## General Basement Exception Guidelines

National Flood Insurance Program (NFIP) floodplain management criteria at 44 CFR 60.6 (c) provide for the granting of exceptions to permit construction of floodproofed basements along streams whose floodplains are designated as Zones Al-30, AO, AH or AE if flood characteristics throughout the community meet specified criteria. Exceptions are granted to communities that can demonstrate that their flood hazard areas are subject to shallow and low velocity flooding and that there is adequate flood warning time.

To be considered for a basement exception, the community must submit information which verifies that 100-year flood velocities do not exceed 5 feet per second, that 100-year flood depths do not exceed 5 feet in areas adjacent to land above the BFE and 3 feet in areas which would be surrounded by water during the 100-year flood, and that 100-year flood warning times- are 12 hours or greater for all streams studied by detailed methods within the community (for flood warning times of between 2 and 12 hours, the community must demonstrate that it has a flood warning system and emergency plan in operation that ensures the safe evacuation of floodplain residents. If less than 2 hours, the exception request would automatically be denied). Please note that basement exceptions will not apply to structures located within the floodways designated on the community's Flood Boundary Floodway Map (FHBM).

Data in support of the flood <u>velocity</u> criterion can be obtained from the Flood Insurance Study (FIS) which has been prepared for the community." Depth information is derived from topographic maps of sufficient detail and scale so that flood depths can be determined to the nearest foot. <u>Flood warning time</u> is defined as the elapsed time from when an impending flood can first be detected to when floodwaters begin to cut off access to structures in the community. During this period of time, local officials must notify floodplain occupants of the flood and any evacuations which would have to take place. Flood warning time is thus partly a function of the natural characteristics of a given watercourse's watershed, which can be determined by a hydrologist. Warning time information must be reported for each stream studied by detailed methods within the community.

To apply for an exception under 44 CFR 60.6 (c), the data described above should be submitted by the community's CEO to this office at the following address:

Federal Emergency Management Agency Region VII Natural & Technological Hazards Division 911 Walnut, Room 200 Kansas City, MO 64106

Please be advised that the exception will not become effective until the community submits proof to the Regional Office that the proper floodplain management ordinances have been adopted as detailed in 60.6 (c) (2).

# DEPARTMENT OF HOMELAND SECURITY

FEDERAL EMERGENCY MANAGEMENT AGENCY
RESIDENTIAL BASEMENT FLOODPROOFING CERTIFICATE

See Reverse Side for Paperwork Burden Disclosure Statement

O.M.B. No. 1660-0033 Expires August 31, 2013

For use ONLY in communities that have been granted an exception by FEMA to allow the construction of floodproofed residential basements in Special Flood Hazard Areas. BUILDING OWNER'S NAME FOR INSURANCE COMPANY USE POLICY NUMBER BUILDING STREET ADDRESS (Including Apt., Unit Number) COMPANY NAIC NUMBER OTHER DESCRIPTION (Lot and Block Numbers, etc.) CITY ZIP CODE STATE SECTION I - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION Provide the following from the FIRM and flood profile (from Flood Insurance Study) DATE OF BASE FLOOD ELEVATION NAME OF FLOODING SOURCE(S) COMMUNITY PANEL SUFFIX ZONE NUMBER NUMBER FIRM (IN AO ZONES, USE DEPTH) AFFECTING BUILDING SECTION II - FLOODPROOFING INFORMATION (By a Registered Professional Engineer or Architect) Floodproofing Design Elevation Information: Building is floodproofed to an elevation of . (Elevation datum used must be the same as that on the FIRM.) Elevation of the top of the basement floor is (Note: The floodproofing design elevation must be at least one foot above the Base Flood Elevation [BFE]) SECTION III - CERTIFICATION (By a Registered Professional Engineer or Architect) Residential Floodproofed Basement Construction Certification: I certify that, based upon development and/or review of structural design specifications, and plans for construction, including consideration of the depth, velocity, and duration of flooding and the type and permeability of soils at the site, the design and methods of construction of the floodproofed basement to be used are in accordance with accepted standards of practice for meeting the following provisions: · Basement area, together with attendant utilities and sanitary facilities, is watertight to the floodproofing design elevation with walls that are impermeable to the passage of water without human intervention; and • Basement walls and floor are capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from flooding to the floodproofing design elevation; and have been designed so that minimal damage will occur from floods that exceed the floodproofing design elevation; and · Building design, including the floodproofing design elevation, complies with community requirements. I certify that the information on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code Section 1001. CERTIFIER'S NAME LICENSE NUMBER (or affix Seal) TITLE COMPANY NAME ADDRESS CITY STATE ZIP SIGNATURE PHONE NO. DATE Copies of this certificate must be given to: 1) the community official; 2) the insurance agent; and 3) the building owner.

