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GENERAL ACCOUNTING OFFICE

4 CFR Part 21

Bid Protest Regulations

AGENCY: General Accounting Office.

ACTION: Final rule.

SUMMARY: These rules reflect adoption of and amendments to the General Accounting Office's proposed regulation amendments published April 6, 1990 (55 FR 12834) and respond to comments submitted. The General Accounting Office's Regulations implement sections 3551-3556 of title 31, United States Code. These rules are intended to improve the effectiveness of the bid protest process especially in the areas of document production, hearings and remedies.

EFFECTIVE DATE: April 1, 1991.

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SUPPLEMENTARY INFORMATION: On April 11, 1989, the General Accounting Office (GAO) published an advance notice of proposed rulemaking soliciting comments on how its bid protest regulations could be amended to improve the effectiveness of the protest process (54 FR 14361, April 11, 1989). That Notice specified that GAO was particularly interested in comments concerning the release of agency documents during a protest and regarding formal fact finding hearings. GAO received 25 comments in response to the Notice. After carefully considering the comments received in response to the Notice, GAO published proposed regulation amendments along with an explanation of the reasons why the amendments were proposed on April 6, 1990 (55 FR 12874). These amendments

were the subject of public comment. In light of all the comments received, several changes are made.

The Comments

GAO received comments on the proposed regulation amendments from 37 respondents. The following is a discussion of the principal issues raised in the comments and GAO's response as well as some additional related clarifications to the regulations.

In response to several general comments from agencies that protests which suffer from procedural deficiencies should be dismissed as soon as practicable § 21.2, which sets for the timeliness rules for filing protests is clarified by adding a new § 21.2(b) stating that initial protest submissions must show that the protest is timely or it may be dismissed. Under this rule, which has been previously set forth in Norfolk Dredging Company—Second Request for Recon., B-236259.3, Dec. 7, 1989, 89-2 CPD ¶ 525, protesters will not be permitted to introduce for the first time on reconsideration the information upon which the timeliness of the protest relies. In order to accommodate the new section current § 21.2(b) is redesignated § 21.2(c).

Section 21.3(d)(1) established that GAO may issue a protective order where appropriate to limit the release of privileged information and information that would confer a competitive advantage on the protester or interested parties. Several contracting agencies suggested that requiring the disclosure of privileged information pursuant to a protective order would place agency personnel at risk of violating the prohibition in the Trade Secrets Act, 18 U.S.C. 1905 (1988), against the disclosure of trade secrets unless authorized by law and would impede the government's ability to obtain such information from offerors in the future.

The Competition in Contracting Act of 1984 (CICA) requires that within such deadlines as the Comptroller General prescribes, federal agencies shall provide to an interested party any document relevant to a protested procurement action that would not give that party a competitive advantage and that the party is otherwise authorized by law to receive. 31 U.S.C. 3553(f). CICA also provides GAO authority to prescribe such procedures as may be necessary to the expeditious decision of

protests. 31 U.S.C. 3555(a). The bid protest process operates most efficiently when GAO has before it a complete record upon which to base its decision. In order to develop such a record the protester to the extent possible should be given access to all information considered by the procuring agency in making the determination which forms the basis of the protest. The availability of this information provides the protester with a full opportunity to present its side of the case and thus assures that GAO will have before it a complete record of the protested procurement as developed by the interplay between the protester and the agency. GAO's document disclosure procedures, including the issuance of protective orders, issued pursuant to 31 U.S.C. 3555(a) and 3553(f), are intended to meet this need for a full record. Modified § 21.3(d)(1) provides that any party or the contracting agency may request that GAO issue a protective order limiting the release of particular documents that contain information that is privileged or the release of which would result in a competitive advantage. Since under the new § 21.3(d)(3) only individuals not involved in competitive decisionmaking will be authorized access to such documents, the release of documents under the protective order will not confer a competitive advantage on the recipient and thus should not deter offerors from furnishing information to the government.

