

User's Guide to Technical Bulletins

Including Key Word/Subject Index



FEDERAL EMERGENCY MANAGEMENT AGENCY
MITIGATION DIRECTORATE

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(5/01)

TECHNICAL BULLETIN GUIDE-01

User's Guide to Technical Bulletins Including Key Word/Subject Index

The User's Guide

This User's Guide is intended to assist those using the Technical Bulletins issued by the Federal Emergency Management Agency (FEMA), Mitigation Directorate. This guide contains a Key Word/Subject Index that identifies topics contained in the Technical Bulletins regarding the National Flood Insurance Program (NFIP). Reference sources and information about ordering additional NFIP publications are also provided.

The Technical Bulletins

The Technical Bulletins provide guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3. The bulletins are intended for use primarily by state and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically, as necessary. The bulletins do not create regulation; rather, they provide specific guidance for complying with the minimum requirements of existing NFIP regulations. Users of the Technical Bulletins who need additional guidance concerning NFIP regulatory requirements should contact the appropriate FEMA Regional Office (see page 6).

Comments on the Technical Bulletin Series should be addressed to:

Federal Emergency Management Agency
Mitigation Directorate
Program Policy and Assessment Branch
500 C Street, SW.
Washington, DC 20472

Copies of the Technical Bulletins can be obtained from the FEMA Regional Office that serves your area (see page 6). In addition, Technical Bulletins and other FEMA publications can be ordered from the FEMA Publications Service Center at 1-800-480-2520. The Technical Bulletins are also available at the FEMA web site at www.fema.gov.

It should be noted that Technical Bulletins provide guidance on the minimum requirements of the NFIP regulations. Community or State requirements that exceed those of the NFIP take precedence. Design professionals should contact the community to determine whether more restrictive local or State regulations apply to the building or site in question. All applicable standards of the State or local building code must also be met for any building in a flood hazard area.

Available Technical Bulletins

As of August 2000, the following Technical Bulletins are available:

Guide-01 User's Guide to Technical Bulletins

Provides a list of available technical bulletins, a key word/subject reference index for all the bulletins, and information about how to obtain copies of the bulletins.

1-93 Openings in Foundation Walls

Provides guidance on the NFIP regulations concerning the requirement for openings in below-Base Flood Elevation (BFE) foundation walls for buildings located in Zones A, AE, A1, A30, AR, AO, and AH.

2-93 Flood-Resistant Materials Requirements

Provides guidance on the NFIP regulations concerning the required use of flood-damage resistant construction materials for building components located below the BFE in Special Flood Hazard Areas (SFHAs)—both A zones and V zones.

3-93 Non-Residential Floodproofing – Requirements and Certification

Provides guidance on the NFIP regulations concerning watertight construction and the required certification for floodproofed non-residential buildings in Zones A, AE, A1-A30, AR, AO, and AH whose lowest floors are below the BFE.

4-93 Elevator Installation

Provides guidance on the NFIP regulations concerning the installation of elevators below the BFE in SFHAs—both A and V zones.

5-93 Free-of-Obstruction Requirements

Provides guidance on the NFIP regulations concerning obstructions to flood waters below elevated buildings and on building sites in Coastal High Hazard Areas (Zones V, VE, and V1-V30).

6-93 Below-Grade Parking Requirements

Provides guidance on the NFIP regulations concerning the design of below-grade parking garages beneath buildings located in Zones A, AE, A1-A30, AR, AO, and AH.

7-93 Wet Floodproofing Requirements

Provides guidance on the NFIP regulations concerning wet floodproofing of certain types of structures located in Zones A, AE, A1-A30, AR, AO, and AH.

8-96 Corrosion Protection for Metal Connectors in Coastal Areas

Provides guidance on the need for, selection of, and use of corrosion-resistant metal connectors for the construction of buildings in coastal areas.

9-99 Design and Construction Guidance for Breakaway Walls Below Elevated Buildings in Coastal Areas

Provides prescriptive criteria for the design and construction of wood-frame and masonry breakaway walls compliant with NFIP regulatory requirements.

10-01 Ensuring That Structures Built on Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding

Provides regulatory and technical guidance concerning the construction of buildings with various types of foundations, including basements, in areas removed from the SFHA through the placement of fill and in areas near the SFHA.

