DSA IR A-5

PRODUCT AND MATERIAL ACCEPTANCE BASED ON A VALID EVALUATION REPORT

Disciplines: Structural

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Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

PURPOSE

This Interpretation of Regulations (IR) clarifies DSA policy on the acceptance of structural products and the recognition of product evaluation reports issued by third-party organizations for use on projects under DSA jurisdiction.

SCOPE

This IR is applicable to structural products or materials regulated by the provisions of California Building Code (CBC) Chapters 14 through 25 and alternative structural products and materials seeking approval per California Administrative Code (CAC) Section 4-304. Product acceptance for access compliance (e.g., detectable warning products), fire and life safety (e.g., fire-resistance rating of assemblies), and sustainability requirements is beyond the scope of this IR.

BACKGROUND

Prior to 2008, the most common basis of structural product acceptance by DSA was either a DSA Product Acceptance (PA) report or an International Code Council Evaluation Service (ICC-ES) report. Over time many products with PA approval based on CAC Section 4-304 gained recognition in the CBC. Consequently, PA reports for those products were no longer needed. Effective January 1, 2008, DSA discontinued issuing or renewing PA reports. All structural products now require a valid evaluation report listing in accordance with Section 2 below.

1. ACCEPTANCE OF STRUCTURAL PRODUCTS

Structural products and materials, as described in the SCOPE Section above, may be accepted for use on DSA projects if they meet the following requirements:

1.1 Products, including alternative materials, must have a valid evaluation report issued by a recognized agency or organization per Section 2 below.

1.2 In addition to having a valid evaluation report, products and materials that are addressed by the CBC, its adopted standards, or DSA publications (e.g., IR, Bulletins, etc.) shall comply with the requirements defined therein.

1.3 DSA retains the right to make the final determination on the acceptability of a product and validity of its evaluation report. See Section 4 below.

2. EVALUATION REPORT RECOGNITION

DSA recognizes evaluation reports meeting the eligibility criteria listed in this section as valid to substantiate products designed and specified in accordance with Section 3 below. The intent is to recognize evaluation reports for products or materials that comply with the CBC and DSA requirements, demonstrate satisfactory performance, and are manufactured under a satisfactory quality control program.

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To be recognized by DSA, evaluation reports issued by third-party organizations must meet the criteria defined in this section.

2.1 Evaluation reports may not be recognized if the product does not comply with applicable DSA amendments in the CBC or applicable requirements of DSA publications (e.g., IR, Bulletins, etc.). See Section 3.7 below for additional information.

2.2 Evaluation reports must be current and will not be recognized after their expiration date. Reports more than three years old are considered expired.

2.3 Evaluation reports issued by the following organizations are recognized by DSA:

2.3.1 International Code Council Evaluation Service (ICC-ES).

2.3.2 International Association of Plumbing and Mechanical Officials Uniform Evaluation Services (IAPMO UES).

2.3.3 California Department of Health Care Access and Information's Office of Statewide Hospital Planning and Development (OSHPD) preapproval programs:

2.3.3.1 OSHPD Preapproval of Manufacturer's Certifications (OPM).

2.3.3.2 OSHPD Special Seismic Certification Preapproval (OSP).

2.3.3.3 OSHPD Preapproved Details (OPD).

2.3.3.4 OSHPD Preapproved Prefabricated Components and Systems (PCS).

2.3.4 City of Los Angeles Department of Building and Safety (LADBS) Research Report (LARR).

2.3.5 Miami-Dade County Product Control Notice of Acceptance (NOA) relating to wind resistance.

2.4 Evaluation reports authored by other product certification organizations not listed in Section 2.3 above may be recognized by DSA as valid subject to the following conditions:

2.4.1 Certification organization is accredited in accordance with International Organization for Standardization and International Electrotechnical Commission (ISO/IEC) Standard 17065: Conformity assessment—Requirements for bodies certifying products, processes and services. The certification organization must provide evidence of ISO/IEC 17065 accreditation appropriate to the materials and tests applicable to the product being qualified.

2.4.2 Qualifying tests are performed by an independent laboratory accredited in accordance with ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories.

2.4.3 The acceptance criteria used as the basis of the evaluation report shall be cited in the report. If the acceptance criteria are not based on a nationally recognized standard (e.g., authored by International Code Council, Underwriters Laboratories, Factory Mutual, etc.), a copy of the acceptance criteria shall be provided to DSA for assessment.

2.4.4 The testing and evaluation of products used in the seismic force-resisting system shall be overseen by a civil or structural engineer registered in California. The evaluation report shall be stamped and signed by the registered California engineer.