A number of commenters have requested guidance concerning the type of information that will be placed under a protective order. GAO believes that in the usual case the information to be protected will consist of trade secrets and commercial or financial information and privileged or confidential data; that is, information coming within the scope of exemption (b)(4) of the Freedom of Information Act, 5 U.S.C. 552(b)(4) (1988). Such proprietary information will usually be found in the proposals submitted by offerors and the agency's evaluations of those proposals.

GAO has changed § 21.3(d)(1) to permit any party to a protest, not just the contracting agency as previously provided, to request that a protective order be issued. This change reflects the fact that parties may have interests distinct from the agency's in limiting disclosure of certain documents. For example, an interested party generally

will have the greatest interest in assuring only limited disclosure of proprietary information in its proposal.

GAO also has extended from 15 to 20 days the period allowed by § 21.3(d)(1) for a party or the contracting agency to request that a protective order be issued. This extension is in response to the concern expressed by many agencies that in most cases the 15-day requirement would not allow sufficient time for contracting officials to assemble and review the record so as to determine whether and to what extent information may require protection. It is GAO's view that a request for a protective order must be filed as soon as possible before the report due date, and in any case no more than 20 days after the protest filing date, to permit finalization of the terms of the protective order in sufficient time so that the agency can furnish the relevant documents with the copies of the report provided to the protester and interested parties. Assuring that copies of the report include all relevant documents to be furnished to a party will facilitate the timely submission of comments on the report and adequate preparation for any hearing.

In addition, § 21.3(d)(1) has been revised to clarify that copies of the request for a protective order filed with GAO shall be furnished simultaneously to all parties. GAO believes that emphasizing the necessity for the simultaneous furnishing of copies will facilitate the expeditious consideration of requests for changes to the proposed order and its finalization.

The provision found in § 21.3(d)(1) that the terms of the protective order shall be "determined" by conference, telephone conference or other appropriate means prior to the due date for the agency report, has been included in new § 21.3(d)(2). The new section establishes timeframes for requesting that specific information or individuals be included in or excluded from the order, provides for responses to such requests by opposing parties, and now states that the terms of the protective order shall be "established" prior to the due date for the report. This new provision was added to set forth an orderly procedure for establishing the parties and documents to be covered by a protective order. GAO intends by substituting "established" for "determined" and relocating the sentence to § 21.3(c)(2) to emphasize that the terms of the order should be set in a single process which should be completed prior to the due date for the report.

Several commenters have questioned whether limiting access to protected

materials to attorneys who are not employees of the protester and for other appropriate interested parties would unnecessarily deprive parties represented by in-house counsel of the opportunity to fully participate in and contribute to the protest process. GAO agrees that the appropriate criterion for authorizing access to protected materials should be not whether counsel is an employee or an independent contractor, but, as set forth in the new § 21.3(d)(3), whether applicants for access participate in competitive decisionmaking in federal procurements; GAO expects that authorizing access to privileged information pursuant to a protective order for attorneys not involved in competitive decisionmaking, whether in-house or outside counsel, or in appropriate cases, independent experts or consultants, should avoid conferring a competitive advantage on the recipient of such information. In this regard, new § 21.3(d)(3) requires not only that any individual seeking access submit an application certifying that they are not involved in competitive decisionmaking, but also that they furnish a detailed written statement supporting the certification.

New § 21.3(d)(4) has been added to provide a means by which additional documents, the existence or relevance of which first become evident after a protective order has been issued, may be included under the protective order, or additional individuals not already covered may be included.

A number of commenters expressed concern that the protective orders available under § 21.3(d) will be violated.

Although GAO at one time expressed concern about enforcement of such orders (52 FR 46,445, 46,446, Dec. 8, 1987), sufficient sanctions to deter violations of protective orders are available. Consequently, GAO has added new § 21.3(d)(5), which provides that GAO may refer possible violations of a protective order's terms to the appropriate bar association or other disciplinary bodies. Also, the violation of a protective order may result in restriction of practice before the GAO. Further, new § 21.3(d)(5) provides that a party whose protected information is improperly disclosed shall be entitled to all remedies under law or equity, including breach of contract.

