

volume of coatings compounded in 1987, adjusted to dry gallons and using the allowable amounts under the bubble. Morgan Adhesives states that this comparison clearly projects reductions greater than 20 percent below the lower of RACT or actual for the baseline period on a tons-per-year basis.

USEPA Response. The Morgan Adhesives's bubble is not consistent with the 1982 policy for the previously stated reasons (the use of a volume applied basis in the calculation of allowable emissions). Furthermore, consistency with the 1982 policy is not relevant, because bubbles must now comply with the December 4, 1986, final ETPS.

A time period different from 1978 and 1979, may be used for certain baseline purposes (establishing CU and H) if another time period is deemed more representative of typical operations. As stated previously, USEPA will consider any revised proposals with modified baselines.

Morgan Adhesives is incorrect in stating that to determine 20 percent reduction all that is required is to multiply the RACT limit by 0.80. The 20 percent reduction is from the lowest-of-actual-SIP-allowable or RACT-allowable emissions baselines. The baseline emissions are equal to the product of its emissions rate, average hourly capacity utilization, and the number of hours of operation.

Morgan Adhesives goes on, in its comment, to show how its current emissions compare with "RACT allowable in 1978-79." This comment does not appear to be relevant because it does not relate to the formally submitted bubble proposal.

Comment 6. The Morgan bubble is not a relaxation. USEPA erroneously stated in the November 2, 1987, notice that the Morgan Adhesives's bubble is a relaxation and, therefore, cannot be approved. It is not a relaxation. USEPA erroneously reached its conclusion by comparing the volume-based VOC limit with a solids basis calculation. Not only is this an improper comparison of apples and oranges; but it also reduces USEPA's point to an objection that the bubble is not calculated on a solids basis. This point was dealt with above in section 3. Finally, if USEPA allows for updating the bubble, as contemplated by Morgan Adhesives's two modification requests, the emission limits will be even tighter.

USEPA Response. As stated previously, the formula in the Morgan Adhesives's bubble is not on a solids basis and is, therefore, a relaxation. This issue has been previously addressed in the discussion of Comment 3.

Morgan Adhesives summarized its comments as follows. Morgan Adhesives has in place a bubble that is more stringent than the one USEPA proposed on November 2, 1987, to disapprove. It is a bubble that was intended to meet USEPA's changing criteria for approval during the years that this bubble application has been pending before USEPA. It results in emissions that are much lower than the strictest criteria for approval of bubbles that USEPA has ever published. Moreover, Morgan Adhesives is meeting the limits of this new bubble, rather than those of the bubble originally submitted to USEPA in 1983 for approval. USEPA, on the other hand, proposed to disapprove Morgan Adhesives's bubble as though it were just as originally submitted, ignoring the intervening history. USEPA's criteria for disapproval would treat the bubble as if it were not a pending bubble, and would apply new criteria published years after the bubble was first submitted to USEPA.

Morgan Adhesives believes that, if correctly analyzed, this bubble is approvable under the properly applicable policy, the April 7, 1982, policy, and the USEPA should approve it. In the alternative, USEPA should refrain from acting on its proposed disapproval and give OEPA and Morgan Adhesives the opportunity to submit to USEPA Morgan Adhesives's two modification requests of May 1984 and May 1985; postponing final action on the bubble until action can be taken on the bubble that is actually being met by Morgan Adhesives. Any other action by USEPA would be unreasonable and unlawful, and would penalize Morgan Adhesives unfairly despite its responsible efforts to comply.

USEPA Response. USEPA can only act on the bubble application which is before it; that application does not comply with USEPA's December 4, 1986, bubble policy. This bubble is not a "pending" bubble because the formula which establishes the bubble is not on a solids basis.

There is no basis for waiving the requirement that this bubble comply with the final ETPS, as opposed to the April 7, 1982, proposed policy. USEPA can refrain from acting on this bubble only if it is withdrawn by Ohio, and it has not been. Furthermore, as previously stated, Ohio has the opportunity to submit Morgan Adhesives's modified requests at any time.

C. The Natural Resources Defense Council Made the Following Comment

We are writing in support of USEPA's proposed disapproval of the Ohio State Implementation Plan revision to relax

the emissions limitation for volatile organic compound releases from the Morgan Adhesives Company. Relaxation of the emission limitation through use of a "bubble" will exacerbate air quality problems in Summit County, which is still out of attainment with the basic health standards for ozone.

USEPA Response. It should be noted that USEPA would approve any bubbles which meet the final ETPS policy.

Conclusion and Recommendation

The only change in USEPA's position, based upon these comments, is that the deficiencies specifically relating to the vinyl casting line are no longer relevant because this line has been dismantled. More specifically, a RACT-allowable emissions baseline for the vinyl casting line does not need to be established.

USEPA is disapproving this SIP revision for Morgan Adhesives because it does not represent the application of RACT nor does it comply with USEPA's Emission Trading Policy.

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 16, 1989. This action may not be challenged later in proceedings to enforce its requirements. (See 307(b)(2).)

Under Executive Order 12291, today's action is not "Major." It has not been submitted to the Office of Management and Budget (OMB) for review.

List of Subjects in 40 CFR Part 52

Environmental Protection, Air pollution control, Ozone, Carbon monoxide, Hydrocarbon, Intergovernmental offices.

Dated: August 2, 1989.

Basil G. Constantelos,
Acting Regional Administrator.
[FR Doc. 89-18995 Filed 8-14-89; 8:45 am]
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40 CFR Parts 52 and 81

[FRL-3627-7]

Approval and Promulgation of Implementation Plans; and Designation of Areas for Air Quality Purposes; State of Iowa

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's rulemaking takes final action approving the Iowa particulate matter (PM₁₀) State Implementation Plan (SIP) revision and

redesignating areas of Iowa "unclassifiable" with respect to particulate matter. Today's rulemaking is in response to requests by the state. The state's SIP submittal is in response to EPA's promulgation of new PM₁₀ standards on July 1, 1987 (52 FR 24634). As a result of today's action, the state of Iowa will have an approved PM₁₀ SIP, and all areas of the state will be unclassifiable or attainment with respect to the air quality standard for particulate matter.

EFFECTIVE DATE: This rulemaking will become effective October 16, 1989 unless someone notifies EPA that they wish to make adverse or critical comments by September 14, 1989. If the effective date is delayed, timely notice will be published in the Federal Register.

ADDRESSES: Documents relevant to this action are available for public inspection during normal business hours at the Environmental Protection Agency, Region VII, Air Branch, 726 Minnesota Avenue, Kansas City, Kansas 66101; Public Information Reference Unit, Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; and the Iowa Department of Natural Resources, 900 East Grand, Des Moines, Iowa 50319.

FOR FURTHER INFORMATION CONTACT: Robert J. Chanslor at (913) 236-2893 (FTS 757-2893).

SUPPLEMENTARY INFORMATION:

Background

On July 1, 1987 (52 FR 24634), EPA promulgated a new national ambient air quality standard (NAAQS) for particulate matter. The new standard only applies to particles with a nominal aerometric mean diameter of 10 micrometers or less (PM₁₀). This new standard replaces total suspended particulates (TSP) as an ambient air quality standard.

In order to regulate PM₁₀, states must make certain changes in their rules and regulations and in the SIPs. The changes in the rules and the SIPs must ensure that the PM₁₀ NAAQS are attained and maintained; that new and modified sources which emit PM₁₀ are reviewed; that PM₁₀ is one of the pollutants to trigger alert, warning, and emergency actions; and that the states' monitoring network be designed to include PM₁₀ monitors. These changes must be made regardless of the existing levels of PM₁₀ in any area of the state.

Where preliminary monitoring data indicate that it is likely PM₁₀ standards are being exceeded in an area, a control strategy is required to show how PM₁₀ emissions will be reduced to provide for

attainment and maintenance of the PM₁₀ NAAQS. This is called a group I area.

If data show that the PM₁₀ standards could possibly be met in an area, but there is some uncertainty, the states are required to commit to perform additional PM₁₀ monitoring in such an area and to prepare a control strategy if the data show with certainty that the standards are being exceeded. This is called a group II area. The commitments must be submitted in the form of a SIP revision and are termed a "committal" SIP.

Where available particulate matter data indicate the PM₁₀ air quality is better than the standards, EPA presumes that the existing SIP is adequate to demonstrate attainment and maintenance of the PM₁₀ standards. This is called a group III area. Preconstruction review and emergency episode provisions are the only PM₁₀ rule revisions required for group III areas. The regulations require submission of PM₁₀ SIPs nine months after the federal regulations became effective on July 31, 1987. Because of the burdensome administrative requirements for adoption of rules in some states, they were given some flexibility in the scheduling of their SIP submissions.

PM₁₀ Attainment Status in Iowa

Existing TSP and PM₁₀ air quality data show there are no group I areas in Iowa. There are three group II areas in the state. These are Cedar Rapids, Des Moines, and Mason City. Based on available data and in accordance with the Clean Air Act and EPA regulations, Iowa must meet the following requirements so that EPA may approve its PM₁₀ SIP: (1) Adopt acceptable revisions to its preconstruction review rules; (2) submit a committal SIP for the group II areas of Cedar Rapids, Des Moines, and Mason City; (3) revise the emergency episode rules to incorporate PM₁₀; and (4) ensure that the monitoring plan provides for sampling PM₁₀.

The Iowa PM₁₀ SIP Submittal

The Iowa Department of Natural Resources submitted its PM₁₀ SIP revision on October 28, 1988. The submittal contains: (1) The committal SIP for the three group II areas; (2) documentation of proper notice and public hearings; (3) revised new source review procedures; and (4) revisions to the emergency episode rules adding PM₁₀ action levels.

EPA reviewed the Iowa submittal to determine if it meets the requirements of the Clean Air Act, EPA regulations, and applicable policies. The regulations most pertinent to this rulemaking are

found in the July 1, 1987, Federal Register (52 FR 24672). EPA's PM₁₀ SIP Development Guideline (EPA-450/2-86-001) dated June 1986 and a supplement to that guideline dated June 1988 amplify the regulations promulgated July 1, 1987.

