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FEMA POLICY: Floodplain Management Requirements for Agricultural Structures and Accessory Structures

FEMA Policy #104-008-03
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BACKGROUND

This policy is intended to provide clarification and technical assistance to National Flood Insurance Program (NFIP) State/Tribe/Territory Coordinators and local floodplain administrators regarding implementation of the NFIP design and performance standards for agricultural structures and accessory structures. This policy establishes standards for these structures, as defined in this policy, which are located within the Special Flood Hazard Areas (SFHAs) designated in FEMA's Flood Insurance Studies and effective Flood Insurance Rate Maps. This policy clarifies the requirements for granting variances and exceptions to the NFIP design and performance standards for agricultural and accessory structures in accordance with current FEMA regulations.

This policy supersedes portions of existing FEMA guidance related to agricultural structures and accessory structures found in NFIP Technical Bulletin 1 "Openings in Foundation Walls and Walls of Enclosures," NFIP Technical Bulletin 5 "Free-of Obstruction Requirements," and NFIP Technical Bulletin 7 "Wet Floodproofing Requirements." This policy also supersedes all specific communications and guidance on this subject from FEMA Regional Offices. In the event of a conflict between this policy and prior FEMA policies, bulletins, or guidance, this policy shall take precedence.

PURPOSE

The purpose of this policy is to acknowledge the unique characteristics and uses of agricultural structures and accessory structures within the SFHA to ensure sound development and promote public health, safety, and welfare. This policy clarifies the definition of agricultural structures and accessory structures and establishes a clear, consistent process for ensuring compliance with NFIP design and performance standards for those structures located within the SFHA.

Agricultural structures and accessory structures are non-residential structures, and the NFIP requires new construction and substantial improvements of non-residential structures in SFHAs to be elevated or dry floodproofed to or above the Base Flood Elevation (BFE). Dry floodproofing is not permissible in V Zones (V, VE, V1-V-30), which are defined on the effective Flood Insurance Rate Map. However, in accordance with the NFIP design and performance standards for floodplain management, wet floodproofing,

as applied to buildings constructed at-grade, below the required elevation, or elevated on fill, may be an allowable alternative mitigation technique for certain agricultural structures and accessory structures.

This policy does not provide clarification on eligibility or application of federal flood insurance for agricultural structures or accessory structures. Agricultural and accessory structures are generally eligible for federal flood insurance coverage under the NFIP. See FEMA's Flood Insurance Manual for information on the rules governing NFIP building coverage and/or contents coverage, including agricultural and accessory structures (as amended).

PRINCIPLES

This policy explains the minimum requirements for agricultural structures and accessory structures in general and the criteria for when and how wet floodproofing instead of elevating or dry floodproofing may be used in specific situations in accordance with current FEMA regulation and consistent with the principles outlined below.

A. Promote smart development and mitigation strategies for agricultural and accessory structures.
B. Provide clarity on how to meet the floodplain management and design and performance standards for construction of agricultural and accessory structures, especially in wide and deep floodplains.
C. Reduce the financial burden of meeting design and performance standards for certain low damage potential agricultural and accessory structures.

REQUIREMENTS

This section provides the NFIP floodplain management development requirements and design and performance standards for agricultural structures and accessory structures located within the SFHA and the requirements for granting exceptions to the minimum standards.

A. DEFINITIONS OF AGRICULTURAL STRUCTURE AND ACCESSORY STRUCTURE

Outcome: FEMA provides a clear NFIP definition of agricultural structures and accessory structures for floodplain management purposes, consistent with the National Flood Insurance Act of 1968 (NFIA) and the NFIP regulations.

1. An *agricultural structure* means a structure, as defined in 44 C.F.R. § 59.1, that is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock; an agricultural structure specifically excludes any structure used for human habitation.
    a. Agricultural structures are considered "walled and roofed" when the structure includes at least two outside rigid walls and a fully secured roof.
    b. The NFIP recognizes aquaculture to be farming that is conducted in water. As such, the NFIP considers an aquaculture structure to be included within the

NFIP definition of agricultural structure for floodplain management purposes, provided that:

i. The aquaculture structure meets the NFIP definition of a structure as defined in 44 C.F.R. § 59.1, for floodplain management purposes (walled and roofed), where walled and roofed shall be interpreted as having at least two outside rigid walls and a fully secured roof; and

ii. The aquaculture structure is used exclusively for the production, harvesting, storage, raising, or drying of aquatic animals or plants.

c. The following may be related to agricultural purposes or uses but are generally not considered to be agricultural structures by the NFIP:

i. Structures that do not meet the exclusive use requirement of the NFIP definition of agricultural structure, such as:

1. Structures used for human habitation, whether as a permanent residence or as temporary or seasonal living quarters;
2. Structures used by the public, such as a place of employment or entertainment; and
3. Structures with multiple, or mixed, uses where one or more use does not meet the definition of agricultural structure.

ii. Development that does not meet the NFIP definition of a structure for floodplain management purposes. Examples include, but are not necessarily limited to, a pole barn (roofed but not walled) or a holding pen or aquaculture tank/pool (walled but not roofed).

