

**FINAL STATEMENT OF REASONS
FOR PROPOSED BUILDING STANDARDS
OF THE STATE FIRE MARSHAL
REGARDING THE 2019 CALIFORNIA RESIDENTIAL CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2.5
(SFM 02/19)**

The Administrative Procedure Act requires that every agency shall maintain a file of each rulemaking that shall be deemed to be the record for that rulemaking proceeding. The rulemaking file shall include a Final Statement of Reasons. The Final Statement of Reasons shall be available to the public upon request when rulemaking action is being undertaken. The following are the reasons for proposing this particular rulemaking action:

UPDATES TO THE INITIAL STATEMENT OF REASONS:

Government Code Section 11346.9(a)(1) requires an update of the information contained in the Initial Statement of Reasons. If the update identifies any data or any technical, theoretical or empirical study, report, or similar document on which the state agency is relying that was not identified in the Initial Statement of Reasons, the state agency shall comply with Government Code Section 11347.1.

The following group consists of updates to proposed items, resulting from a 15-day public comment period that SFM held. These comments and rationale appear in addition to the comments and rationale shown below. See section: OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S).

Item: #SFM 02/19-3-3

Chapter: 80, Referenced Standards

Section: UL, 9540A, 9540

Rationale: The SFM conducted a 15-Day public comment period and received additional comments that are addressed in section: OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S).

Adjustments to the adoption of reference standards came from a public comment submitted by John Taecker. Jon Tacker's public comment states, "UL is fully supportive of the SFM's proposal to bring in the requirements for energy storage systems from the 2021 International Fire Code. It appears one thing was overlooked, which was updating the referenced standard UL 9540. To identically match the update of this standard that was adopted in the 2021 International Fire Code (reference Proposal ADM47-19), UL 9540 should be referenced in Chapter 80 as follows: "9540—2016 Standard for Energy Storage Systems and Equipment".

In response to the public comment, the SFM is proposing to update the edition of UL 9540 to identically match the update of this standard as it was adopted in the 2021 International Fire Code (reference Proposal ADM47-19). It is needed to address all the

other proposed updates to Energy Storage Systems in Chapter 12 of the California Fire Code.

MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS

Pursuant to Government Code Section 11346.9(a)(2), if the determination as to whether the proposed action would impose a mandate, the agency shall state whether the mandate is reimbursable pursuant to Part 7 of Division 4. If the agency finds that the mandate is not reimbursable, it shall state the reasons for the finding(s).

The State Fire Marshal has determined that the proposed regulatory action would not impose a mandate on local agencies or school districts.

The proposed regulations are minimum standards for the prevention of fire and for the protection of life and property against fire.

The State Fire Marshal finds that the mandate is not reimbursable.

The State Fire Marshal (SFM) finds that the mandate is not reimbursable pursuant to Part 7 (commencing with section 17500) of Division 4, Government Code. Health and Safety Code Sections 1250, 13143, 13211, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51176, 51177, 51178, 51179, 51189, Education Code 17074.50 and Public Resources Code Sections 4201 through 4204 requires the SFM to prepare and adopt regulations establishing minimum standards for the prevention of fire and for the protection of life and property against fire.

OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S).

Government Code Section 11346.9(a)(3) requires a summary of EACH objection or recommendation regarding the specific adoption, amendment, or repeal proposed, and an explanation of how the proposed action was changed to accommodate each objection or recommendation, or the reasons for making no change. This requirement applies only to objections or recommendations specifically directed at the agency's proposed action or to the procedures followed by the agency in proposing or adopting the action, or reasons for making no change. Irrelevant or repetitive comments may be aggregated and summarized as a group.

Regarding Item SFM 02/19-2-1 thru SFM 02-19-2-20, Section R327 of Final Express Terms.

The SFM is proposing to bring in regulations for Energy Storage Systems (ESS) for California based on the growing interest in the installation of home systems. As this industry advances in technology it is important to recognize the safe guards that are in place by testing's laboratories and industry experts. The need for requirements was also highlighted by the recent October 2019 Pacific, Gas and Electric power shut off. This proposal gives Building and Fire departments the minimum safety requirements for these systems installed for residential occupancies.