Review of the Iowa PM₁₀ Submittal

Administrative Requirements

The state's notification and public hearing on its PM₁₀ SIP revision satisfy the requirements of 40 CFR 51.102.

The local air pollution control agencies received notice and attended the public hearings. Development of the Iowa PM₁₀ SIP required no new significant intergovernmental planning activities and none are required for SIP implementation. The SIP submittal contains no new information concerning 40 CFR part 51, Subpart M, Intergovernmental Consultation.

The state resources necessary to implement the PM₁₀ SIP for Iowa are included in the annual State/EPA Agreement (SEA) signed by the Director of the Iowa Department of Natural Resources and the Regional Administrator of EPA Region VII. There are no group I areas in Iowa. Initial implementation of the PM₁₀ SIP requires no new control strategy for particulate matter. The required control strategy includes continued enforcement of existing particulate matter emission regulations; review of new sources for PM₁₀ and TSP emissions; and operation of an air monitoring network composed of TSP and PM₁₀ samplers. The state also monitors PM₁₀ in the group II areas as required and if violations of the standard are documented in any of those areas, a control strategy will be developed as described in the state's committal SIP. These are activities included in the SEA.

Legal Authority

Iowa rule 21.1(5) requires that all emissions data are made available for public review. Rule 21.1(6) requires source owners and operators to maintain records of emissions and submit such data to the state upon request. These regulations are currently a part of the approved Iowa SIP. Chapter 25 contains provisions requiring continuous emissions monitoring and requires submittal of such emissions data.

Chapter 27 of the Iowa regulations provides for local air pollution control programs. These local agencies operate under authority granted by the state through a certificate of authority. The local agencies must have ordinances which are consistent with state

regulations. However, the state retains concurrent authority for issuing new source permits and enforcement activities. The particulate matter control strategy presently part of the approved Iowa SIP is based on controlling emissions in accordance with state rules. This strategy does not depend upon additional particulate matter reductions provided by local agency rules.

PM₁₀ Air Quality Standards

Iowa adopted all of the 40 CFR part 50 regulations as amended through July 1, 1987, by reference. Thus, the state adopted the NAAQS for PM₁₀ including the requirements of appendix J and appendix K to part 50.

Definitions

The Iowa rules contain a definition of particulate matter which is consistent with EPA's definition at 40 CFR 51.100(cc). The state adopted definitions consistent with EPA's definitions for PM₁₀ and TSP at 40 CFR 51.100 (qq) and (ss), respectively.

The state did not adopt definitions of particulate matter emissions or PM₁₀ emissions. However, the Iowa Environmental Quality Act—Division II—Air Quality, Section 455B.131 contains definitions which include "emission." "Emission" means a release of one or more air contaminants into the outside atmosphere. It is clear that combining Iowa's definition of "PM₁₀" and "particulate matter" with "emissions" results in definitions comparable to EPA's definitions at 40 CFR 51.100 (pp) and (vv). EPA believes Iowa's definitions in its PM₁₀ submittal are acceptable.

NSR Requirements

Iowa's SIP is currently approved as satisfying the requirements of 40 CFR part 51 for review of new and modified sources. This includes the requirements of 40 CFR 51.165, Permit requirements, and 40 CFR 51.166, Prevention of significant deterioration of air quality (PSD).

Iowa's PSD requirements are in rule 22.4. This rule adopts by reference 40 CFR 52.21 as amended July 1, 1987, except for deletions and revisions recommended by EPA for SIP-approved state PSD programs. Iowa's PSD rules were approved on June 26, 1987 (52 FR 23981). The state adopted subrule 22.4(4) to satisfy the requirements of 40 CFR 51.165(b). Section 165(b) enables states under their NSR procedures to establish emission offset programs for major new or modified sources proposing to locate in an attainment or unclassified area for any pollutant whose emissions would

cause or contribute to air pollution exceeding the NAAQS in any area. This is acceptable.

Emergency Episode Plans

Iowa revised its Chapter 26—Prevention of Air Pollution Emergency Episodes, for consistency with 40 CFR part 51, appendix L. There are no group I areas in Iowa, so new contingency plans for emergency episodes have not been developed. Chapter 26 contains provisions which direct air pollutant sources to take certain actions at various episode levels. These actions are consistent with the curtailment Tables I, II, and III, in 40 CFR part 51, appendix L. Iowa's PM₁₀ emergency episode plan is acceptable.

PM₁₀ Monitoring

Iowa's monitoring SIP was originally approved on April 12, 1982 (47 FR 15583). The monitoring SIP is termed a strategy and is generic for all pollutants without listing specific pollutants by name. The state's strategy commits the state to meet all requirements of 40 CFR part 58 and does not reference a specific date. EPA believes the monitoring SIP is sufficiently broad to include PM₁₀ without a revision.

EPA Action: EPA approves the Iowa revised rules and regulations pertaining to PM₁₀ adopted by the Iowa Environmental Protection Commission and became effective on December 21, 1988. The amendments are found in Chapter 20, "Scope of Title—Definitions—Rules of Practice;" Chapter 22, "Controlling Pollution;" Chapter 26, "Prevention of Air Pollution Emergency Episodes;" and Chapter 28, "Ambient Air Quality Standards," Iowa Administrative Code.

Area Redesignations

The final rulemaking promulgating EPA's PM₁₀ SIP requirements published on July 7, 1987 (52 FR 24682) discussed an Area Redesignation Policy with respect to TSP. The EPA encouraged states to submit requests to redesignate TSP nonattainment areas to unclassifiable for TSP at the time the PM₁₀ control strategy is submitted. The rulemaking stated that when EPA approves the control strategy as sufficient to attain and maintain the PM₁₀ NAAQS, it will also approve the redesignation. An area designation for TSP must be retained until EPA promulgates PM₁₀ increments, because Section 163 PSD increments depend upon the existence of Section 107 designations. Section 107 does not provide for PM₁₀ area designations. (See 52 FR 24682.)

The state of Iowa requested TSP redesignations to unclassifiable in a letter dated October 20, 1988. The identified TSP nonattainment areas are as follows:

Portions of Waterloo and Black Hawk County,
Portions of Mason City and Cerro Gordo County,
Portions of Clinton,
Portions of Cedar Rapids,
Portions of Marshalltown,
Portions of Muscatine,
Portions of Des Moines and Polk County,
Portions of Council Bluffs and Carter Lake,
Portions of Davenport, Buffalo, Bettendorf, and Riverdale,
Portions of Fort Dodge, and
Portions of Sioux City.

Action: EPA approves Iowa's request to redesignate TSP nonattainment areas from nonattainment to unclassifiable.

EPA is publishing this action without prior proposal because the Agency views this as a noncontroversial amendment and anticipates no adverse comments.

This action will be effective October 16, 1989. However, if notice is received within 30 days that someone wishes to make adverse or critical comments, this action will be withdrawn and two subsequent notices will be published prior to the effective date. One notice will withdraw final action and another will begin a new rulemaking by announcing a proposal of action and establishing a comment period. If no such comments are received, the public is advised that this action will be effective October 16, 1989.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any SIP. Each request for revision to the SIP shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

This action has been classified as a Table 3 action by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214–2225). On January 6, 1989, the Office of Management and Budget waived Table 2 and 3 SIP revisions (54 FR 2222) from the requirements of section 3 of Executive Order 12291 for a period of two years.

Under 5 U.S.C. 605(b), I certify that this rulemaking will not have a significant impact on a substantial number of small entities. (See 46 FR 8709.)

Under section 307(b)(1) of the Act, as amended, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 16, 1989. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects

40 CFR Part 52

Air pollution control, Incorporation by reference, and Particulate matter.

40 CFR Part 81

Air pollution control, National parks, Wilderness areas.

Note: Incorporation by reference of the State Implementation Plan for the state of Iowa was approved by the director of the Federal Register on July 1, 1982.

Dated: June 20, 1989.
William Rice,
Acting Regional Administrator.

40 CFR part 52 is amended as follows:

PART 52—[AMENDED]

Subpart Q—Iowa

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7642.

2. Section 52.920 is amended by adding paragraph (c)(51) to read as follows:

§ 52.920 Identification of plan.

(c) * * *
(51) Revised Iowa regulations pertaining to PM₁₀ were submitted by

the state on October 28, 1988. These rules became effective on December 21, 1988.

(i) Incorporation by reference

(A) Amended Iowa Administrative Code pertaining to the prevention, abatement, and control of air pollution: Chapter 20, "Scope of Title—Definitions—Forms—Rules of Practice;" Chapter 22, "Controlling Pollution;" Chapter 26, "Prevention of Air Pollution Emergency Episodes;" and Chapter 28, "Ambient Air Quality Standards," effective December 21, 1988.

(ii) Additional information

(A) None.

3. The table in § 52.827, Attainment dates for national standards, is revised to read as follows:

§ 52.827 Attainment dates for national standards.