2. An *accessory structure* means a structure, as defined in 44 C.F.R. § 59.1, that is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure; an accessory structure specifically excludes structures used for human habitation.

a. Accessory structures are considered walled and roofed where the structure includes at least two outside rigid walls and a fully secured roof.

b. Examples of accessory structures include but are not necessarily limited to two-car detached garages (or smaller), carports, storage and tool sheds, and small boathouses.

c. The following may have uses that are incidental or accessory to the principal structure on a parcel but are generally not considered to be accessory structures by the NFIP:

i. Structures in which any portion is used for human habitation, whether as a permanent residence or as temporary or seasonal living quarters, such as a detached garage or carriage house that includes an apartment or guest quarters, or a detached guest house on the same parcel as a principal residence;

ii. Structures used by the public, such as a place of employment or entertainment; and

iii. Development that does not meet the NFIP definition of a structure for floodplain management purposes. Examples includes, but are not necessarily limited to, a gazebo, pavilion, picnic shelter, or carport that is open on all sides (roofed but not walled).

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B. NFIP MINIMUM FLOODPLAIN MANAGEMENT REQUIREMENTS FOR AGRICULTURAL STRUCTURES AND ACCESSORY STRUCTURES

Outcome: FEMA specifies clear construction requirements for agricultural structures and accessory structures located in the SFHA. Agricultural and accessory structures are not exempt from NFIP floodplain management requirements.

In addition to enforcing all other design and performance standards identified in 44 C.F.R. § 60.3 applicable to non-residential structures, communities must:

1. Require that new construction and substantial improvements of non-residential structures in the SFHA be constructed with the lowest floor elevated to or above the BFE or, together with attendant utility and sanitary facilities, be dry floodproofed to or above the BFE.
2. Require that enclosed areas below the lowest floor of non-residential structures used solely for building access, parking, or limited storage must include, at a minimum, adequate flood opening designed to automatically equalize hydrostatic flood forces.
3. Require that areas below the lowest floor within V Zones (V, VE, V1-V-30) be free of obstruction or constructed with non-supporting breakaway walls, open wood lattice work, or insect screening intended to collapse under wind and water loads without causing collapse or structural damage to the elevated portion of the building or foundation system.
4. Obtain and maintain a record of the certified elevation of the lowest floor for all new construction and substantial improvements and, where applicable, the certified elevation to which the structure has been dry floodproofed.

C. EXCEPTIONS TO THE NFIP MINIMUM FLOODPLAIN MANAGEMENT REQUIREMENTS FOR AGRICULTURAL STRUCTURES AND ACCESSORY STRUCTURES

Outcome: FEMA articulates clear requirements for granting exceptions to the NFIP minimum design and performance standards for agricultural structures and accessory structures.

1. **Agricultural Structures Only**. Per Section 1315(a)(2)(A) of the NFIA, agricultural structures located in the SFHA that are designated as repetitive loss, as defined in the NFIA, or substantially damaged by flood may be repaired and restored to pre-damaged conditions under the following criteria:
    a. Damage must be from flooding alone and must meet the community's substantial damage threshold. If damage is caused by other hazards, or a mix of hazards, the agricultural structure must meet elevation or dry floodproofing requirements when repaired or restored or wet floodproofing if it qualifies per this policy.
    b. The language of the local jurisdiction's land use provision must be reviewed and approved by FEMA to confirm consistency with the NFIP design and performance standards, and it must be incorporated into the local floodplain management regulations.

c. The repair or restoration must be to pre-damaged condition only. Substantial improvements require the agricultural structure to meet elevation or dry floodproofing requirements or wet floodproofing if it qualifies per this policy.
d. Repair and restoration to pre-damaged condition requires issuance of a floodplain development permit for each occurrence.
e. In accordance with Section 1315(a)(2)(C) of the NFIA, disaster assistance under any program administered by the Administrator or any other federal agency is not available for agricultural structures repaired or restored to pre-damaged condition.
f. In accordance with Section 1315(a)(2)(B) of the NFIA, FEMA may deny federal flood insurance coverage unless the agricultural structure is wet floodproofed, consistent with the design and performance standards of 44 C.F.R. § 60.3(c)(5).