Proposed § 21.3(d)(2) has been renumbered as § 21.3(d)(6). It has been clarified to indicate that the agency may withhold relevant documents from a party only where a protective order has not been issued. If the agency or other party fails to request a protective order, and an order is not issued, then the

agency must include all relevant documents in the copies of the report provided to GAO. The agency must include in the report a list of all the documents not provided to the protester and interested parties and the reasons for withholding them.

Some contracting agencies have complained that the document production procedures in § 21.3(d) are unfair because they do not provide for agency access to protester documents. GAO has no evidence of specific problems with obtaining relevant protester documents (52 FR 46,446, Dec. 8, 1987). Where GAO has concluded that specific protester documents not already in the possession of the agency are relevant and should be included in the administrative record, such documents have been furnished by protesters at GAO's request. Commenters have not established the necessity for a more formal procedure and GAO will not at this time implement one.

Section 21.3(f) is amended to add that where there is a subsequent request for documents, the existence or relevance of which first becomes evident from the agency report, a request by any party or the agency that release of any additional documents be covered by a protective order shall be made in accordance with the § 21.3(d)(4) procedures for the addition of documents to an existing protective order.

Section 21.3(g) which concerns the release of disputed documents by GAO is amended to make clear that GAO may determine that any release of documents withheld from the protester or other interested parties should be pursuant to a protective order under § 21.3(d)(2).

Several commenters have generally questioned § 21.5, which provides for hearings in appropriate cases to develop the bid protest record through oral argument and/or oral testimony. These commenters assert that this may inject unnecessary formality into the GAO bid protest process, while others have supported the hearing procedures as adding a necessary element of due process and have suggested additional procedures. GAO believes that the new hearing procedures strike a balance of keeping the bid protest process as uncomplicated and informal as possible, while giving all of the parties in appropriate cases an opportunity to orally present their cases and hear the positions of, and direct questions on the protest issues to, representatives of other parties. GAO thinks that this will make the hearings more useful than the current informal and fact-finding conferences, particularly since the

hearings will be part of the protest record. Also, § 21.5 permits various degrees of procedural formality to provide as quick, simple and inexpensive a forum as the particular case permits.

Several commenters took issue with § 21.5(a), which gives GAO the discretion to decide whether to hold hearings. They are concerned that this section lacks specific criteria. Other commenters favored this approach, recognizing that GAO must use its experience and judgment to determine whether a hearing is required to ensure the accuracy and completeness of the record. One agency proposed that specific procedures be established to allow parties to comment on hearing requests.

GAO will, of course, permit comments on all hearing or other procedural requests. However, GAO believes it needs to retain the discretion to make the determination as to whether a hearing will serve to clarify the legal and factual issues of the protest on a case-by-case basis and does not believe that any useful purpose would be served by delineating more specific criteria.

Several agencies have questioned why hearings should be granted in response to requests by interested parties. GAO's experience under its current regulations has been that conferences have rarely been warranted in cases in which only an interested party requested one. GAO believes that considerations of fundamental fairness require that it entertain hearing requests by interested parties which, for purposes of participating in hearings, are limited by § 21.0(b) to awardees and those with a substantial prospect of receiving an award if the protest is denied. Regardless of the identity of the requesting party, GAO will consider whether a hearing is warranted, taking into consideration the views of the other parties.

One commenter observed that pre-hearing conferences under § 21.5(b) should not necessarily or even ordinarily be held prior to receipt of the agency report. GAO thinks that observation has merit, particularly in view of the changes in § 21.5(d)(1) permitting a request for a protective order to be made up to 20 days after the protest filing date. Thus, the sentence in this section which states that ordinarily such conferences shall be scheduled prior to receipt of the agency report is deleted.