* * * * *

Air quality control region	Pollutant						
	Particulate matter		Sulfur oxides		Nitrogen dioxide	Carbon monoxide	Ozone
	Primary	Secondary	Primary	Secondary			
Metropolitan Omaha, Council Bluffs Interstate:							
a. Council Bluffs.....	a.....	e.....	b.....	a.....	c.....	c.....	c.....
b. Remainder of AQCR.....	a.....	a.....	b.....	a.....	c.....	c.....	c.....
Metropolitan Sioux Falls Interstate.....	b.....	a.....	c.....	c.....	c.....	c.....	c.....
Metropolitan Sioux City Interstate:							
a. Sioux City.....	b.....	e.....	c.....	c.....	c.....	c.....	c.....
b. Remainder of AQCR.....	b.....	a.....	c.....	c.....	c.....	c.....	c.....
Metropolitan Dubuque Interstate:							
a. Dubuque.....	a.....	a.....	d.....	d.....	c.....	c.....	c.....
b. Remainder of AQCR.....	a.....	a.....	c.....	c.....	c.....	c.....	c.....
Metropolitan Quad Cities Interstate:							
a. Davenport.....	d.....	f.....	c.....	c.....	c.....	c.....	c.....
b. Clinton.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
c. Muscatine.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
d. Remainder of AQCR.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
Burlington-Keokuk Interstate:							
a. Keokuk.....	a.....	e.....	a.....	a.....	c.....	c.....	c.....
b. Remainder of AQCR.....	a.....	a.....	a.....	a.....	c.....	c.....	c.....
Northwest Iowa Intrastate.....	c.....	c.....	c.....	c.....	c.....	c.....	c.....
North Central Iowa Intrastate:							
a. Fort Dodge.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
b. Mason City.....	d.....	f.....	c.....	c.....	c.....	c.....	c.....
c. Remainder of AQCR.....	a.....	a.....	c.....	c.....	c.....	c.....	c.....
Northeast Iowa Intrastate:							
a. Cedar Rapids.....	d.....	f.....	c.....	c.....	c.....	c.....	c.....
b. Waterloo.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
c. Remainder of AQCR.....	a.....	a.....	c.....	c.....	c.....	c.....	c.....
Southwest Iowa Intrastate.....	c.....	c.....	c.....	c.....	c.....	c.....	c.....
South Central Iowa Intrastate:							
a. Des Moines.....	d.....	f.....	c.....	c.....	c.....	c.....	c.....
b. Marshalltown.....	a.....	e.....	c.....	c.....	c.....	c.....	c.....
c. Remainder of AQCR.....	a.....	a.....	c.....	c.....	c.....	c.....	c.....
Southeast Iowa Intrastate.....	c.....	c.....	c.....	c.....	c.....	c.....	c.....

NOTE: Dates of footnotes which are italicized are prescribed by the Administrator because the plan did not provide a specific date or the date provided was not acceptable.

a. July 1975.

b. Air quality levels presently below primary standards.

c. Air quality levels presently below secondary standards.

d. December 31, 1982.

e. January 1, 1985.

f. January 1, 1995.

g. (Three years from effective date of rulemaking.)

4. A new § 52.823 is added as follows:

§ 52.823 PM₁₀ State Implementation Plan Development in Group II Areas

The Iowa Department of Natural Resources committed to comply with the

PM₁₀ regulations as set forth in 40 CFR Part 51. In a letter to Morris Kay, EPA, dated October 28, 1988, Mr. Larry J. Wilson, Director, Iowa Department of Natural Resources, stated:

Three groups within the State of Iowa have been classified as Group II areas for fine particulate (PM-10) State Implementation Plan (SIP) development purposes. This includes portions of the cities of Des Moines, Mason City, and Cedar Rapids. The specific

boundaries of these areas were identified in a letter of October 13, 1987, from Peter R. Hamlin to Carl Walter. The remainder of the State was classified as Group III.

In accordance with the SIP development procedures identified in the preamble of the PM-10 regulations for Implementing Revised Particulate Matter Standards, promulgated July 1, 1987, the State of Iowa commits to perform the following activities in these three Group II areas of the state:

(a) Gather ambient PM-10 data, to an extent consistent with minimum EPA requirements (note the network description contained in a letter of January 26, 1988, from Peter R. Hamlin to John Helvig).

(b) Analyze and verify the ambient PM-10 data and report exceedances of the 24-hour PM-10 National Ambient Air Quality Standards (NAAQS) to the Regional Office within 60 days of each exceedance.

(c) Immediately notify the Regional Office:

(1) Upon the availability of an appropriate number of verifiable 24-hour NAAQS exceedances to indicate a violation (see Section 2.0 of the PM-10 SIP development guideline) or

(2) when an annual arithmetic mean (AAM) above the annual PM-10 NAAQS becomes available.

(d) Within thirty (30) days of any notification of the Regional Office pursuant to

(c) above (or upon collection of thirty-six (36) months of PM-10 ambient air quality data acceptable to EPA, whichever comes first) determine whether the measures in the existing SIP will assure timely attainment and maintenance of the primary PM-10 NAAQS and immediately notify the Regional Office of the results of this determination.

(e) Within six (6) months of any notification pursuant to (d) above, adopt and submit to EPA a PM-10 control strategy that assures attainment as expeditiously as practicable but not later than three (3) years from approval of the Committal SIP.

Because of the uncertainty about when the determination can be made pursuant to (d) above, it is difficult to determine if that control strategy could provide for the attainment of the PM-10 NAAQS within three years from the date EPA approves this Committal SIP. Therefore, I reserve the right to request a two-year extension of the attainment date as provided in Section 110(e) of the Clean Air Act, if and when the State of Iowa submits a SIP revision for any of these areas of the state.

The State of Iowa also commits to develop a PM-10 emission inventory for the areas submitted as part of any PM-10 SIP pursuant to items (c), (d), and (e) above. If the PM-10 NAAQS are not violated, the State of Iowa will proceed with this inventory for the three

Group II areas in accordance with the following schedule:

October 1, 1988—Request special assistance funds from EPA to perform the inventory.

October 1, 1989—Initiate inventory.

August 1, 1990—Complete inventory.

October 31, 1990*—Submit inventory as part of a determination of adequacy that the current SIP will attain and maintain the PM-10 NAAQS.

40 CFR part 81, subpart C, is amended as follows:

PART 81—[AMENDED]

Subpart C—Iowa

1. The authority section for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401-7642.

2. Section 81.316, Iowa, is amended by revising the attainment status designation table for TSP to read as follows:

* Presuming that sufficient ambient data acceptable to EPA are collected by July 31, 1990, and available by September 30, 1990.

§ 81.316 Iowa.

IOWA TSP

Designated Area	Does not meet primary standards	Does not meet secondary standards	Cannot be classified	Better than national standards
Central portion of Waterloo.....			x	
Cedar Falls Township.....			x	
East Waterloo Township.....			x	
Remainder of Black Hawk County.....				x
Mason City—A portion of Cerro Gordo County contained entirely within sections 27, 28, 29, 32, 33, 34, and 35 of T97N R20W and sections 2, 3, 4, and 5 of T96N R20W.....			x	
Mason City—two separate portions of Cerro Gordo County contained entirely within sections 13, 24, and 25 of T97N R21W; sections 18, 19, 20, 21, 30, 31, and 35 of T97N R20W; and sections 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 15, 16, and 17 of T96N R20W.....			x	
Falls Township.....			x	
Lake Township.....			x	
Lincoln Township.....			x	
Remainder of Cerro Gordo County.....				x
An area around downtown Clinton.....			x	
Comanche Township.....			x	
Remainder of Clinton County.....				x
Burlington Township.....			x	
Remainder of Des Moines County.....				x
Iowa City Township.....			x	
Remainder of Johnson County.....				x
An area in and near Keokuk.....			x	
Jackson Township.....			x	
Jefferson Township.....			x	
Madison Township.....			x	
Remainder of Lee County.....				x
Cedar Rapids—a portion of Linn County contained entirely within T 82 N., R 7 W.; and T 83 N., R 7 W.....			x	
Bertram Township.....			x	
Clinton Township.....			x	
College Township.....			x	
Fairfax Township.....			x	
Marion Township.....			x	
Monroe Township.....			x	
Putnam Township.....			x	
Remainder of Linn County.....				x

IOWA TSP—Continued

Designated Area	Does not meet primary standards	Does not meet secondary standards	Cannot be classified	Better than national standards
The central portion of Marshalltown			x	
Remainder of Marshall County				x
The central and southern portions of Muscatine			x	
Fruitland Township			x	
Sweetland Township			x	
Montpelier Township			x	
Remainder of Muscatine County				x
An area of central Des Moines east of U.S. Highway 65 & 69 (E. 14th Street)			x	
Portions of Polk County contained entirely within T 78 N. R 23 W.; T 78 N. R 24 W.; T 78 N. R 25 W.; T 80 R 24 W.; T 79 N. R 23 W.; T 79 N. R 24 W.; and T 79 R 25 W.				
Clay Township			x	
Douglas Township			x	
Jefferson Township			x	
Remainder of Polk County				x
The western portion of Council Bluffs and Carter Lake			x	
Lake Township			x	
Lewis Township			x	
Remainder of Pottawatomie County				x
Portions of Buffalo, Davenport, Bettendorf and Riverdale			x	
Remainder of Scott County				x
Center Township			x	
Remainder of Wapello County				x
The central portion Ft. Dodge			x	
Otho Township			x	
Remainder of Webster County				x
The central and southern portions of Sioux City			x	
Liberty Township			x	
Woodbury Township			x	
Remainder of Woodbury County				x
Remainder of State				x

[FR Doc. 89-18996 Filed 8-14-89; 8:45 am]

BILLING CODE 5560-50-M

FEDERAL EMERGENCY MANAGEMENT AGENCY

44 CFR Parts 59, 60, and 65

RIN 3067-AB32

National Flood Insurance Program

AGENCY: Federal Emergency Management Agency (FEMA).

ACTION: Final rule.

SUMMARY: This final rule revises the National Flood Insurance Program (NFIP) definitions of "substantial improvement", "new construction", and "development"; revises regulations dealing with variances, enclosed areas below the lowest floor, and wind loading values in coastal high hazard areas; and creates definitions for "alluvial fan flooding", "apex" (as it pertains to alluvial fans), "historic structure", and "substantial damage". The final rule also clarifies NFIP regulations pertaining to procedures for map revisions and amendments and establishes standards and procedures for the types of supporting data needed when map changes are requested involving Special Flood Hazard Areas

(SFHAs) where alluvial fan flooding occurs.

EFFECTIVE DATE: October 1, 1989.

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SUPPLEMENTARY INFORMATION: On March 7, 1989, FEMA published for comment in the Federal Register (54 FR 9523) a proposed rule containing revisions to the NFIP. These revisions were the result of a continuing reappraisal of the NFIP from the standpoint of achieving greater administrative and fiscal effectiveness and encouraging sound flood plain management so that reductions in the loss of life and property and in disaster expenditures could be realized.