2. **Agricultural Structures and Accessory Structures.** The community may allow certain agricultural and/or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement, via variance, under the following conditions:
   a. In accordance with the provisions of 44 C.F.R. § 60.6(a), the owner of an agricultural or accessory structure may request a variance from the appropriate local authority to allow certain agricultural or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement of the NFIP. Communities must have a mechanism to ensure compliance with this policy and should include within their floodplain management regulations the criteria for an agricultural or accessory structure to receive a variance to wet floodproof in lieu of elevation or dry floodproofing.
      i. The variance must be for an individual agricultural or accessory structure as defined in this policy.
      ii. Justification for the variance must be on a case-by-case basis in accordance with the criteria established in 44 C.F.R. § 60.6(a), and the variance application and community documentation must address the following:
         1. The agricultural or accessory structure must meet the definition of *structure, for floodplain management purposes,* provided in 44 C.F.R. § 59.1, where walled and roofed shall be interpreted as having at least two outside rigid walls and a fully secured roof.
         2. An accessory structure is small and represents a minimal investment.
         3. An agricultural structure has a low damage potential and is located in an A Zone (A, AE, A1-A30, AR, A99).
         4. A description of the exceptional hardship that the applicant would incur if a variance were not granted must be included.
         5. The agricultural or accessory structure must meet the definition of agricultural or accessory structure, including the exclusive use requirements provided in this policy.

6. The agricultural or accessory structure must be anchored to resist flotation, collapse, and lateral movement.
7. The portions of the agricultural or accessory structure located below the BFE must be constructed with flood-resistant materials.
8. Mechanical and utility equipment for the agricultural or accessory structure must be elevated or dry floodproofed to or above the BFE.
9. The agricultural or accessory structure must comply with the floodway encroachment provisions of the NFIP.
10. The agricultural or accessory structure must be wet floodproofed to protect the structure from hydrostatic pressure. The design must meet the NFIP design and performance standards for openings per 44 C.F.R. § 60.3(c)(5) and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).

iii. The variance must provide the minimum relief necessary.

iv. The variance must restrict use of the agricultural or accessory structure in accordance with the exclusive use requirement of the NFIP definition provided in this policy.

v. In accordance with FEMA regulation and guidance, owing to the increased risk to public safety, a variance for wet floodproofing in lieu of elevation or dry floodproofing is not recommended for:

1. An agricultural structure located in a V Zone (V, VE, V1-V-30). Wet floodproofing and breakaway walls below a compliant elevated structure is permissible without a variance.
2. An agricultural or accessory structure which, if flooded, would create a threat to public safety, health, and welfare. Such structures include but may not be limited to confinement operations; structures with liquefied natural gas terminals; and facilities producing and storing highly volatile, toxic, or water-reactive materials. Ideally, these structures should be located outside of the SFHA; however, when located within the SFHA, these structures must be elevated or dry floodproofed in accordance with NFIP design and performance standards.

b. In accordance with the provisions of 44 C.F.R. § 60.6(b), a community may request a community-wide exception from FEMA to allow certain agricultural or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement of the NFIP.

i. The community must submit a request, in writing, to its respective FEMA Regional Office, including:

1. The nature, extent of, and reasons for the exception
2. A description of the extraordinary circumstances and local conditions that cause a hardship or inequity for elevating or dry floodproofing agricultural or accessory structures

3. Sufficient supporting justification, which may include community-wide economic impacts; environmental, topographic, hydrologic, and hydraulic conditions and data; other scientific and technical data; and data demonstrating the impact on public safety and welfare and the environment
4. Sufficient supporting information regarding other planning considerations and factors that justify wet floodproofing as an appropriate alternative mitigation design, which may include flooding characteristics (frequency, duration, depth); flood warning time; safety and access; emergency operations plans; protection of contents and equipment; and any other conditions, requirements, or restrictions the community proposes to enforce for an agricultural and/or accessory structure to be eligible for the exception to wet floodproof
5. The proposed regulations language for allowing certain agricultural or accessory structures to be wet floodproofed, consistent with the minimum criteria outlined in Section C, Part 2(a) of this policy

ii. The FEMA Regional Office will complete an initial review and evaluation of the request and work with the community to ensure sufficient documentation and justification for the request has been received prior to submitting the request to FEMA Headquarters for final review and approval.

iii. FEMA will prepare a Special Environmental Clearance to determine whether the proposed community-wide exception will have a significant impact on the human environment. The decision to prepare an Environmental Impact Statement, or other environmental documentation, will be made in accordance with FEMA Directive 108-1 and FEMA Instruction 108-1-1. This will be part of FEMA's assessment of how applicable environmental and historic preservation laws, regulations, Executive Orders, and agency policy apply to proposed federal actions.

iv. After review and evaluation of the request, the FEMA Regional Office will notify the community whether the requested community-wide exception is approved.
    1. If the request is denied, the FEMA Regional Office will provide an explanation for the denial.
    2. If the request is approved, the FEMA Regional Office will provide technical assistance, as necessary, to ensure the regulations language is sufficient and consistent with the requirements of the approved community-wide exception.