Some commenters have stated that the pre-hearing conference should be used to resolve all procedural matters relating to the conduct of the hearing. GAO agrees that this is a primary

purpose of the pre-hearing conference and includes appropriate language in § 21.5(b) to make this clear.

Some commenters asserted that there may be instances where more than one pre-hearing conference should be held. GAO agrees there may be unusual circumstances in complex cases where this may be appropriate and § 21.5(b) is modified to allow this possibility.

Several commenters have questioned who will be the cognizant hearing officials under § 21.5(c), with one commenter suggesting that it should be the attorney responsible for drafting the decision, and other commenters suggesting that it should be an Assistant General Counsel or Deputy Assistant General Counsel. GAO sees no purpose in prescribing precisely who will act as hearing officials because special circumstances may require that different GAO staff serve as hearing officials. All hearing officials will have the requisite knowledge and skills to conduct the proceedings.

Several commenters have indicated that hearings at locations other than the GAO office, as allowed by § 21.5(c), should be permitted only with the consent of all parties. GAO agrees that it is important to consider the views of all parties in deciding the appropriate location for a hearing, including the use of teleconference facilities where available. GAO must, however, make the final decision as to hearing location.

Two agencies commented that GAO should not designate individuals to attend the hearing as provided under § 21.5(e), but that the parties should agree on the appropriate participants. The first sentence of this section, which states that all parties shall be represented by individuals who are knowledgeable about the protest, contemplates that agencies and other parties will designate their representatives at hearings, since the parties should ordinarily be in the best position to know who is knowledgeable. GAO will ordinarily permit those representatives to attend the hearing, subject to space limitations. As indicated in the second sentence of § 21.5(e), GAO may require specific additional representatives to attend the hearing, although GAO will consider the views of the parties as to whether specific additional representatives should attend the hearing and whether they should be prepared to testify and be cross-examined. GAO will retain authority to designate hearing attendees in order to avoid burdensome or unreasonable demands on the parties and to maximize the value of the hearings for the decision-making process.

Section 21.5(e) also provides that a hearing will be conducted pursuant to such procedures as GAO may establish. Several commenters have suggested that GAO adopt formal procedures under this section. One agency questioned whether § 21.5(e) contemplated that hearing officials would establish procedures on a case-by-case basis or whether GAO intended to adopt uniform procedures. As was indicated in the GAO commentary on the proposed regulations (55 FR 12835, Apr. 6, 1990), hearings may be more or less formal as the particular protest requires, and this approach is a new one for GAO bid protests. Hearings will be conducted for protests spanning a wide degree of complexity and, while some procedures will be uniform, GAO wishes hearing officials to have the discretion to tailor procedures to fit the circumstances of a particular case. GAO believes that use of these relatively inflexible regulations to promulgate those procedures for the conduct of hearings that will be uniform might delay or inhibit any desired modifications.

Some commenters have suggested that a transcript should routinely be made available pursuant to § 21.5(f), which provides that hearings will be recorded and/or transcribed. A record will be made of all hearings, which may be in the form of a written transcript, video transcription or other medium. Whether reducing a video record, for example, to a written transcript in a particular case is warranted would depend upon the nature of the hearing and whether delay and cost associated with making a transcript would outweigh the possible convenience of that format.

Some commenters have questioned whether the 7 working days provided under § 21.5(h) is sufficient for preparation of hearing comments. While GAO believes this time should normally be sufficient, this section provides that GAO may adjust the time for submission of comments in appropriate circumstances. One such circumstance may be where there is undue delay in the parties obtaining transcripts or recordings of the hearings. In any case, the submission date for hearing comments will be same for all parties.