In response to the proposed rule, 38 comments were received. Of these comments, eight dealt with flood plain management issues, 30 with flood hazard identification issues.

Flood Plain Management Provisions

The revisions to NFIP flood plain management criteria are intended to clarify or further explain provisions in those criteria or to liberalize certain requirements. Since this is the case, communities participating in the NFIP

are not required to amend their flood plain management regulations to incorporate the revised language. However, in communities where administration of provisions in the past has been inconsistent or contrary to any of the revisions, those communities are encouraged to amend their regulations accordingly.

Of the eight responses received addressing flood plain management issues, four were from State governments, three from national associations, and one from local government. Most of the comments were in support of the intent of the flood plain management rule changes and agreed with them in principle. These respondents did, however, offer recommendations to improve or further clarify the language or make the proposed requirements more restrictive. Two of the respondents were in opposition to one or more of the proposed changes.

Analysis of the comments resulted in minor changes to some provisions and the inclusion of additional language in one definition to bring about consistency with language proposed for another provision.

Within the eight responses, comments were also made about flood plain management provisions not specifically addressed in the proposed rule. These

comments were also analyzed and are discussed herein under the heading of "Miscellaneous Comments on Substantial Improvement". However, no action is being taken on these comments in the final rule since there would be no opportunity to allow for public comment. FEMA will consider these comments in their evaluation of issues for inclusion in future rule making.

Substantial Improvement

In the proposed rule, FEMA included a number of revisions to the definition of "substantial improvement" in § 59.1 which are intended to clarify portions of that definition. The proposed revisions addressed the following three areas that have been identified as being in need of clarification: substantially damaged structures, historic structures, and cost exemptions for correcting health, safety, and sanitary code related violations.

The creation of a separate definition for substantial damage in the proposed rule resulted from problems communities were having interpreting the substantial improvement definition in cases where a building was substantially damaged and either not fully repaired, or repaired using discounted or donated materials and labor. The new definition codifies FEMA's policy interpretation that a building is substantially damaged, and thus a substantial improvement, when it sustains damage from any cause, whereby the cost of fully restoring the structure to its pre-damaged condition equals or exceeds 50 percent of the market value of the structure before damage occurred, regardless of the actual repair work performed.

Two associations and two States commented in support of the substantial damage definition. However, one State suggested that the definition of substantial improvement be modified to read "the term includes structures which have incurred substantial damage, as defined herein, regardless of the value of or actual costs of repair work performed." Placement of the term substantial damage in quotation marks in the substantial improvement definition directly references the term as defined in § 59.1 of the regulations. Thus there is no need to use the term defined herein as suggested.

FEMA does not agree that the suggested additional language value of or * * * costs of should be added to the substantial improvement definition, because the intent of the requirement is apparent in the language as proposed.

The same State called for clarification in the case of improvements made to substantially damaged structures costing less than 50 percent. The

respondent was concerned that the regulations do not explicitly state that such improvements must meet elevation and other NFIP requirements. FEMA notes that regardless of the level of repairs made to the structure once it is substantially damaged, the structure immediately becomes a substantial improvement and must comply with all of the applicable flood plain management requirements in § 60.3. FEMA believes that these conditions are clear in the definitions of substantial improvement and substantial damage and the references to substantial improvement in § 60.3 of the NFIP regulations.

FEMA points out that the enforcement of the substantial improvement requirements should occur at the time the initial permit for repair is submitted, regardless of the amount of repairs called for in the permit. In the majority of cases, substantially damaged structures will be condemned by the local building code department, necessitating repairs prior to reoccupancy. This should not only prevent unpermitted improvements from being made to substantially damaged structures, but also should ensure that when required repairs are made (regardless of the level), that the substantial improvement requirements in § 60.3 are enforced.

One State questioned the rationale for requiring substantially damaged structures, for which less than 50 percent repairs are made, to meet the requirements of substantial improvement. FEMA's rationale is based on post-flood experience gained through FEMA Regional NFIP and Hazard Mitigation activities. Experience has shown that substantially damaged structures initially repaired to less than 50 percent, are, over time, fully repaired and many times even improved beyond the value of the structure prior to damage. Minimal or partial repairs are often made initially to substantially damaged structures to allow for reoccupancy as required by safety or building codes, or because of the limited monies available to many victims immediately after a flood. However, in subsequent years as monies become available or as other conditions permit, these structures are ultimately fully repaired, and in many cases further improved. The substantial damage definition was thus created to reduce the amount of unprotected investment in flood hazard areas due to these situations. FEMA points out that in some form, the Federal Government (the NFIP, various disaster assistance programs, etc.) would likely be obligated to pay a

significant portion of the future damages to these unprotected structures.

The proposed rule also modified the substantial improvement definition to explicitly state that the costs required to remedy code deficiencies are deductible from the cost of the improvement for the purpose of determining substantial improvement only if (1) and appropriate regulatory official such as a building official, code enforcement officer, fire marshal, or health officer was informed about and knew the extent of the code related deficiencies; (2) the deficiencies were in existence prior to the repair or improvement and not triggered solely by the fact that the structure is being improved; and (3) it is the minimum necessary to bring the deficiencies into conformance with code requirements.

One State wrote in support of the new language covering deductions for code related deficiencies, but also expressed concern that the cost of implementing flood damage reduction (floodproofing or retrofitting) measures for structures would be counted toward substantial improvement and that this is contrary to sound flood plain management.

However, this has not been a common problem. Because of the infrequent situations where the additional cost of floodproofing measures has triggered the substantial improvement requirement, FEMA does not believe that an additional exclusionary provision for floodproofing measures in the substantial improvement definition is necessary at this time.

The same respondent also raised concern that local officials would object to the added responsibility of documenting all substandard conditions in structures prior to their improvement and that this is not an everyday practice of building officials. FEMA understands that local building officials do not make a practice of surveying structures in order to document all items not compliant with the local building code. FEMA is not suggesting that local officials assume such a responsibility. The burden of documenting and proving that certain improvements are deductible because they are needed to fix substandard conditions rests with the permittee (owner or contractor).

Miscellaneous Comments on Substantial Improvement

Comments from two associations and one State supported the substantial improvement rule changes, but recommended that the present 50 percent threshold be reduced or that a fixed monetary sum or square footage measurement be used instead. The issue of changing the substantial improvement

threshold was not addressed in the proposed rule and therefore no action is being taken on it in the final rule since there would be no opportunity to allow for public comment. Also, any changes made to the threshold, either by increasing or decreasing the percentage or by changing to a fixed monetary or square footage criteria, would require flood plain management ordinance revisions for the nearly 18,000 communities participating in the NFIP. FEMA does not wish to require ordinance revisions at this time due to the burden it would place on communities, NFIP State Coordinating Offices, and FEMA Regional Offices.

FEMA notes that the substantial improvement threshold of 50 percent was initially chosen because it generally conformed with established zoning standards for non-conforming uses and some national building code requirements that also use a 50 percent threshold.

In its ongoing evaluation of the substantial improvement requirement, FEMA has concluded that, at this time, the promotion of more effective enforcement of the present requirement, through technical assistance, guidance and education, is a more practical first approach for mitigating flood losses, as opposed to making the requirement more restrictive.

Another State indicated that there is an inequity in the relative size and value of improvements that can be made to structures of different size and value. It was stated that very large and costly improvements can be made to very large and costly structures without triggering the substantial improvement requirement. Whereas, very small improvements can often trigger substantial improvement requirements on low valued structures. To remedy this situation, it was suggested that a square footage increase instead of a monetary percentage be used as a threshold.

FEMA notes that a square footage criteria can also create inequities. For instance, it may preclude making additions to large industrial or commercial structures. In addition, the exclusive use of a square footage criteria would not address those improvements such as rehabilitations that do not involve an increase in a structure's surface area.

One State addressed the situation where several incremental improvements, each less than 50 percent, are made to a structure, such that cumulatively, over time, these improvements exceed 50 percent. It was mentioned that these incremental improvements are not covered by the

current definition of substantial improvement which evaluates improvements on an individual, or improvement-by-improvement basis.

This issue was not addressed in the proposed rule and therefore is not being considered in the final rule. FEMA does note, however, that one difficulty in implementing a national standard for tracking permits over the life of a structure is that many smaller or more rural communities do not have the capability and expertise to inspect and keep accurate records of cumulative improvements. In addition, there are a number of administrative problems and equity issues in requiring such an approach.

Many communities across the country have chosen to adopt a more restrictive substantial improvement requirement that requires the cumulative tracking of permits. FEMA encourages the adoption of these more restrictive standards in a community's ordinance and recognizes the precedence that these standards have over the minimum NFIP requirements.

One State recommended that FEMA define the term market value in the regulations and provide guidance and technical assistance documents on its use in determining substantial improvement. FEMA recognizes that there is some confusion about what the market value of a structure is and how it should be determined for the purposes of substantial improvement. FEMA also recognizes that there is a need to provide clarification to communities on how market value is to be determined in ways acceptable to FEMA.

However, many States and communities already have market value defined in State zoning enabling legislation or property taxation legislation. FEMA believes that it is more desirable at this time not to impose a potentially conflicting definition on states or communities, but to provide them with the flexibility to use their own definition. In addition, the issue of market value was not addressed in the proposed rule. It would not be appropriate to establish a definition of market value in a final rule without first giving the public a chance to comment.

Therefore, FEMA has chosen not to define market value in the regulations at this time. It should be noted that for the purposes of determining substantial improvement for the NFIP, the market value of a structure includes only the value of the structure in question—not the land, landscaping, detached accessory structures, or the geographic location of the structure. In determining substantial improvement, the value of the land must always be subtracted.

Various appraisal and real estate associations have different versions of the definition of market value. However, these definitions do not vary a great deal and a general definition of market value reads as follows: The most probable price for which the appraised property (in this case just the structure in question) will sell in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest and assuming that neither is under duress.