3. **Accessory Structures Only.** The community may allow certain accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement, without a variance, under the following conditions:

a. Communities must have a mechanism to ensure compliance with this policy and should include within their FEMA-approved floodplain management regulations the criteria for an accessory structure to be wet floodproofed in lieu of elevation or dry floodproofing without a variance.
    i. The accessory structure must meet the definition of structure, for floodplain management purposes, provided in 44 C.F.R. § 59.1, where walled and roofed shall be interpreted as having two outside rigid walls and a fully secured roof.
    ii. The accessory structure should be small, as defined by the community and approved by FEMA, and represent a minimal investment. Accessory structures of any size may be considered for a variance; however, FEMA considers accessory structures that meet the following criteria to be small and therefore not necessarily in need of a variance, if the community chooses to allow it:
        1. Located in an A Zone (A, AE, A1-A30, AR, A99) and less than or equal to the size of a one-story, two-car garage.
        2. Located in a V Zone (V, VE, V1-V-30) and less than or equal to 100 square feet.
    iii. The accessory structure must be anchored to resist flotation, collapse, and lateral movement.
    iv. The portions of the accessory structure located below the BFE must be constructed with flood-resistant materials.
    v. Mechanical and utility equipment for the accessory structure must be elevated or dry floodproofed to or above the BFE.
    vi. The accessory structure must comply with the floodway encroachment provisions of the NFIP.
    vii. The accessory structure must be wet floodproofed to protect the structure from hydrostatic pressure. The design must meet the NFIP design and performance standards for openings per 44 C.F.R. § 60.3(c)(5) and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).

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02/12/20

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ADDITIONAL INFORMATION

REVIEW CYCLE

FEMA Policy #104-008-03: Floodplain Management Requirements for Agricultural Structures and Accessory Structures will be reviewed, reissued, revised, or rescinded within 4 years of the issue date.

AUTHORITIES

A. Homeland Security Act of 2002, Pub. L. No. 107-296
B. Executive Order 11988: Floodplain Management, 42 FR 26951, May 24, 1977
C. National Flood Insurance Act of 1968, as amended, 42 U.S.C. § 4001 *et seq.*

REFERENCES

A. 42 U.S.C. § 4022 and § 4102 State and Local Land Use Controls; Criteria for Land Management Use
B. 44 C.F.R. § 59.1 National Flood Insurance Program Regulations
C. 44 C.F.R. § 60.1 Purpose of Subpart A – Requirements for Flood Plain Management Regulations
D. 44 C.F.R. § 60.3 Flood Plain Management Criteria for Flood-Prone Areas
E. 44 C.F.R. § 60.6 Variances and Exceptions
F. American Society of Civil Engineers (ASCE) 24-14, Flood Resistant Design and Construction, January 2014
G. International Code Council, International Building Code, August 2017
H. FEMA 480, National Flood Insurance Program Floodplain Management Requirements, February 2005
I. FEMA Flood Insurance Manual, National Flood Insurance Program, Effective April 2019
J. FEMA P-936, Floodproofing Non-Residential Buildings, July 2013
K. [1]NFIP Technical Bulletin 1, Openings in Foundation Walls and Walls of Enclosures, August 2008
L. [1]NFIP Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, August 2008
M. [1]NFIP Technical Bulletin 3, Non-Residential Floodproofing – Requirements and Certification, April 1993
N. [1]NFIP Technical Bulletin 5, Free-of-Obstruction Requirements, August 2008
O. [1]NFIP Technical Bulletin 7, Wet Floodproofing Requirements, December 1993
P. FEMA P-993, Floodplain Management Bulletin – Variances and the National Flood Insurance Program, July 2014
Q. FEMA Directive 108-1, Environmental Planning and Historic Preservation Responsibilities and Program Requirements, August 2016
R. FEMA Instruction 108-1-1, Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements, August 2016

[1] Reference items K - O are available at https://www.fema.gov/media-library/resources-documents/collections/4