Section 21.6(e), provided that GAO may declare a protester entitled to recover the reasonable costs of filing and pursuing a protest, including attorney's fees, where the contracting agency decides to take corrective action in response to a protest, but does not notify GAO of its decision to do so until after the date for submission of the agency report. Many contracting agencies opposed this provision, arguing

that it will not encourage corrective action since agencies already strive to resolve meritorious protests quickly in order to conserve their resources; that not all corrective action is taken in response to protest allegations; and that a determination as to whether corrective action is warranted often cannot be made until after the agency report on the protest is compiled and the legal analysis is completed.

Most of the non-agency commenters expressed the opposing view and urged that consideration be given to awarding costs no matter at what point in the protest process the agency decides to take corrective action. These commenters recommended against establishing a firm rule for awarding costs depending on whether the agency decides to take corrective action before or after the report due date, and instead favored use of a flexible test which would consider when the corrective action decision was made as a factor in determining whether to award costs.

GAO has always been of the view that the award of costs in all cases where corrective action is taken may not be appropriate. There may be circumstances where the award of costs, even after submission of the report, is not justified; similarly, there may be cases where the award of costs is proper even where the decision to take corrective action is made before submission of the agency report on the protest. For that reason, § 21.6(e) states that GAO "may" award costs when corrective action is taken. This determination will be made taking into account all the circumstances of each case, including the nature of the protester's allegations, when in the protest process the decision to take corrective action was made and communicated to GAO and the protester, and type of corrective action planned. To clarify that the agency report due date is not a dispositive factor, § 21.6(e) is revised to delete the reference to the due date.

Some commenters stated that the award of costs where corrective action is taken is inconsistent with CICA, which authorizes GAO to award costs only where it makes a determination sustaining a protest. GAO agrees that mere corrective action would not warrant an award of costs. GAO will award costs under 31 U.S.C. 3554(c)(1) (1988) only where it concludes that corrective action is being taken because of a violation of a procurement statute or regulation.

Some commenters suggested that the regulation establish a procedure for the parties to comment on whether costs should be awarded. In response,

§ 21.6(e) has been revised to specify that the protester has 10 days from the time it is advised that corrective action will be taken to file comments as to why protest costs should be awarded and that the contracting agency has 10 days after receipt of the protester's comments to respond to the protester's argument. Section 21.6(e) also has been revised to state that GAO will issue a declaration of entitlement to costs in each case where costs are awarded after corrective action is taken.

Under § 21.6(f), a protester is now required to submit its claim for costs, detailing and certifying the time expended and costs incurred, to the contracting agency within 60 days after receipt of the GAO decision on the protest or the declaration of entitlement to costs. If the protester fails to file its claim within that period, it may forfeit its right to recover such costs.

The commenters generally supported the establishment of a 60-day deadline for filing a claim for costs. One contracting agency suggested that the regulation be revised to specify that a protester "shall" forfeit its right to recover such costs if it fails to file within the time specified. In response, GAO has revised § 21.6(f) to state that the protester's failure to file the claim "shall" result in forfeiture of its right to recover unless it can show that the untimeliness is for good cause.

One contracting agency questioned who will determine whether a claim is forfeited; how the protester will be notified of the forfeiture; and whether the protester can appeal such a determination. GAO contemplates that the issue of forfeiture will be determined when the claim is presented for resolution to GAO, as provided in the penultimate sentence of § 21.6(f).

Some commenters suggested that a time limit should be imposed on contracting agencies to decide claims for costs submitted to them. In response, § 21.6(f) has been revised to specify that agencies shall act on claims for costs as soon as practicable. GAO believes that establishing a more specific deadline for action by the agencies is not appropriate since the ability to decide a claim may not be entirely within the agency's control, for example, where the protester's submission in support of its claim is not adequately detailed or supported to allow the agency to consider the claim.

One commenter suggested that the award of costs should include the costs of pursuing the claim before the contracting agency and GAO. In response, § 21.6(f) has been revised to state that a protester may be entitled to recover the costs of pursuing its claim

before GAO. Such an award would not include costs incurred in pursuing the claim before the contracting agency, since GAO believes that such costs do not come within the definition of protests costs authorized to be recovered under CICA.