It should be noted that FEMA has distributed a document entitled "Questions & Answers: Substantial Improvement & Substantially Damaged Structures in Post Disaster Situations". A part of this document addresses the use of market value and provides acceptable alternatives to estimate it. In the near future FEMA will publish this document in final form. Also in the near future, FEMA will publish a substantial improvement guidance document for local permit officials. A significant portion of that document will discuss acceptable ways to determine substantial improvement, including techniques for estimating, and sources for obtaining or verifying, both market value and cost of improvements.

Historic Structures

The proposed rule included a separate definition in § 59.1 for "historic structure" which is consistent with the Department of the Interior (DOI) definition of "certified historic structure". In addition, language was proposed for § 60.6(a) to clarify that variances granted to historic structures (1) should be only the minimum deviation from NFIP criteria that is necessary to assure that the historic character and design of the structure is not destroyed (i.e., the minimum necessary to afford relief) and (2) must not preclude the continued designation of a structure as a historic structure as defined by the NFIP.

The intent of the proposed modification was to clarify the current definition of substantial improvement and the procedures covering variances as they relate to the exclusions of historic structures. Also, through the use of objective identification criteria of the DOI, the intent was to help reduce the number of non-historic structures that were mistakenly exempted from NFIP requirements due to confusion about what constituted a historic structure. The new definition should help promote more effective identification and verification of historic structures because the new NFIP criteria are

consistent with DOI criteria. In addition, communities will now be able to fully utilize existing Federal and State listings for historic structures. Under the new definition, another benefit will be that if an alteration made to a structure results in a loss of DOI status, the structure will also lose its NFIP status as a Historic Structure. If that alteration constitutes a substantial improvement the structure must comply with NFIP requirements for new construction.

One State and one association suggested that the rule change as proposed would create a conflict between the exclusion of historic structures in the substantial improvement definition and the treatment of historic structures in the variance provisions (the substantial improvement definition as proposed did not provide "minimum necessary to afford relief" language and a safeguard statement to ensure that alterations to a structure do not preclude its continued designation as a historic structure). It was suggested that the reference to historic structures in the variance section be deleted because it would always be superseded by the language in the substantial improvement definition.

Some communities have adopted ordinances that require variances for improvements to historic structures and do not exclude such improvements from the substantial improvement definition. These communities must follow the variance criteria which contains a clause for the "minimum necessary to afford relief". FEMA agrees that as proposed there is potential for confusion between the variance and substantial improvement procedures because the variance criteria is somewhat more restrictive on the treatment of historic structures. Although the two procedures differ on this matter, communities have the option of using either procedure.

Rather than delete the requirements in the variance section as suggested by one association, FEMA will also add the safeguard provision proposed for the variance provisions to the substantial improvement definition, which will help ensure that structures do not lose their DOI designation. This condition is already implicit in the existing substantial improvement definition and constitutes a clarification, rather than an expansion of the definition.

FEMA is not at this time adding a "minimum necessary to afford relief" clause to the substantial improvement definition. The treatment of historic structures in the variance criteria can be amended without changing ordinances to address the "minimum necessary to afford relief" issue, because it is already

in the variance criteria. However, a similar provision can not be added to the substantial improvement definition without requiring ordinance revisions because it would be more restrictive than the current definition.

One association expressed concern that the inclusion of local certified historic structures in the definition could lead to abuse of the substantial improvement exclusionary provisions for historic structures. The new NFIP definition of "historic structure" includes structures individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved State program or directly by the Secretary of the Interior. FEMA notes that many of these locally certified structures are already on the National Register of Historic Places and that the total number of structures exempted by this requirement should increase very little. In fact, as previously mentioned, the more objective identification criteria of the DOI will help reduce the number of non-historic structures that were mistakenly excluded from the substantial improvement requirement in the past due to confusion. As already noted, under the new definition, another benefit will be that if an alteration made to a structure results in a loss of DOI status, the structure will also lose its NFIP status as a "Historic Structure". If that alteration constitutes a substantial improvement the structure must comply with NFIP requirements for new construction.

Start of Construction

The proposed rule modified the definitions of "substantial improvement" and "start of construction" by adding the terms "rehabilitations" and "additions", and removing the term "reconstruction". FEMA felt that the terms "rehabilitation" and "addition" better describe the types of improvements that actually occur to structures and are terms more commonly used in the building industry. However, one State suggested that the term "reconstruction" not be deleted because it more adequately describes those cases where an entire structure is demolished and a new one is built on the old foundation or slab.

FEMA agrees and will retain the term "reconstruction" in the definitions of "start of construction" and "substantial improvement" while leaving the terms "additions" and "rehabilitations" as proposed.

Development

In the definition of development, the proposed rule added "storage of equipment and materials" to the examples of activities subject to community permit requirements. The intent of the modification was to clarify the existing definition so that communities would understand that continuous storage operations such as lumber yards and automobile junk yards are development and are subject to permit requirements and the "no rise" floodway (§ 60.3(d)(3)) and one-foot rise flood plain (§ 60.3(c)(10)) encroachment provisions.

One State favored the addition of the term "storage of materials and equipment" to the definition, but suggested that the terms "extraction" or "deposition" of materials also be added. The terms "mining", "dredging" and "filling" in the present definition are generally applicable to the suggested terms "extraction" and "deposition". Therefore, FEMA thinks that adding these additional terms is unnecessary. All earth moving activities that alter the landscape have always been included in the definition of development and should be regulated by a community.

One local and one State government opposed the additional language, arguing that it would cause confusion and add an unnecessary and extra burden on local permit officials, and that they would have to regulate even the smallest and most temporary storage activities. FEMA makes a distinction between the very temporary storage of materials and equipment in flood hazard areas and those storage activities associated with continuous or seasonal businesses, construction operations, or other commercial and industrial enterprises. Transient activities such as the short term parking of heavy equipment on a construction site in a flood hazard area or the brief roadside storage of sand and salt piles in anticipation of impending winter storms would constitute temporary storage. FEMA does not consider these to be examples of "development", but temporary activities that a community should be aware of, but not necessarily subject to flood plain permit requirements. The permanent or seasonal operation of storage yards for pieces of disabled or unemployed heavy equipment or the continuous but fluctuating storage of thousands of board feet of lumber associated with logging or saw mill operations are examples of "development". Such storage is subject to local permit

requirements including the regulations under § 60.3(c)(10) and (d)(3).

It is a community's responsibility to make a prudent and reasonable distinction between types of storage activities. This distinction should be based on considerations such as the length of storage time, nature of the materials or equipment, physical characteristics of the flood plain, and characteristics of the flood flows. As a guide, the smaller the flood hazard area and longer the storage time, the more concerned a community should become with the placement of materials and equipment and the impact it would have on storage and conveyance of flood waters.

FEMA believes that most communities have always required permits for the storage of equipment and materials. The addition of the term "storage of equipment and materials" is simply a clarification, not an expansion, of the "development" definition and should not significantly affect the permit requirements of a community. The essential point is that equipment or material permanently or seasonally stored on a site (regardless of whether the total volume of the storage seasonally fluctuates) represent an encroachment which may increase flood levels during the base flood.

One State specifically objected to the inclusion of the term "storage of equipment and materials", arguing that the development definition has always been interpreted to pertain exclusively to construction activities. It was stated that some communities have enacted single purpose flood plain management ordinances or base their ordinances on building codes and thus can only regulate the construction of buildings. FEMA emphasizes that communities must have provisions in their ordinances, regardless of whether they are single purpose or based on building codes, to regulate land use through the permitting of those development activities which do not entail the construction of buildings. Ordinances which do not have such provisions are deficient and will not allow a community to properly enforce the minimum requirements of the NFIP. Many activities besides the construction of buildings, including the "storage of equipment and materials", can cause increases in floodflows and exacerbate a community's flood problems, and must be regulated.

FEMA will finalize the definition as proposed and believes that most communities will continue to be able to make responsible determinations about the storage of materials and equipment without unnecessarily burdening their

permit procedures. However, at the suggestion of one association to provide further guidance to ensure that the added language does not cause confusion, FEMA will distribute policy guidance to its Regional Offices.

New Construction

In the proposed rule, the definition of "new construction" in § 59.1 was modified to affirm FEMA's interpretation that the term also includes any subsequent improvements to a structure that already meets the definition of "new construction". In explaining this modification in the supplementary information of the proposed rule, FEMA stated that the "substantial improvement" definition applies to existing structures, and that once a structure meets the definition of "new construction", any further improvements to that structure must meet "new construction" requirements. While this is true, FEMA would like to clarify, based on comments received from one State and one association, that substantial improvement applies to two different types of structures: (1) All existing structures; i.e., structures built prior to the adoption of a Flood Insurance Rate Map (FIRM) by a community and (2) "New Construction" (Post-FIRM structures) in communities that have undergone map revisions resulting in areas with more restrictive zone designations (e.g., A-Zone to V-Zone) of increased Base Flood Elevations. Substantially improved post-FIRM structures located in areas affected by map revisions must be brought into compliance with regulations applicable for the revised zone designations and BFEs which became effective after the structure was built.

Over time, this distinction will become more important, as more FIRMs are revised and more post-FIRM structures become subject to substantial improvement requirements. Therefore, FEMA cannot change the definition to strictly apply to existing structures as suggested by one State and one association.

Enclosures Below the Lowest Floor

Paragraph (c)(5) of § 60.3 was revised in the proposed rule to make it clear that the openings requirement in that paragraph applies only to enclosures that are usable solely for vehicle parking, building access or storage. The intent of this change was strictly for convenience purposes and eliminates the need to refer back to the definition of "lowest floor". One association expressed concern that this clause would not include structures that have

unusable enclosures such as crawl spaces below the lowest floor, and that this may result in a failure to apply the openings requirement to these crawl spaces.

It has always been FEMA's interpretation that the inclusion of unusable enclosed areas below the lowest floor such as crawl spaces is implicit in the definition of "lowest floor". The lowest floor definition contains a clause which limits use for enclosures. Not using a space meets this limitation on use. In addition, although the definition does not explicitly reference unusable areas, few problems to date have arisen from misinterpretation. FEMA notes that many crawl spaces are in fact used to access utilities or for limited storage. FEMA does not envision a problem because of this clarification and does not believe that it is necessary to modify the rule as proposed.