Commenter(s): Joe Cain, P.E., Solar Energy Industries Association (SEIA)

Commenter(s) Recommendation: We appreciate SFM's efforts to incorporate the language of Section R327 for residential Energy Storage Systems from the 2021 IRC, as early adopters. This language is improved from the 2018 IRC. We have identified some typographical errors and recommended editorial changes, which are provided.

We have concurrently submitted public comments for Part 9, Section 1206.11 for residential Energy Storage Systems. We feel strongly that the technical provisions for residential ESS should be consistent, regardless of whether an applicant or enforcement agency picks up the California Fire Code or the California Residential Code.

We have recommended changes for both Part 2.5 Section R327 and Part 9 Section 1206.11, for correlation and for consistency with the technical requirements and language of the 2021 IFC and IRC model codes.

Agency Response: The SFM submitted a 15-Day rulemaking to correlate the Residential and Fire code regulations. Other considerations proposed by the commenter may be considered for the next triennial rulemaking.

Regarding Item SFM 02/19-2-1 thru SFM 02-19-2-20, Section R327 of Final Express Terms.

Commenter(s): Solar Energy Industries Association (SEIA)

Commenter(s) Recommendation: We are also providing markups of both California Residential Code Section R327 (to correct minor edits and corrections in the SFM draft), and the California Fire Code Section 1206.11 to include edits to correlate the CFC with the CRC, such that the technical requirements for Group R3 and R4 match the technical requirements for one- and two-family dwellings.

If you choose to approve these edits, installers of residential ESS and enforcing agencies can have a clear understanding of the requirements, and we can avoid negotiations at the permitting counter. We wish to also make it clear that the simplest way to understand these requirements is to reference CRC Section R327.

Agency Response: The SFM submitted a 15-Day rulemaking to correlate the Residential and Fire code regulations. Other considerations proposed by the commenter may be considered for the next triennial rulemaking.

Regarding Item SFM 02/19-2-6, Section R327.4 of Final Express Terms.

The locations where ESS are allowed is similar to the 2021 IFC and NFPA 855, with the following modifications:

Item 3 corrected an oversight and allows ground mounted ESS to be installed adjacent to buildings on the property.

Item 4 addressed concerns raised in ICC Group B 2021 proposals RB154, RB155, RB156, RB157 about ESS installations in utility closets, basements, storage or utility spaces.

The last sentence clarifies that ESS is not allowed in sleeping rooms or closets or spaces opening directly into them.

Commenter(s): Nick Duvally, Fire Marshal Assistant Chief, Los Angeles Fire Department

Commenter(s) Recommendation: Delete the requirements of R327.4 item 4. It is unsafe to allow ESS without a listing to be installed exactly in the locations (those of option #4 of proposed R327.4) where it has been identified for which they are not safe enough to qualify for the listing. New construction will be designed to accommodate these ESS; the code should lead builders to do so such that these ESS do not need to be installed in locations where they are not safe. For existing construction that wishes to install an ESS, either select a technology that meets the safety standard to qualify for listing as “For use in residential dwelling units”, or install one that is not, but do so outside the envelope of the habitable space (i.e. in location options #1 through #3).

Agency Response: The SFM has not incorporated the requested recommendation for this rulemaking. The SFM proposed code change brings in regulations that have been vetted through the national ICC model code rulemaking process. The early adoption is for industry use. The energy storage industry is evolving faster than the codes can keep up. The SFM is proposing the early adoption of these regulations to improve on the current regulations.

Regarding Item SFM 02/19-2-9, Section R327.7 of Final Express Terms.

Fire detection includes the same requirements as the 2021 IFC and NFPA 855, with minor edits. Per public comments that were heard at the CAC hearings, SFM has removed the requirement for interconnection of heat detectors to smoke alarms. The Residential code does not require interconnection.

Commenter(s): Mark Rodriguez, Sunrun, CALSSA

Commenter(s) Recommendation: The SFM proposal for California Residential code R327.7 conflicts with CRC section R314.4 for the interconnection of smoke and heat alarms. None of the exceptions listed in R314.4 have been incorporated into the new language creating a situation that is costly and onerous to comply. New homes are not built with this circuit in mind.