Key Word/Subject Index

This index is designed to allow the user to quickly locate key words that pertain to the subject in question. The index also cross-references issues that are addressed by more than one Technical Bulletin. For example, users of Technical Bulletin 6 (Below-Grade Parking Requirements) should also refer to Technical Bulletin 3 (Non-Residential Floodproofing – Requirements and Certification) concerning insurance rating issues.

Technical Bulletin

Key Words and Subjects

3	A-zone floodproofing
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5	accessory buildings, low value and small, defined
7	accessory structures
7	agricultural structures
10	basement construction, engineered option
10	basement construction, simplified approach
1	basement, definition of
10	basement foundation in fill, not recommended
10	basement foundation in fill, vulnerability to subsurface flooding
10	basement foundation, in fill placed above the BFE
10	basement foundation, with lowest floor at or above BFE
10	basement foundation, with lowest opening above BFE
10	basement foundation, with lowest opening at BFE
6	below-grade parking garage, considered a basement
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6	below-grade parking in A and V zones, when allowed, requirements for
9	breakaway wall, failure modes
9	breakaway wall, insurance considerations
2,9	breakaway wall materials in V zones, made of flood-resistant materials
9	breakaway wall, NFIP regulatory requirements
9	breakaway wall, specifications for NFIP-compliant construction

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Key Words and Subjects

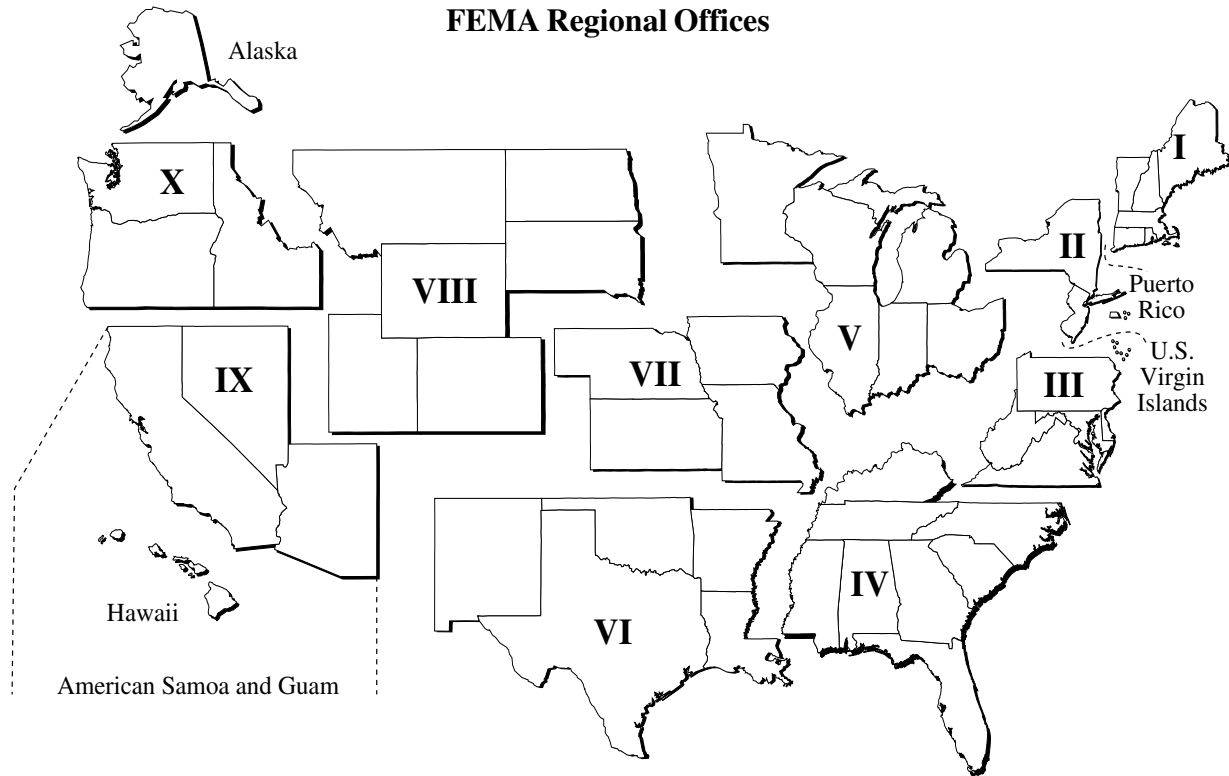
9	breaking wave, impact on vertical surface
5	bulkheads, as possible obstructions in V zones
10	community permitting, administrative options for
8	corrosion, classes of building exposure to
8	corrosion, causes of
8	corrosion, identifying high-risk buildings
8	corrosion, planning for
8	corrosion-resistant materials for sheetmetal connectors
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5	detached garages, elevation requirement for in V zones
10	earthen fill, placed to remove land from the SFHA
10	earthen fill, zones where prohibited
4	elevators, types of
4	elevator components, location of in relation to Base Flood Elevation
4	elevator electrical equipment, location of in relation to Base Flood Elevation
10	fill, areas where prohibited
5	fill, as obstruction beneath buildings in V zones
10	fill, proper placement of
4	float switch, use of in flood areas (for elevator cab)
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2	flood-resistant flooring materials
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2	flood-resistant material, definition of
2	flood-resistant wall and ceiling materials
3	floodproofing certificate, non-residential
6	floodproofing, below-grade parking beneath non-residential buildings, design requirements for
3	floodproofing, Emergency Operations Plan, minimum acceptable
3	floodproofing, Inspection and Maintenance Plan
3,6	floodproofing, recognition of for insurance rating purposes
5	foundation bracing, as possible obstructions in V zones
10	foundation flood risk, summary table
1	foundations in A zones
1	foundation openings in A zones, size, how to calculate
1	foundation vents in A zones
5	free of obstruction, definition of
5	free of obstruction, designing a foundation system in V zones
5	free of obstruction requirements in V zones
10	freeboard, recommendations
7	functionally dependent use