Flood Hazard Identification Provisions

Of the 30 responses received addressing flood hazard identification issues, 18 were from local governments, six from national or state associations, three from regional agencies, two from state governments, and one from a private firm. The majority of the comments received were directed to that portion of the proposed rule dealing with the use of alternative hydrologic and hydraulic computer models in the submission of map revision requests. It was the consensus of these respondents that portions of the proposed rule were too restrictive and they suggested that it be expanded. The final rule contains language which amends a portion of the proposed rule to reflect these comments. The remainder of the comments received were on that portion of the proposed rule involving alluvial fans. Several varied concerns were discussed. As a result of some of these concerns, minor changes were made to the proposed provisions covering alluvial fans.

Use of Alternative Hydrologic or Hydraulic Computer Programs

When a map revision requestor is seeking to revise effective base flood elevations the existing NFIP regulations require the requestor to the same computer model that was used to develop the effective base flood elevations unless it can be demonstrated that the original computer model is unavailable or its use is inappropriate. In order for an alternative computer model to be accepted by FEMA, the program must be accepted for general use by a governmental agency or

notable scientific body, must be well-documented including a user's and programmer's manual and must be available to the general user.

The proposed rule expanded this portion of the NFIP regulations by providing clarification of the criteria for acceptable computer programs submitted to FEMA as supporting data for a request to revise base flood elevation determinations. Specifically, the proposed rule included an explanation of "governmental agency", "notable scientific body" and the requirement that the alternative computer program be available to the general user.

"Governmental agency" was defined by the proposed rule as being an agency of the Federal government that was responsible for water resource activities. "Notable scientific body" was limited by definition to the National Academy of Sciences or comparable organizations and specifically excluded individual universities and colleges. The requirement that the alternative computer program be available to the general user was interpreted to mean that the program source code will be sent to FEMA free of charge with fully documented permission from the owner that FEMA may release this information and the user's manual to whomever requests it.

The changes in the regulations advanced by the proposed rule were thought to be necessary to: Eliminate confusion regarding the terms used; ensure adherence to the same engineering standards applied in the preparation of the original map and FIS report; assure that information based on alternative computer models is scientifically and technically correct and; guarantee the availability of the data and methodology documentation to ensure that the right of the community and other property owners to review and appeal the new analysis, or to submit subsequent map revision requests based on the new analysis, is not infringed upon.

The bulk of the comments received were directed to that portion of the proposed rule dealing with the use of alternative hydrologic and hydraulic computer models in the submission of map revision requests (19 of the 30 correspondents commented in this regard). Three of the respondents were National or State associations, two were state agencies, three were regional agencies and eleven were local government agencies.

It was the consensus of 18 of these respondents that the proposed definition of "government agency" was too restrictive and they suggested that it be

expanded to include the NFIP's state coordinating agencies and other organizations engaged exclusively or predominantly in flood and stormwater management activities. They commented that Federal agency methodologies are notably deficient in their treatment of certain flow conditions and/or types of localized storms and rainfall patterns and that locally available programs can provide superior solutions to these problems. They also contended that standards and methods developed by local agencies with operating responsibilities are far more likely to be locally correct in application. Further, they posited that securing a Federal agency's endorsement of a non-Federal agency activity is not reasonable because of the Federal agency's bias in the performance of flood-related analyses and assessments. They expressed the opinion that, " * * * the NFIP is a community program and that study methodology for flood risk analyses must be characteristic to the affected community and not limited to Federal ideology and scope." They also voiced concern that one major Federal agency has recently stopped supporting its computer programs and given the current funding situation other Federal agencies are likely to follow suit. Finally, they noted that there is no regulatory substitute for the judgment of an experienced and knowledgeable engineer familiar with local conditions and methodologies.

Only one respondent stated that the restriction described in the proposed rule would result in a uniform approach to problem-solving which is clearly a bonus to the local communities.

Four of the respondents stated the opinion that the requirement for computer programs to be in the public domain would eliminate the incentive for computer program development and would stifle a source of innovation that is many times larger than that available within the Federal agencies. They pointed out that NFIP studies, restudies and map revisions represent the potential market for many Ph.D. theses aimed at improving the science of hydrology through the development of new computer programs and expressed concern that individuals producing such theses could not hope for an economic return on their research if the research results were to be made available to the public at virtually no cost. One commentator also noted that "approved" Federal computer programs are remarkably antiquated, many still retaining their "batch process" orientation from their original 20-year old formats.

Three respondents favored the requirement that computer programs be in the public domain. One of these stated that it supported the clarification of the phrase "available to the general user," a second remarked that it has no problem with the requirement that the alternative methodology be available to the general user, while the third endorsed the concept because it would result in a uniform approach to problem-solving, which is clearly a bonus to local communities.

The 18 respondents that took exception with the requirement of the proposed rule, that an alternative computer program be approved by an agency of the Federal government before being accepted for use in processing a map revision request, raised several concerns that have merit.

It was not the intent of the proposed rule to require Federal methods to be used for local flood control design or local regulatory programs, nor was it the intent to require local agencies to adopt methodologies that were nonresponsive to unique and localized phenomena. Rather the language of the proposed rule was developed to assure that there was adherence to the same engineering standards applied in the preparation of the original map and FIS report and that when requesting changes to NFIP maps and FIS reports, adequate supporting data and documentation be submitted to allow FEMA to review and evaluate the requests and to carry out its responsibility to ensure that the information to be presented is scientifically and technically correct. Also, an underlying intent in attempting to clarify guidance as to which computer programs would be acceptable is to ensure consistency between the original analysis and the analysis performed for the map revision request so as to prevent the introduction of discrepancies that may be attributable solely to model differences. FEMA was also concerned with the proliferation of computer programs and the role of the Agency in reviewing, testing, and verifying such programs when they were submitted as the basis for flood insurance map revisions.

Locally adopted and sponsored methodologies that are alternatives to federally endorsed and sponsored methodologies may have been used in preparing the original map and FIS reports. Therefore, the Agency has no objection to the use of these same alternative methodologies when revisions to the original map and FIS reports are requested. However, when such methodologies, or newly developed methodologies have been incorporated

into a computer program, FEMA needs to assure that the program has been adequately reviewed and tested and that it is available for further review and testing by those parties who have a right to appeal flood map changes based upon its use.

The final rule contains language which amends the pertinent portion of the proposed rule to reflect this view and to specify when a computer program that has not been previously accepted by an agency of the Federal government may be used to request a map revision. In general, the final rule provides for the use of computer programs which have been reviewed, tested, and accepted by Federal, state or local government agencies with responsibility for flood control or flood plain land use regulation.

FEMA believes it has a strong obligation and a public trust to assure that the data and methodology documentation is available to communities and property owners likely to be impacted by the map revision and that the right of the community and property owners to review and appeal the new analysis is not infringed upon. Also, a similar guarantee of access to the data and methodology to impacted property owners is necessary to assure that the updating of base flood elevations and maps will occur in a consistent and efficient manner as hydrologic or hydraulic conditions change in the future.

The proposed rule contained language that may have caused the respondents to have misconceptions as to who would be provided copies of the methodology documentation (e.g., computer program source codes) and data. The final rule has been reworded to make it clear that only those present and future parties impacted by flood insurance mapping developed or amended through the use of the computer program will be entitled to this consideration.

Mapping and Revision of Areas Subject to Alluvial Fan Flooding

The revisions to §§ 59.1 and 65.13, setting forth FEMA's policy for issuing map revisions for SFHAs on alluvial fans, are necessary because of the high-hazard environment on active alluvial fans, the current level of interest in their development, and an increasing demand for map changes for areas on alluvial fans.

Alluvial fans are geomorphic features characterized by cone- or fan-shaped deposits of boulders, gravel, sand, and fine sediments that have been eroded from mountain slopes, transported by floodwater draining upstream watersheds, and then deposited on the

adjacent valley floor. Active alluvial fans are areas of extreme hazard subject to flash floods and high-velocity flows. Unlike riverine flooding, which is associated with permanent channels and identifiable floodplains, or shallow flooding characterized by slow-moving sheetflows, flooding that occurs on active alluvial fans is characterized by fast-moving debris and sediment-laden shallow flows. The paths followed by these flows are prone to lateral migration and sudden relocation to other portions of the fan. In addition, these fast-moving flows present hazards associated with erosion, debris flow, and sediment transport.

Alluvial fans occur in a variety of environments, particularly in arid, semi-arid, or seasonally dry regions, where the sediment supply is large enough that deposition can occur. Such locations are particularly common along faulted or tectonic mountain fronts in California, Colorado, Nevada, Utah, Oregon, Texas, Arizona, Idaho, New Mexico, Wyoming, Montana, and Washington; however, alluvial fans are also found in Alaska, West Virginia, Kentucky, and Tennessee. Some of the fastest-developing areas of the United States are in the arid and semi-arid southwestern regions, where alluvial fans occupy a large portion of the land area.

For flood insurance purposes, FEMA has chosen the 100-year flood as the base flood for the determination and mitigation of flood hazards and for setting insurance rates. However, the technology of mathematically modeling the hydrodynamics of water and debris flows on alluvial fans is still in the early development stage. Therefore, the estimation of the values of the various hazard parameters associated with the base flood is highly uncertain for alluvial fans.

Further research is needed to provide better understanding of the factors that affect alluvial fan flooding, including: the hydrology of the watersheds above and below the apex; the effects of alluvial fan geometric characteristics, sediment source, and quantity; the effect of sediment on channel avulsion; the stability of flood channels on alluvial fans; the location and extent of the distinct hydraulic zones on the fan; the determination of the stability of existing man-made structures during major flood events; and the effects of those structures on the natural alluvial fan boundaries.

In addition, the state of the art for the design and construction of other than major structural projects (i.e., whole fan protection projects) is not well developed. The efficacy of more

localized projects in providing protection from fan hazards is not well-known or readily assessable. Further research is also needed to investigate construction techniques and to assess design parameters for the construction of flood mitigation structures on fans. Unfortunately, the needed research will take time to complete.