Agency Response: The SFM has removed the requirement for interconnection of heat detectors to smoke alarms. The Residential code does not require interconnection.

Regarding Item SFM 02/19-3-3, Section UL 9540 of Final Express Terms.

Commenter(s): John Taecker, UL LLC

Commenter(s) Recommendation: UL is fully supportive of the SFM's proposal to bring in the requirements for energy storage systems from the 2021 International Residential Code. It appears one thing was overlooked, which was updating the referenced standard UL 9540. To identically match the update of this standard that was adopted in the 2021 International Residential Code (reference Proposal ADM47-19), UL 9540 should be referenced in Chapter 44 as follows: "9540—2016 Standard for Energy Storage Systems and Equipment".

Agency Response: In response to the public comment, the SFM is proposing to update the edition of UL 9540 to identically match the update of this standard as it was adopted in the 2021 International Fire Code (reference Proposal ADM47-19). It is needed to address all the other proposed updates to Energy Storage Systems in Chapter 12 of the California Fire Code.

Regarding Item SFM 02/19-3-3, Section UL 9540 of Final Express Terms.

Commenter(s): Nick Duvally and Josh Costello, Los Angeles Fire Department

Commenter(s) Recommendation: It is our opinion that for the sake of safety, especially safety regarding large potentially hazardous products being allowed to be installed within utility or storage spaces that can open directly to the habitable spaces of dwellings, or even within the livable spaces themselves (for those that meet the listing/marketing requirements "For use in residential dwelling units"), that the 2020 edition of the UL 9540 standard is necessary to be referenced.

Agency Response: The SFM has not incorporated the requested recommendation for this rulemaking. The SFM may consider the updated edition of the standard for the next triennial rulemaking. The early adoption of the latest standard will require a cost analysis for potential industry impact.

Regarding Item SFM 02/19-3-3, Section UL 9540 of Final Express Terms.

Commenter(s): Matt D. Paiss, Pacific Northwest National Laboratory

Commenter(s) Recommendation: Update the edition of UL 9540 to the 2020 edition. The UL 9540-2016 standard will be leaving a significant safety gap for residential installations by not requiring the UL9540a fire testing as part of the overall 9540 certifications. The requirement in the 2020 edition for large scale fire testing under UL 9540a for residential batteries fills a gap from the UL9540-2016 standard where this testing is not required.

Given the Fire Code will be allowing ESS into dwelling basements, utility, and storage closets, the behavior of products in failure is critical to the safety of residential occupants and this latest edition should be utilized in the listing requirements. Many utility spaces open to hallway spaces, bathrooms, and other living areas.

ESS placed in these locations must ensure that flammable or toxic gasses are not emitted placing residents at potential risk, as cited in the exterior requirements limiting placement close to doors or windows. Under the 2016 edition of 9540, there is no fire testing requirement for ESS.

Agency Response: The SFM did not incorporate the requested recommendation in this rulemaking. The same change is requested for The Fire Code Part 9. The SFM may consider the updated edition of the standard for the next triennial rulemaking. The early adoption of the latest standard will require a cost analysis for potential industry impact.

DETERMINATION OF ALTERNATIVES CONSIDERED AND EFFECT ON PRIVATE PERSONS

Government Code Section 11346.9(a)(4) requires a determination with supporting information that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed, or would be as effective and less burdensome to affected private persons than the adopted regulation, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law.

The SFM has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective as and less burdensome to affected private persons than the proposed adoption by reference with SFM amendments. Therefore, there are no alternatives available to the SFM regarding the proposed adoption and amendment of this code.

REJECTED PROPOSED ALTERNATIVE THAT WOULD LESSEN THE ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES:

Government Code Section 11346.9(a)(5) requires an explanation setting forth the reasons for rejecting any proposed alternatives that would lessen the adverse economic impact on small businesses, including the benefits of the proposed regulation per 11346.5(a)(3).

n/a