In response to several general comments that GAO procedures foster the expeditious decision of protests GAO has added a sentence to § 21.8(d)(4) concerning express option protests providing that if the protester and the contracting agency agree, summary decisions may be issued under the express option provision. This will permit the consideration of more complex cases under the express option as it will eliminate the time-consuming task of drafting a full opinion. A summary decision will have the same effect on the protest as a full opinion but will not serve as precedent for future cases.

List of Subjects in 4 CFR Part 21

Administrative practice and procedures; Government contracts.

The bid protest regulations are amended as follows:

PART 21—[AMENDED]

1. The authority citation for 4 CFR part 21 continues to read as follows:

Authority: 31 U.S.C. 3551-3556.

§ 21.0 [Amended]

2. In § 21.0, paragraph (e) is amended by adding between the words "where" and "the" in the first sentence "in large part."

§ 21.2 [Amended]

3a. In § 21.2, paragraph (a)(1), the first sentence is amended by removing the words "or the closing date for receipt of initial proposals shall be filed prior to bid opening or the closing date for receipt of initial proposals" and adding "or the time set for receipt of initial proposals shall be filed prior to bid opening or the time set for receipt of initial proposals."

b. Paragraph (b) is redesignated as paragraph (c) and a new paragraph (b) is added to read as follows:

* * * * *

(b) Protests which are untimely on their face may be dismissed. It is the protesters' obligation to include in its protest all the information needed to demonstrate its timeliness and protesters will not be permitted to introduce for the first time in a request for reconsideration filed pursuant to

§ 21.12 the information upon which the timeliness of the protest relies.

§ 21.3 [Amended]

4a. In § 21.3, paragraph (h) is removed and paragraphs (c), (e), (f), (g), (i), (j) and (k) are redesignated paragraphs (e), (f), (g), (h), (c), (k), and (j), respectively.

b. In § 21.3, newly redesignated paragraph (c) is amended by adding "all evaluation documents," in the second sentence, after the word "protested."

c. The paragraph is further amended by removing the fifth and sixth sentences in their entirety, beginning with the word "Copies" and ending with "withheld documents."

d. The paragraph is further amended by removing "[Supp. III 1985]" from the fourth sentence and substituting "1988."

e. In § 21.3, paragraph (d) is revised as follows:

(d) Copies of the report on the protest provided to the General Accounting Office, the protester and interested parties entitled to receive them under paragraph (c) of this section shall include all relevant documents, subject to the following:

(1) Any party may request that the General Accounting Office issue a protective order limiting the release of particular documents to counsel for the protester and the interested parties entitled to receive the documents, where the documents are claimed to contain information that is privileged, or the release of which would result in a competitive advantage. The request shall be filed with the General Accounting Office, with copies furnished simultaneously to all parties as soon as practicable after the protest is filed, but in no case more than 20 days after the protest filing date.

(2) Requests by any party that particular documents be excluded from coverage of the protective order, or that particular parties or individuals be included in or excluded from the protective order, shall be filed with the General Accounting Office, with copies furnished simultaneously to all parties, within 2 days after receipt of a copy of the protective order request. Any rebuttal to such a request shall be filed with the General Accounting Office, with copies furnished simultaneously to all parties, within 1 day after receipt of a copy of the request. The terms of the protective order shall be established prior to the due date for the agency report under § 21.3(c).

(3) All individuals seeking access to documents covered by a protective order issued under § 21.3(d)(2) must

represent a party and shall submit an application to the General Accounting Office, with copies furnished simultaneously to all parties, certifying that the individual is not involved in competitive decisionmaking in connection with federal procurements. Each application shall include a detailed written statement supporting the certification. The certification need not be furnished by employees of the contracting agency.