Given the present interest in development on alluvial fans, the high-hazard environment that is present on active alluvial fans, and the increasing demand for Flood Insurance Rate Map (FIRM) changes for such areas, FEMA has identified the need to develop a policy for issuing map revisions for SFHAs in such areas. FEMA believes that it is prudent to take a conservative stance concerning the removal of the SFHA designation, and its associated lender notification and mandatory insurance purchase requirements, from active alluvial fans. FEMA will, therefore, consider as a basis for map revisions involving active alluvial fans only major structural flood mitigation measures that are supported by appropriate engineering analyses.

Such measures should be designed to mitigate all hazards associated with active alluvial fan flooding, which include inundation, erosion, scour around structures, and debris and sediment flow and accumulation, in addition to aggradation and degradation of the conveyance systems. In addition, the short- and long-range effects of such measures on adjacent properties must be considered. Major mitigation structures may include, but are not restricted to, diversion dikes, flood walls, detention basins, and diversion channels with inlet and outlet systems.

Several communities employ special construction standards and zoning regulations for flood mitigation in developments on alluvial fans. While such approaches are encouraged, their efficacy in the control of floodwaters on alluvial fans is uncertain. Therefore, FEMA will not generally recognize such approaches by themselves as an adequate basis for map revision.

Because of the complexities associated with the many variables affecting flooding on alluvial fans and the lack of information with which to quantify the major fan hazards and provide the appropriate construction techniques for structures on alluvial fans, the creation of an overall development master plan of flood control, drainage maintenance, and floodplain management is encouraged by FEMA. Such plans allow for strategic management of alluvial fans at the early stage of development. At this stage, the

community is afforded a number of alternatives for dedicating specific portions of the fan to both structural and nonstructural measures that will address the unique hazards associated with alluvial fan flooding.

Eleven of the responses on the proposed rule commented on the part involving alluvial fans. These respondents included seven local governments, one private engineering firm, two associations, and the National Wildlife Federation (also writing on behalf of the Coast Alliance and the Natural Resources Defense Council).

The primary issue addressed by several respondents was that not all alluvial fans or similar landforms (or parts thereof) are subject to the types of flood hazards assumed by the proposed rule. They expressed a concern that if an area of special flood hazard is on an alluvial fan that is no longer active (i.e., not subject to aggradation by sediment or shifting flow paths), it could be removed from the FIRM only as a result of structural flood mitigation measures, even though data may exist that demonstrate that the area is not subject to the flood hazards assumed by the proposed rule. To remedy this apparent shortcoming, the respondents suggested that the proposed definition of alluvial fan be revised by including a description of landforms that are similar to alluvial fans but not subject to the same type of flood hazards and a description of the processes of alluvial fan formation that result in parts of the alluvial fan being isolated from those flood hazards.

In reviewing these responses, FEMA recognized that the language in the proposed rule identified a particular landform (i.e., alluvial fan) and not a particular type of flood hazard. The purpose of the proposed rule was to establish the design criteria and data submittal requirements for crediting, on a FIRM, a structural flood-control measure with protecting an area identified as being subject to alluvial fan flooding—not an area simply identified as being on an alluvial fan. Therefore, rather than defining an active alluvial fan, the final rule defines the type of flooding (i.e., alluvial fan flooding) to which it applies. Note that the final rule does not preclude FIRM revisions based on improved hydrologic, hydraulic, or topographic data or on technical data identifying errors in the original flood analysis. Data requirements and submission procedures for those types of requests are described in § 65.6.

One respondent expressed a concern that the proposed definition of apex may not be adequate when applied to the analysis required in the proposed rule (in § 65.13(c)(1)). In particular, he

pointed out that, on some alluvial fans, entrenched channels exist that convey floodwaters from the mountain front to some point farther down the alluvial fan.

In such cases, the apex is not the point of highest elevation on the alluvial fan, but rather is the point at which the entrenched channel terminates and flood flows emerge onto the unentrenched fan surface. Because "apex" was referred to in the proposed rule at the point at which certain analyses are to apply, the definition has been replaced with one that lends itself to flood hazard analyses. On "younger" alluvial fans, whose drainage basins offer an abundant sediment source, the apex is typically at the mountain front. On "older" alluvial fans, an entrenched channel may exist that isolates the upper portions of the fan from all but the rarest of flood events, thus rendering those portions "inactive." The apex on the "older" alluvial fans is typically at the downstream end of the entrenched channel.

On some alluvial fans, entrenchment may not have evolved to such an extent that the entrenched channel has the capacity to convey all flood flows relevant to flood insurance applications. In that case, a point analogous to an apex may exist at the downstream end of the entrenched channel (applicable for flood flows whose magnitudes are less than the channel capacity) along with the apex at the mountain front (applicable for flood flows whose magnitudes are greater than the channel capacity).

Five respondents expressed concern that § 65.13(b) of the proposed rule excluded areas subject to alluvial fan flooding from the provisions of Part 70, which is the vehicle to remove parcels of land that have been inadvertently included in an area of special flood hazard. Because of the additional flood hazards associated with alluvial fan flooding, elevation data, as required under part 70, may not be enough to show that a parcel of land has been inadvertently included in a SFHA. In addition, because community involvement is not necessary for map amendments processed under part 70 and because FEMA wishes to encourage community involvement in the development of areas subject to alluvial fan flooding, requests for FIRM revisions in such areas are more appropriately processed under part 65 (specifically, § 65.5). Nevertheless, an appellant could submit technical data demonstrating that his or her property is not subject to active alluvial fan flooding and, therefore, falls within the conditions provided for in part 70.

One respondent expressed concern with a statement in § 65.13(b) of the proposed rule excluding the provisions of § 65.5 regarding map revisions based on the placement of fill. Specifically, this respondent suggested that the following statement was unclear: "In general, topographic alterations alone, by fill or other means, will not serve as a basis for removing SFHA designations from alluvial fans."

The "Supplementary Section" of the proposed rule did contain information which would have helped the respondent understand the context of the referenced portion of the proposed rule. Summarized, this information states, "FEMA will, therefore, consider as a basis for map revisions involving alluvial fans only major structural flood mitigation measures that are supported by appropriate engineering analyses." These structural flood mitigation measures may involve topographic alterations. However, because of the extremely erosive nature of high-velocity flood-flows on alluvial fans and their capacity to carry large sediment loads, the placement of fill, by itself, does not preclude the undermining and flooding of structures elevated in this manner. Therefore, individual structures or parcels of land that have been identified as subject to alluvial fan flooding will not be excluded from SFHAs only by means of topographic alterations unless these alterations occur in conjunction with structural flood-control measures that are supported by appropriate engineering analyses. Hence § 65.13(b) contains language to recognize that while topographic alterations may occur, they in general, will not serve as a basis for removing areas subject to alluvial fan flooding from SFHAs.

One respondent pointed out that because of the uncertainty associated with the flood flow path in alluvial fan flooding, the design discharge described in § 65.13(c)(1) may have less than a one-percent probability of impacting any particular point downfan from the apex. He suggested that this uncertainty be taken into consideration when defining the design discharge for flood-control measures.

FEMA recognizes that the probability of flooding by a particular discharge event occurring at a fan apex generally decreases as the fan widens. This decrease in flooding probability is taken into consideration by FEMA in establishing the downstream limits of the SFHAs on alluvial fans. Although the precise location of a flood path in a particular event may be unpredictable, the one-percent-annual-chance (100-

year) discharge event at the apex will be experienced, once every 100 years, on the long-term average, somewhere within the SFHA. If the SFHA were spanned by individual structural flood-protection measures designed to alleviate flood hazards only up to those with a 100-year return interval defined at the specific site (i.e., considering the uncertainty in the flood flow path), then the 100-year flood defined at the apex, when realized, would exceed the design of all individual measures; thus, 100-year flood protection would not be achieved on the alluvial fan as a whole. Therefore, prudence dictates that a structural flood-control measure, in order to be credited on a FIRM with affording protection from alluvial fan flooding, should be designed to protect against the hazard associated with the 100-year flood defined at the apex.

One respondent recommended that § 65.13(c) be expanded to require analyses showing that a proposed development project "will not exacerbate the flood, erosion, or landslide hazards on the alluvial fan or areas up or downstream from it."

As discussed previously, FEMA believes that the creation of an overall master plan that balances flood control and drainage needs with those of the planned development is the responsibility of the community. This responsibility is addressed, in part, under the flood plain management program regulations specified in part 60. By requiring that the impact of any flood-control measures be assessed and approved by the community and other agencies with jurisdiction over the placement of flood-control structures, the final rule assures that the community and other agencies are afforded the opportunity to exercise this responsibility. FEMA is responsible for accurately depicting the flood hazards as they exist. The community and other responsible agencies have the obligation and authority to assess any adverse impacts caused by flood-control measures. Therefore, FEMA must depict the effects, regardless of their nature, of such flood-control measures.

Two respondents expressed the opinion that, contrary to FEMA's determination, the proposed rule has a significant economic impact and should undergo a regulatory flexibility analysis.

FEMA believes that the rule does not have a significant impact because the rule only defines the criteria for crediting, on a FIRM, a structural flood-control measure with protecting areas subject to alluvial fan flooding. If such credit is not sought, the rule has no impact. The mapping of an area subject to alluvial fan flooding as a SFHA does

not prohibit or limit development of a site. Also, the insurance cost by itself does not have a significant impact. While this designation does subject the site to insurance purchase requirements, minimal elevation (usually 3 feet or less in AO Zones) of new construction yields rates that are lower than those associated with most other areas subject to these requirements.

Seven respondents agreed with FEMA that further research is needed to provide better understanding of the factors that affect alluvial fan flooding. Four of those respondents questioned the adequacy of current technology to address the analyses required under § 65.13 (c) and (d). Several respondents expressed the opinion that the rule should not be promulgated until the basic research is completed or a list of approved techniques is developed, and called for Federal funding to support a program of research and technology development. FEMA considers the current technology, in combination with appropriate factors of safety, adequate to produce designs of flood-control measures that protect an area from the hazards of alluvial fan flooding. FEMA has reviewed several approaches used to support requests for FIRM revisions that adhered to and met the objectives of § 65.13 and resulted in the requested revisions.

