work (refer to California Administrative Code [CAC] Section 4-342[b]1 for additional information). The inspector's schedule must allocate sufficient time to perform all required duties on the project for which the inspector is applying.

The inspector must indicate on the form DSA 5-PI or DSA 5-IPI (when applicable) whether presence on the job-site will be full-time (40 hours per week or more) or part-time (less than 40 hours per week). Large projects usually require a full-time commitment from the inspector.

Time Commitment: If the inspector has other work commitments concurrent with the project for which the inspector is applying, each school project, each non-school project, and/or any other employment commitment must be described as indicated on the form DSA 5-PI or DSA 5-IPI (when applicable). If the combined work between multiple projects is approximately 60 or more hours per week, the following is required:

- Justification that sufficient time will be spent on the project while accounting for travel between projects.
- A notification to all school districts and DSA field engineers for those multiple projects.
- Letters or emails of acknowledgement from those school districts and DSA District Structural Engineers working on those projects must be included with the DSA 5-PI or DSA 5-IPI (when applicable).

Any future increase in workload on non-DSA projects beyond that identified in the DSA 5-PI or DSA 5-IPI (when applicable) without a corresponding workload decrease (i.e., a net increase) thereby resulting in a total workload of approximately 60 or more hours per week shall be communicated to the DSA field engineer for their consideration of whether adequate on-site inspector presence can be maintained.

During the initial inspector evaluation for the project, the responsible design professionals, the school district, and DSA must conclude that the inspector's schedule will allow for an adequate presence on the job-site. In the event that the school district, the responsible design professional(s), or DSA conclude that the inspector's schedule, as described on the form DSA 5-PI or DSA 5-IPI (when applicable), will not allow for sufficient presence on the job-site, the inspector will be afforded an opportunity to provide additional information for re-evaluation.

2.1.4 School District and Design Professional's Interview of the Inspector: DSA recommends that the school district and the responsible design professional(s) conduct a personal interview with the inspector before signing the form DSA 5-PI or DSA 5-IPI (when applicable).

The following points should be considered:

- Inspector's knowledge of his/her role and responsibilities, job duties, and limits of authority.
- Inspector's characteristics that are necessary to develop and maintain satisfactory working relationships. Such characteristics include effective communication skills, patience, determination, consistency and the ability to exercise sound judgment.
- Inspector's physical ability and stamina to inspect all construction, and to maintain a responsive presence on the job.
- Inspector's ability to provide a responsive presence on the job while accounting for time commitment on other concurrent projects and travel time between them.
- Inspector's knowledge of construction methods, building materials, material testing/special inspection procedures and building codes applicable to the project. The inspector must be able to read and readily comprehend the requirements of the project plans and specifications.
- 2.1.5 DSA Approval of the Project Inspector: The project inspector must be DSA approved for each individual project. The DSA field engineer's approval of the proposed inspector is based on the following criteria:
 - The proper relationship between the class of the inspector's certification and the project's classification, as described in Section 2.1.1.
 - The inspector's work experience, as described in Section 2.1.2.
 - The inspector's workload and time commitment to the project, as described in Section 2.1.3.
 - The utilization of assistant inspector(s), as described in DSA IR A-12.
 - Satisfactory performance on previous school construction projects.
 - Verification that the inspector is employed by the school district.
 - **Exception:** Manufacturer's stockpile projects shall have the DSA accepted Laboratory of Record employ the in-plant inspector.
 - Verification that newly certified inspectors without prior DSA project experience have completed the DSA Project Inspector Overview Class prior to inspecting their first project.

If the inspector meets the requirements for approval, the DSA field engineer or field supervisor will sign the form DSA 5-PI or DSA 5-IPI (when applicable), which indicates DSA approval. A copy of the signed form DSA 5-PI or DSA 5-IPI (when applicable) will be posted to DSA's electronic filing system as indicated in PR 13-01.

If DSA is unable to grant approval, the form DSA 5-PI or DSA 5-IPI (when applicable) will be promptly returned to the Design Professional in General Responsible Charge, with documentation of the reason(s) why approval was not granted. The proposed inspector may be reconsidered for approval if these documented reasons are satisfactorily addressed on the resubmitted form DSA 5-PI or DSA 5-IPI (when applicable).

WITHDRAWAL OF APPROVAL AND/OR CERTIFICATION: The DSA field engineer observes the project inspector's performance of code-prescribed duties during the course of construction. IR A-8 describes the required duties and responsibilities of the project inspector. Failure to perform duties as required may result in the withdrawal of approval and/or certification of the project inspector.

REFERENCES:

California Code of Regulations Title 24 Part 1: California Administrative Code Sections 4-211, 4-238, 4-333, 4-333.1 and 4-341 California Health and Safety Code, Section 16017

California Education Code, Sections 17311 and 81143

This Interpretation of Regulations (IR) is intended for use by the Division of the State Architect (DSA) staff and by design professionals to promote more uniform statewide criteria for plan review and construction inspection of projects within the jurisdiction of DSA which includes State of California public elementary and secondary schools (grades K–12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

This IR is reviewed on a regular basis and is subject to revision at any time. Please check DSA's website for currently effective IRs. Only IRs listed on the web page at www.dgs.ca.gov/dsa/Resources/IRManual.aspx at the time of plan submittal to DSA are considered applicable.