(4) Where the existence or relevance of additional documents first becomes evident after a protective order has been issued under § 21.3(d)(2), any party may request that the documents be covered by the protective order. Any party to the protective order also may request that individuals not already covered by the protective order be included in the order. Requests as to additional documents or individuals shall be filed with the General Accounting Office, with copies furnished simultaneously to all parties. Any rebuttal to such a request must be filed within 1 day after receipt of a copy of the request.

(5) Any violation of the terms of a protective order may result in the imposition of such sanctions as the General Accounting Office deems appropriate, including but not limited to referral of a possible violation to appropriate bar associations or other disciplinary bodies, and restricting the practice of counsel before the General Accounting Office. A party whose protected information is improperly disclosed shall be entitled to all remedies under law or equity, including breach of contract.

(6) Where a protective order is not issued, and the agency withholds relevant documents from a party for any reason, the agency shall include in the report filed with the General Accounting Office and in the copies of the report provided to all parties a list of the documents withheld and the reasons for withholding them. All relevant documents and any documents specifically requested by the protester shall be furnished to the General Accounting Office.

f. In § 21.3, newly redesignated paragraph (e) is amended by removing "(i)" and adding "(c)."

g. In § 21.3, newly redesignated paragraph (f) is amended by removing the end of the last sentence following the words "General Accounting Office" and adding "and the other parties, the requested documents in accordance with § 21.3(d). A request by any party that release of any additional documents be covered by protective order shall be made in accordance with § 21.3(d)(4) within this 5-day period."

h. In § 21.3, newly redesignated paragraph (g) is amended by adding after the word "party" at the end of the first sentence, "and whether that release should be pursuant to a protective order under § 21.3(d)(2)."

i. The first sentence of this paragraph is further amended by removing (d) and adding (c) and by removing (e) and adding (f).

j. The paragraph is further amended by adding after the word "them" and before the word "or" in the second sentence, "subject to the terms of the protective order, if any,"

k. In § 21.3, newly redesignated paragraph (h) is amended by removing "(k)" and adding "(j)."

l. In § 21.3, new paragraph (i) is added as follows:

(i) When the contracting agency fails to provide documents in accordance with § 21.3(d), the General Accounting Office may take any or all of the following actions:

(1) Provide documents to the party or parties entitled to receive them;

(2) Use any authority available under chapter 7 of title 31, United States Code, to obtain the documents;

(3) Draw an inference unfavorable to the agency;

(4) Not allow responses to designated arguments or bases of protest by the agency; or

(5) Impose such other sanctions as may be appropriate.

m. In § 21.3, paragraph (m)(1) is amended by adding "1988" after "41 U.S.C. 601-13."

n. In § 21.3, paragraph (m)(2) is amended by adding "(1988)" after "15 U.S.C. 637(b)(6)."

o. In § 21.3, paragraph (m)(4) is amended by removing "and the award of an 8(a) subcontract" and substituting "is" for "are" after the removed phrase.

p. The paragraph is further amended by adding "(1988)" after "15 U.S.C. 637(a)."

q. In § 21.3, paragraph (m)(6) is amended by removing "[Supp. III 1985]" after "40 U.S.C. 759(h)" and adding "(1988)."

r. In § 21.3, paragraph (m)(8) is amended by removing "[Supp. III 1985]"; after "31 U.S.C. 3551-3556" and adding "(1988)."

s. In § 21.3, paragraph (m)(9) is amended by adding "(1988)" after "41 U.S.C. 35-45."

§ 21.5 [Amended]

5. In § 21.5, the section heading is revised. As revised, § 21.5, reads as follows:

§ 21.5 Hearings.

(a) A request for a hearing may be made by the protester, an interested party who has responded to the notice given under § 21.3(a) or the contracting agency. The request shall set forth the reasons why a hearing is needed for the particular protest and should be made at the earliest possible time in the protest proceeding. The request should also identify any specific factual disputes essential to the resolution of the protest which the requester believes cannot be resolved without oral testimony. The determination to hold a hearing will be at the discretion of the General Accounting Office.