To allow for the utilization of advances in technology without continual adjustments to the regulations, FEMA remains flexible in defining techniques that can be used to satisfy the requirements of § 65.13 (c) and (d) in accordance with § 65.6(e) of its existing regulations, whereby improved methodologies resulting from ongoing research may be utilized to effect map changes. FEMA therefore believes that it is not prudent to specify methodology in the regulations.

With reference to the suggestion that rule promulgation be delayed until the state of the art is more advanced, FEMA believes it must respond with a rulemaking at this time to meet the increasing demand for FIRM revisions for areas subject to alluvial fan flooding. An alternative would be to retain the designation of alluvial fan flooding regardless of the extent of flood protection installed. Such an approach would be unfair to those local jurisdictions with heavy investments in adequately designed flood-control measures. This rulemaking has the flexibility to incorporate new technology as research continues and fulfills the aforementioned demand.

The final rule adds definitions for "Alluvial Fan Flooding" and "Apex." Additionally, the final rule amends part

65 to add a new section to establish the policies, principles, and data requirements for mapping and revising alluvial fan SFHAs.

FEMA has determined, based upon an Environmental Assessment, that the final rule does not have significant impact upon the quality of the human environment. As a result, an Environmental Impact Statement will not be prepared. A finding of no significant impact is included in the formal docket file and is available for public inspection and copying at the Rules Docket Clerk, Office of General Counsel, Federal Emergency Management Agency, 500 C Street SW., Washington, DC 20472.

The final rule does not have a significant economic impact on a substantial number of small entities and has not undergone regulatory flexibility analysis.

The final rule is not a "major rule" as defined in Executive Order 12291, dated February 17, 1981, and hence, no regulatory analysis has been prepared.

The information collection requirements contained in part 65 of this rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* and have been assigned OMB control number 3067-0147.

List of Subjects in 44 CFR Parts 59, 60 and 65

Flood insurance, Flood plains.

Accordingly, 44 CFR Chapter I, Subchapter B is amended as follows:

PART 59—GENERAL PROVISIONS

1. The authority citation for part 59 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 59.1 [Amended]

2. Section 59.1 is amended as follows:

a. By adding alphabetically, a definition of "alluvial fan flooding" to read as follows:

* * * * *

Alluvial fan flooding means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and, unpredictable flow paths.

* * * * *

b. By adding, alphabetically, a definition of "Apex" to read as follows:

* * * * *

Apex means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

c. By adding to the definition of "development" after the word "operations" the words "or storage of equipment or materials".

d. By adding, alphabetically, a definition of "Historic structure" to read as follows:

Historic Structure means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

e. By revising the definition of "New Construction" to read as follows:

New construction means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

f. By adding to the definition of "start of construction" after the word

"reconstruction," the words "rehabilitation, addition", and by adding the following sentence at the end of the definition: "For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building."

g. By adding, alphabetically, a definition of "Substantial Damage" to read as follows:

Substantial damage means 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.

h. By revising the definition of "Substantial Improvement" to read as follows:

Substantial improvement means 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 before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or

(2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

PART 60—CRITERIA FOR LAND USE MANAGEMENT AND USE

3. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 60.3 [Amended]

4. Section 60.3 is amended as follows:

a. By adding in paragraph (c)(5) between the words "that" and "are" the phrase "are usable solely for parking of vehicles, building access or storage in an area other than a basement and which".

b. By removing the sentence in paragraph (e)(4) that begins with the word "Wind" and adding in its place "Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards."

c. By removing the sentence in paragraph (e)(5)(ii) that begins with the word "Maximum" and adding in its place "Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards."

§ 60.6 [Amended]

5. Section 60.6 is amended by removing in paragraph (a) the sentence "Variances may be issued by a community for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or a State Inventory of Historic Places, without regard to the procedures set forth in this section", and adding in its place "Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure."

PART 65—IDENTIFICATION AND MAPPING OF SPECIAL HAZARD AREAS

6. The authority citation for part 65 continues to read as follows:

Authority: 42 U.S.C. 4001, *et seq.*; Reorganization Plan No. 3 of 1978; E.O. 12127.

§ 65.6 [Amended]

7. Section 65.6 is amended by revising paragraph (a)(6) to read as follows:

(a) * * *

(6) Any computer program used to perform hydrologic or hydraulic analyses in support of a flood insurance map revision must meet all of the following criteria:

(i) It must have been reviewed and accepted by a governmental agency responsible for the implementation of programs for flood control and/or the regulation of flood plain lands. For computer programs adopted by non-Federal agencies, certification by a responsible agency official must be provided which states that the program has been reviewed, tested, and accepted by that agency for purposes of design of

flood control structures or flood plain land use regulation.

(ii) It must be well-documented including source codes and user's manuals.

(iii) It must be available to FEMA and all present and future parties impacted by flood insurance mapping developed or amended through the use of the program. For programs not generally available from a Federal agency, the source code and user's manuals must be sent to FEMA free of charge, with fully-documented permission from the owner that FEMA may release the code and user's manuals to such impacted parties.

§ 65.14 [Redesignated from § 65.13]

6. Part 65 is amended by the redesignation of § 65.13 as § 65.14 and the addition of a new § 65.13 to read as follows:

§ 65.13 Mapping and map revisions for areas subject to alluvial fan flooding.

This section describes the procedures to be followed and the types of information FEMA needs to recognize on a NFIP map that a structural flood control measure provides protection from the base flood in an area subject to alluvial fan flooding. This information must be supplied to FEMA by the community or other party seeking recognition of such a flood control measure at the time a flood risk study or restudy is conducted, when a map revision under the provisions of part 65 of this subchapter is sought, and upon request by the Administrator during the review of previously recognized flood control measures. The FEMA review will be for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and shall not constitute a determination by FEMA as to how the flood control measure will perform in a flood event.

(a) The applicable provisions of §§ 65.2, 65.3, 65.4, 65.6, 65.8 and 65.10 shall also apply to FIRM revisions involving alluvial fan flooding.

(b) The provisions of § 65.5 regarding map revisions based on fill and the provisions of part 70 of this chapter shall not apply to FIRM revisions involving alluvial fan flooding. In general, elevations of a parcel of land or a structure by fill or other means, will not serve as a basis for removing areas subject to alluvial fan flooding from an area of special flood hazards.

(c) FEMA will credit on NFIP maps only major structural flood control measures whose design and construction are supported by sound engineering analyses which demonstrate that the measures will effectively

eliminate alluvial fan flood hazards from the area protected by such measures. The provided analyses must include, but are not necessarily limited to, the following:

(1) Engineering analyses that quantify the discharges and volumes of water, debris, and sediment movement associated with the flood that has a one-percent probability of being exceeded in any year at the apex under current watershed conditions and under potential adverse conditions (e.g., deforestation of the watershed by fire). The potential for debris flow and sediment movement must be assessed using an engineering method acceptable to FEMA. The assessment should consider the characteristics and availability of sediment in the drainage basin above the apex and on the alluvial fan.

(2) Engineering analyses showing that the measures will accommodate the estimated peak discharges and volumes of water, debris, and sediment, as determined in accordance with paragraph (c)(1) of this section, and will withstand the associated hydrodynamic and hydrostatic forces.

(3) Engineering analyses showing that the measures have been designed to withstand the potential erosion and scour associated with estimated discharges.

(4) Engineering analyses or evidence showing that the measures will provide protection from hazards associated with the possible relocation of flow paths from other parts of the fan.

(5) Engineering analyses that assess the effect of the project on flood hazards, including depth and velocity of floodwaters and scour and sediment deposition, on other areas of the fan.

(6) Engineering analyses demonstrating that flooding from sources other than the fan apex, including local runoff, is either insignificant or has been accounted for in the design.

(d) Coordination. FEMA will recognize measures that are adequately designed and constructed, provided that: evidence is submitted to show that the impact of the measures on flood hazards in all areas of the fan (including those not protected by the flood control measures), and the design and maintenance requirements of the measures, were reviewed and approved by the impacted communities, and also by State and local agencies that have jurisdiction over flood control activities.

(e) Operation and Maintenance Plans and Criteria. The requirements for operation and maintenance of flood control measures on areas subject to alluvial fan flooding shall be those

specified under § 65.10, paragraphs (c) and (d), when applicable.

(f) Certification Requirements. Data submitted to support that a given flood control measure complies with the requirements set forth in paragraphs (c) (1) through (6) of this section must be certified by a registered professional engineer. Also, certified as-built plans of the flood control measures must be submitted. Certifications are subject to the definition given at § 65.2.

(Approved by the Office of Management and Budget under control number 3087-0147.)

Dated: August 7, 1989.

Harold T. Duryea,

Federal Insurance Administrator.

[FR Doc. 89-18945 Filed 8-14-89; 8:45 am]

BILLING CODE 6718-05-M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 22

[CC Docket No. 88-475; FCC 89-160]

Public Land Mobile Services; Cellular Services

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Commission has revised § 22.43(a)(1) of its rules, and has added a new section, § 22.43(d). These changes will allow Public Land Mobile Service (PLMS) and cellular applicants to begin construction of facilities after filing FCC Form 401 but prior to receiving an authorization, as long as certain conditions are met. Under the previous rule, applicants could not begin construction until they received an authorization. The revised rule will allow applicants to provide service to the public more efficiently and will eliminate an unnecessary regulation.

EFFECTIVE DATE: September 18, 1989.

ADDRESSES: Federal Communications Commission, 1919 M Street, NW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: Pamela Gerr, Mobile Services Division, Common Carrier Bureau, (202) 632-6450.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order adopted May 17, 1989 and released August 2, 1989. The full text of this action is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street NW., Washington, DC. The complete text of this action may also be purchased from the Commission's copy contractors,