2.5 Evaluation reports must establish the following:

2.5.1 Compliance with the model code adopted by the current CBC (i.e., the International Building Code), DSA publications, adopted standards, published consensus acceptance criteria, and industry standards (e.g., ASTM specifications) as applicable.

2.5.2 Successful completion of all required tests.

2.5.3 Quality control program requirements of the product manufacturer, including periodic independent third-party audits.

2.5.4 For products or materials used to resist seismic forces, qualification for the Seismic Design Category (SDC) of the project, no less than SDC D per CBC Section 1613A.2.5.

3. USE OF EVALUATION REPORTS

Valid evaluation reports per Section 2 above, may be used to substantiate structural products and materials in accordance with this section.

3.1 The design, application, and installation of the product shall comply with the requirements of each of the following:

3.1.1 CBC.

3.1.2 DSA publications (e.g., IR, Bulletins, etc.).

3.1.3 Valid evaluation report.

3.1.4 Manufacturer's recommendations.

3.2 For products or materials used to resist seismic forces, the capacity shall be taken as 80-percent of the value listed in the evaluation report unless the listed values are established on the basis of cyclic test results. The 80-percent capacity limitation may be waived when the product or material is designed for the seismic load effect including the overstrength factor or the capacity-limited seismic load effect per American Society of Civil Engineer's Standard 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE 7), Section 12.4.3.

3.3 The evaluation report and any associated supporting documents required by it shall be submitted to DSA with the project application.

3.4 When the evaluation report requires special inspection or testing, it shall be specified in the construction documents and form *DSA 103: Listing of Structural Tests and Special Inspections*, which shall reference the evaluation report in the "Code References and Notes" column. See *IR A-15: Testing and Inspection of Remotely Fabricated Structural Elements* for further information on fabrication testing and inspection.

3.5 For certain product or material types, the evaluation report may not be sufficient as the sole basis of acceptance. DSA will review, on a project specific basis, products or materials when any of the following conditions apply:

3.5.1 Design requires substantial project or site-specific design or engineering.

3.5.2 Installation requires custom assembly or construction on site.

3.5.3 Evaluation report requires fabricator approval by the building official or another entity.

3.6 The following are examples of product types described in Section 3.5 above that require additional substantiation for acceptance:

3.6.1 Earth retaining systems such as segmental walls. Refer to *IR 18-2: Segmental Retaining Wall Systems of Precast Concrete Units*.

3.6.2 Soil or ground improvement systems such as compacted aggregate piers.

3.6.3 Proprietary steel special moment resisting frame connections.

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3.6.4 Premanufactured seismic force-resisting systems or components not listed in ASCE 7 Table 12.2-1.

3.7 Any statement in an evaluation report asserting its compliance with DSA adopted code provisions is solely the opinion of the report author. Such a statement is not an endorsement by DSA, nor is it an indication that the report has been reviewed by DSA for concurrence. Evaluation reports containing such statements are fully subject to DSA review and acceptance on a project-by-project basis. Refer to *Bulletin (BU) 19-04: DSA Acceptance of ICC-ES California Building Code Supplement to ICC-ES Evaluation Reports*.

4. VOIDANCE OR LIMITATIONS OF ACCEPTANCE

DSA may reject, discontinue, or impose conditions on the acceptance of a product or recognition of its evaluation report in accordance with this section.

4.1 Products or materials must demonstrate continued acceptable performance. DSA reserves the right to rescind product acceptance should any of the following situations occur:

4.1.1 Documented structural safety problems such as failure, collapse, etc.

4.1.2 Recall by the manufacturer, evaluation report issuing organization, or other government agency.

4.1.3 Documented inconsistency of the manufactured product with its evaluation report.

4.2 Modification of a product such that it no longer complies with the CBC, code-adopted standards, or its evaluation report may be cause to void its acceptance.

4.3 DSA may reject a product or material when the method of justification given to substantiate its behavior is not consistent with the condition in which it is proposed for use on a given project. For example, specifying a product in an application to resist seismic forces when it has not been tested in accordance with the acceptance criteria required for seismic loading.

REFERENCES:

California Code of Regulations (CCR) Title 24
Part 1: California Administrative Code (CAC), Section 4-304.
Part 2: California Building Code (CBC), Section 1613A.2.5.

This IR is intended for use by DSA staff and by design professionals to promote statewide consistency for review and approval of plans and specifications as well as construction oversight of projects within the jurisdiction of DSA, which includes State of California public schools (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 subject to revision at any time. Please check DSA's website for currently effective IRs. Only IRs listed on the webpage at www.dgs.ca.gov/dsa/publications at the time of project application submittal to DSA are considered applicable.