## PAPERWORK BURDEN DISCLOSURE STATEMENT

# Residential Basement Floodproofing Certificate

FEMA Form 086-0-24

Public reporting burden for this data collection is estimated to average 3.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this Residential Basement Floodproofing Certificate. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of this Residential Basement Floodproofing Certificate. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (1660-0033) NOTE: Do not send your completed form to this address.

base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in paragraph (a)(6) of this section; and

- (6) A community shall (i) maintain a record of all variance actions, including justification for their issuance, and (ii) report such variances issued in its annual or biennial report submitted to the Administrator.
- (7) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria of paragraphs (a)(1) through (a)(4) of this section are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- (b)(1) The requirement that each flood-prone, mudslide (i.e., mudflow)prone, and flood-related erosion prone community must adopt and submit adequate flood plain management regulations as a condition of initial and continued flood insurance eligibility is statutory and cannot be waived, and such regulations shall be adopted by a community within the time periods specified in §§ 60.3, 60.4 or § 60.5. However, certain exceptions from the standards contained in this subpart may be permitted where the Administrator recognizes that, because of extraordinary circumstances, local conditions may render the application of certain standards the cause for severe hardship and gross inequity for a particular community. Consequently, a community proposing the adoption of flood plain management regulations which vary from the standards set forth in §§ 60.3, 60.4, or § 60.5, shall explain in writing to the Administrator the nature and extent of and the reasons for the exception request and shall include sufficient supporting economic, environmental. topographic, logic, and other scientific and technical data, and data with respect to the impact on public safety and the environment.
- (2) The Administrator shall prepare a Special Environmental Clearance to determine whether the proposal for an

exception under paragraph (b)(1) of this section will have significant impact on the human environment. The decision whether an Environmental Impact Statement or other environmental document will be prepared, will be made in accordance with the procedures set out in 44 CFR part 10. Ninety or more days may be required for an environmental quality clearance if the proposed exception will have significant impact on the human environment thereby requiring an EIS.

- (c) A community may propose flood plain management measures which adopt standards for floodproofed residential basements below the base flood level in zones A1-30, AH, AO, and AE which are not subject to tidal flooding. Nothwithstanding the requirements of paragraph (b) of this section the Administrator may approve the proposal provided that:
- (1) The community has demonstrated that areas of special flood hazard in which basements will be permitted are subject to shallow and low velocity flooding and that there is adequate flood warning time to ensure that all residents are notified of impending floods. For the purposes of this paragraph flood characteristics must include:
- (i) Flood depths that are five feet or less for developable lots that are contiguous to land above the base flood level and three feet or less for other lots:
- (ii) Flood velocities that are five feet per second or less; and
- (iii) Flood warning times that are 12 hours or greater. Flood warning times of two hours or greater may be approved if the community demonstrates that it has a flood warning system and emergency plan in operation that is adequate to ensure safe evacuation of flood plain residents.
- (2) The community has adopted flood plain management measures that require that new construction and substantial improvements of residential structures with basements in zones Al-30, AH, AO, and AE shall:
- (i) Be designed and built so that any basement area, together with attendant utilities and sanitary facilities below the floodproofed design level, is

watertight with walls that are impermeable to the passage of water without human intervention. Basement walls shall be built with the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy reflooding from sulting floodproofed design level, and shall be designed so that minimal damage will occur from floods that exceed that level. The floodproofed design level shall be an elevation one foot above the level of the base flood where the difference between the base flood and the 500-year flood is three feet or less and two feet above the level of the base flood where the difference is greater than three feet.

- (ii) Have the top of the floor of any basement area no lower than five feet below the elevation of the base flood;
- (iii) Have the area surrounding the structure on all sides filled to or above the elevation of the base flood. Fill must be compacted with slopes protected by vegetative cover;
- (iv) Have a registered professional engineer or architect develop or review the building's structual design, specifications, and plans, including consideration of the depth, velocity, and duration of flooding and type and permeability of soils at the building site, and certify that the basement design and methods of construction proposed are in accordance with accepted standards of practice for meeting the provisions of this paragraph;
- (v) Be inspected by the building inspector or other authorized representative of the community to verify that the structure is built according to its design and those provisions of this section which are verifiable.
- [41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 48 FR 44543 and 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36025, Sept. 4, 1985; 51 FR 30308, Aug. 25, 1986; 54 FR 33550, Aug. 15, 1989]

# § 60.7 Revisions of criteria for flood plain management regulations.

From time to time part 60 may be revised as experience is acquired under the Program and new information becomes available. Communities will be given six months from the effective date of any new regulation to revise

their flood plain management regulations to comply with any such changes.

#### § 60.8 Definitions.

The definitions set forth in part 59 of this subchapter are applicable to this part.

# Subpart B—Requirements for State Flood Plain Management Regulations

## § 60.11 Purpose of this subpart.

- (a) A State is considered a "community" pursuant to §59.1 of this subchapter; and, accordingly, the Act provides that flood insurance shall not be sold or renewed under the Program unless a community has adopted adequate flood plain management regulations consistent with criteria established by the Administrator.
- (b) This subpart sets forth the flood plain management criteria required for State-owned properties located within special hazard areas identified by the Administrator. A State shall satisfy such criteria as a condition to the purchase of a Standard Flood Insurance Policy for a State-owned structure or its contents, or as a condition to the approval by the Administrator, pursuant to part 75 of this subchapter, of its plan of self-insurance.
- [41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, and amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

## § 60.12 Flood plain management criteria for State-owned properties in special hazard areas.

- (a) The State shall comply with the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5. A State either shall:
- (1) Comply with the flood plain management requirements of all local communities participating in the program in which State-owned properties are located; or
- (2) Establish and enforce flood plain management regulations which, at a minimum, satisfy the criteria set forth in §§ 60.3, 60.4, and 60.5.
- (b) The procedures by which a state government adopts and administers flood plain management regulations satisfying the criteria set forth in