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1	garage doors, to meet the openings requirement
7	garages, attached to non-residential structure
1,7	garages, attached to residential buildings
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3	high hazard area, safety and access in
7	historic buildings
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3	hydrostatic forces on floodproofed building
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1	hydrostatic pressure, how to calculate
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10	insurance coverage for basement flooding, restrictions
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2	latticework in V zones, made of flood-resistant materials
3	lowest floor, definition of
3	non-residential floodproofing certificate, how to fill out
1	openings for foundations in A zones
10	professional certification
10	professional certification, sample form
10	"reasonably safe from flooding," defined
10	"reasonably safe from flooding," NFIP regulations concerning
1	safety factor for foundation openings
8	salt spray from breaking waves
10	slab-on-grade foundation
10	stem wall foundation
10	sump pump, requirements for simplified basement construction
5	swimming pools, beneath buildings in V zones
1	substantial damage, foundation wall openings requirement
1	substantial improvement, foundation wall openings requirement
2	U.S. Army Corps of Engineers, <i>Flood Proofing Regulations</i>
7	variances from NFIP requirements
7	variances, issuance in designated floodways
7	wet floodproofing, definition of
7	wet floodproofing, engineering considerations
7	wet floodproofing, flood insurance implications
7	wet floodproofing, planning considerations

FEMA Regional Offices



Region I	Mitigation Division J. W. McCormick POCH Room 442 Boston, MA 02109-4595 (617) 223-9540	Region VI	Mitigation Division Federal Regional Center 800 North Loop 288 Denton, TX 76201-3698 (940) 898-5399
Region II	Mitigation Division 26 Federal Plaza, Room 1337 New York, NY 10278-0002 (212) 225-7209	Region VII	Mitigation Division 2323 Grand Boulevard, Suite 900 Kansas City, MO 64108-2760 (816) 283-7062
Region III	Mitigation Division One Independence Mall 615 Chestnut Street, Sixth Floor Philadelphia, PA 19106-4404 (215) 931-5621	Region VIII	Mitigation Division Denver Federal Center Building 710, Box 25267 Denver, CO 80225-0267 (303) 235-4812
Region IV	Mitigation Division 3003 Chamblee Tucker Road Room 270 Atlanta, GA 30341 (770) 220-5200	Region IX	Mitigation Division Presidio of San Francisco Building 105 San Francisco, CA 94129-1250 (415) 923-7100
Region V	Mitigation Division 536 S. Clark Street, 6th Floor Chicago, IL 60605-1521 (312) 408-5500	Region X	Mitigation Division Federal Regional Center 130 228th Street, SW Bothell, WA 98021-9796 (425) 487-4604

Other Federal agencies that provide floodplain management assistance include the U.S. Army Corps of Engineers and the U.S. Natural Resources Conservation Service. For their nearest locations, please refer to your local telephone directory under “United States Government.”