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DEFINITIONS

A Zone – designated in FEMA's Flood Insurance Studies and Flood Insurance Rate Maps as zones labeled A, AE, A1-30, AH, AO, and AR/A99

Accessory Structure – a structure, as defined in 44 C.F.R. § 59.1, which is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure; specifically excludes structures used for human habitation

Agricultural Structure – a structure, as defined in 44 C.F.R. § 59.1, which is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock; specifically excludes any structures used for human habitation

Base Flood Elevation (BFE) – the height of the flood having a 1 percent chance of being equaled or exceeded in any given year

Community – any State or area or political subdivision thereof (such as county, city, township, village), or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction

Development – any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials

Dry Floodproofing – a combination of measures that results in a structure, including the attendant utilities and equipment, being watertight with all elements substantially impermeable to the entrance of floodwater and with structural components having the capacity to resist flood loads

Exception – a waiver from the NFIP regulations for floodplain management requirements found in 44 C.F.R. § 60, granted by FEMA and directed to a community, which relieves the community from the requirements, regulation, order, or other determination made or issued pursuant to the NFIA, as amended

Floodplain/Floodprone Area – any land area susceptible to being inundated by water from any source

Floodplain Management – the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans; flood control works; and such State, Tribal, territorial, or local regulations, ordinances, and building codes that provide standards for the purpose of flood damage prevention and reduction

Hardship – the inability to comply with an NFIP floodplain management regulation and make reasonable use of a property because of unusual physical and topographical conditions that are unique to the property, are not caused by the applicant, and pertain to the land and not any structures, its inhabitants, or the personal circumstances of the property owner

Local Floodplain Administrator – the local official or other person designated by a community as responsible for administering NFIP floodplain management regulations

Lowest Floor – the lowest floor of the lowest enclosed area of a structure, including a basement. Any NFIP-compliant unfinished or flood-resistant enclosure used solely for parking of vehicles, building access, or storage (in an area other than a basement) is not considered a structure's lowest floor.

National Flood Insurance Act of 1968 (NFIA) – created the Federal Insurance Administration and made federal flood insurance available for the first time

National Flood Insurance Program (NFIP) – a program enacted by Congress intended to reduce the impact of flooding on private and public structures by making federal flood insurance available within communities that adopt and enforce NFIP floodplain management regulations

New Construction – (for floodplain management purposes) structures for which the start of construction commences on or after the effective date of an NFIP floodplain management regulation adopted by a community and includes all subsequent improvements to the structures

Opening – open area or space within a wall that meets certain performance characteristics related to allowing the automatic entry and exit of floodwaters

Special Flood Hazard Area (SFHA) – the land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. The SFHA is inclusive of A Zones and V Zones.

State/Tribe/Territory Coordinator – the person, office, or agency of the State government designated by the Governor of the State**/Tribe/territory**, or by State**/Tribe/territory** statute, that assists in the implementation of the NFIP in that State/Tribe/territory

Structure – (for floodplain management purposes) a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. Walled and roofed shall be interpreted as two outside rigid walls and a fully secured roof

Substantial Damage – damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred

Substantial Improvement – any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure (or a smaller percentage if established by the community) before the start of construction of the improvement

Variance – a grant of relief by a community from the terms of an NFIP requirement for floodplain management regulations

V Zone – area of the SFHA that is inundated by tidal floods (coastal high hazard area) as designated in FEMA's Flood Insurance Studies and Flood Insurance Rate Maps; zones labeled V, VE, V1-30, and VO

Wet Floodproofing – use of flood damage-resistant materials and construction techniques to minimize flood damage to a structure by intentionally allowing floodwaters to enter and exit automatically (without human intervention)

MONITORING AND EVALUATION

The efficacy of this policy shall be monitored as a joint effort of local floodplain administrators, NFIP State/Tribe/territory Coordinators, and FEMA through data and documentation available from regular inspections of structures, monitoring and recording of building performance, Community Assistance Visits and Contacts conducted by FEMA or State/Tribe/territory NFIP personnel, permit and variance records, federal flood insurance policy data, and the Community Information System (CIS).

FEMA Headquarters will utilize the data and documentation to evaluate of the effectiveness of this policy and inform policy review, reissuance, revision, or rescission.

QUESTIONS

Questions regarding implementation or clarification of this policy should be directed to a community's FEMA Regional Office.

Regional offices seeking guidance, outreach, training, or clarification on this policy may direct questions to the FEMA Floodplain Management Division:
FEMA-Floodplain-Management-Division@fema.dhs.gov.