

## Federal Management Regulation

## § 102–80.145

available for escape and the time required for evacuation of building occupants would be the target margin of safety. Various alternative protection strategies would have to be evaluated to determine their impact on the times at which hazardous conditions developed in the spaces of interest and the times required for egress. If a combination of fire protection systems provides a margin of safety equal to or greater than the target margin of safety, then the combination could be judged to provide an equivalent level of safety.

(c) As a third option, other technical analysis procedures, as approved by the responsible agency head, can be used to show equivalency.

### § 102–80.120 What analytical and empirical tools should be used to support the life safety equivalency evaluation?

Analytical and empirical tools, including fire models and grading schedules such as the Fire Safety Evaluation System (Alternative Approaches to Life Safety, NEPA 101A) should be used to support the life safety equivalency evaluation. If fire modeling is used as part of an analysis, an assessment of the predictive capabilities of the fire models must be included. This assessment should be conducted in accordance with the American Society for Testing and Materials Standard Guide for Evaluating the Predictive Capability of Fire Models (ASTM E 1355).

### § 102–80.125 Who has the responsibility for determining the acceptability of each equivalent level of safety analysis?

The head of the agency responsible for physical improvements in the facility or providing Federal assistance or a designated representative will determine the acceptability of each equivalent level of safety analysis. The determination of acceptability must include a review of the fire protection engineer's qualifications, the appropriateness of the fire scenarios for the facility, and the reasonableness of the assumed maximum probable loss. Agencies should maintain a record of each accepted equivalent level of safety analysis and provide copies to fire departments or other local authorities for use in developing prefire plans.

### § 102–80.130 Who must perform the equivalent level of safety analysis?

A qualified fire protection engineer must perform the equivalent level of safety analysis.

### § 102–80.135 What is a qualified fire protection engineer?

A *Qualified fire protection engineer* is defined as an individual, with a thorough knowledge and understanding of the principles of physics and chemistry governing fire growth, spread, and suppression, meeting one of the following criteria:

(a) An engineer having an undergraduate or graduate degree from a college or university offering a course of study in fire protection or firesafety engineering, plus a minimum of 4 years work experience in fire protection engineering;

(b) A professional engineer (P.E. or similar designation) registered in Fire Protection Engineering; or

(c) A professional engineer (P.E. or similar designation) registered in a related engineering discipline and holding Member grade status in the International Society of Fire Protection Engineers.

## ROOM OF ORIGIN

### § 102–80.140 What is meant by “room of origin”?

*Room of origin* means an area of a building where a fire can be expected to start. Typically, the size of the area will be determined by the walls, floor, and ceiling surrounding the space. However, this could lead to unacceptably large areas in the case of open plan office space or similar arrangements. Therefore, the maximum allowable fire area should be limited to 200 m<sup>2</sup> (2000 ft<sup>2</sup>) including intervening spaces. In the case of residential units, an entire apartment occupied by one tenant could be considered as the *room of origin* to the extent it did not exceed the 200 m<sup>2</sup> (2000 ft<sup>2</sup>) limitation.

## FLASHOVER

### § 102–80.145 What is meant by “flashover”?

*Flashover* means fire conditions in a confined area where the upper gas

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layer temperature reaches 600 °C (1100 °F) and the heat flux at floor level exceeds 20 kW/m<sup>2</sup> (1.8 Btu/ft<sup>2</sup>/sec).

REASONABLE WORST CASE FIRE SCENARIO

§ 102-80.150 What is meant by “reasonable worst case fire scenario”?

Reasonable worst case fire scenario means a combination of an ignition source, fuel items, and a building location likely to produce a fire which would have a significant adverse impact on the building and its occupants. The development of reasonable worst case scenarios must include consideration of types and forms of fuels present (e.g., furniture, trash, paper, chemicals), potential fire ignition locations (e.g., bedroom, office, closet, corridor), occupant capabilities (e.g., awake, intoxicated, mentally or physically impaired), numbers of occupants, detection and suppression system adequacy and reliability, and fire department capabilities. A quantitative analysis of the probability of occurrence of each scenario and combination of events will be necessary.

PART 102-81—SECURITY

Sec.

102-81.5 What is the scope of this part?

102-81.10 What basic security policy governs Federal agencies?

102-81.15 Who is responsible for upgrading and maintaining security standards in each Federally-owned facility?

102-81.20 Are the security standards for new federally owned and leased facilities the same as the standards for existing federally owned and leased facilities?

102-81.25 Do the Interagency Security Committee Security Design Criteria apply to all new federally owned and leased facilities?

102-81.30 What information must job applicants at child care centers reveal?

AUTHORITY: 40 U.S.C. 318a, 486(c) and 490.

SOURCE: 66 FR 5359, Jan. 18, 2001, unless otherwise noted.

§ 102-81.5 What is the scope of this part?

The real property policies contained in this part apply to Federal agencies, including the GSA/Public Buildings Service (PBS), operating under, or sub-

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ject to, the authorities of the Administrator of General Services.

§ 102-81.10 What basic security policy governs Federal agencies?

Federal agencies on Federal property under the charge and control of the Administrator and having a security delegation of authority from the Administrator must provide for the security and protection of the real estate they occupy, including the protection of persons within the property.

§ 102-81.15 Who is responsible for upgrading and maintaining security standards in each existing federally-owned and leased facility?

In a June 28, 1995, Presidential Policy Memorandum for Executive Departments and Agencies, entitled, “Upgrading Security at Federal Facilities” (see the Weekly Compilation of Presidential Documents, vol. 31, p. 1148), the President directed that executive agencies must, where feasible, upgrade and maintain security in facilities they own or lease under their own authority to the minimum standards specified in the Department of Justice’s June 28, 1995 study entitled “Vulnerability Assessment of Federal Facilities.” The study may be obtained by writing to the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA, 15250-7954.

[67 FR 76879, Dec. 13, 2002]

§ 102-81.20 Are the security standards for new federally owned and leased facilities the same as the standards for existing federally owned and leased facilities?

No, the minimum standards specified in the Department of Justice’s June 28, 1995 study entitled “Vulnerability Assessment of Federal Facilities” identifies the minimum-security standards that agencies must adhere to for all existing owned and leased Federal facilities. As specified in § 102-81.25, new federally owned and leased facilities must be designed to meet the standards identified in the document entitled “Interagency Security Committee Security Design Criteria for New Federal Office Buildings and Major Modernization Projects,” dated May 28, 2001. The security design criteria for new facilities takes into consideration technology