(b) Prior to the hearing, the General Accounting Office may hold pre-hearing conferences to discuss and resolve procedural matters related to the protest, which may include such matters as whether a protective order should be issued under § 21.3(d)(2), whether other restrictions on the release of documents may be imposed, which representatives of the parties should attend the hearing and what procedures should be used at the hearings.

(c) Hearings will be conducted by a General Accounting Office hearing official on a date set by the General Accounting Office as soon as practicable after receipt by the protester and participating interested parties of the agency report and relevant documents. Although hearings ordinarily will be conducted at the General Accounting Office in Washington, DC, hearings may, at the discretion of the General Accounting Office, be conducted at other appropriate locations. Ordinarily, only one hearing will be held on a protest.

(d) All interested parties as defined in § 21.0(b) shall be invited to attend the hearing. Other participants in the procurement who are not interested parties may be permitted to attend as observers and may participate in the hearing only to the extent allowed by the General Accounting Office hearing official. If privileged information or information, the release of which would result in a competitive advantage, is to be disclosed at the hearing, the General Accounting Office hearing official, in his or her discretion, may restrict attendance for all or part of the proceeding.

(e) All parties shall be represented by individuals who are knowledgeable about the subject matter of the protest. The General Accounting Office may designate representatives of the parties to attend the hearing. Such representatives may be questioned by the attending parties and the hearing

official under such procedures as the General Accounting Office may establish.

(f) Hearings shall normally be recorded and/or transcribed. If a recording or transcript is made, any party may obtain copies at its own expense.

(g) If the representative of any party, whose attendance has been requested by the General Accounting Office, refuses to attend such hearing or fails to answer a relevant question, the General Accounting Office may draw an inference unfavorable to the party refusing to cooperate.

(h) If a hearing is held, no separate comments under § 21.3(j) should be submitted unless specifically requested by the General Accounting Office. All parties may file comments on the hearing and report as appropriate with the General Accounting Office, with copies furnished to the other parties within 7 days of the date on which the hearing was held. The General Accounting Office may adjust the time for submission of comments in appropriate circumstances. Failure of the protester to file comments, or to file a written statement requesting that the case be decided on the existing record by the date due may result in dismissal of the protest.

(i) In the post-hearing comments, parties should reference all testimony, admissions, or comments made during the hearing that they consider relevant to the disposition of the protest. Where appropriate, relevant findings of fact by the General Accounting Office hearing official shall be part of the bid protest decision.

§ 21.6 [Amended]

6a. In § 21.6 paragraph (e) is redesignated as paragraph (f) and revised to read as follows:

* * * * *

(f)(1) If the General Accounting Office decides that the protester is entitled to the recovery of such costs, the protester and the contracting agency shall attempt to reach agreement on the amount of the costs. The protester shall file its claim for costs, detailing and certifying the time expended and costs incurred, with the contracting agency within 60 days after receipt of the decision on the protest or the declaration of entitlement to costs. Failure to file the claim within such time shall result in forfeiture of the protester's right to recover its costs. The General Accounting Office may consider an untimely claim for good cause shown.

(2) The contracting agency shall issue a decision on the claim for costs as soon as practicable after the claim is filed. If the protester and the contracting agency

cannot reach agreement within a reasonable time, the General Accounting Office will determine the amount. In such cases, the General Accounting Office may declare the protester to be entitled to the costs of pursuing the claim for costs before the General Accounting Office.

b. A new paragraph (e) is added to read as follows:

* * * * *

(e) If the contracting agency decides to take corrective action in response to a protest, the General Accounting Office may declare the protester to be entitled to recover reasonable costs of filing and pursuing the protest, including attorneys' fees. The protester may file comments with the General Accounting Office regarding whether costs should be awarded within 10 days after being advised that the contracting agency has decided to take corrective action. The protester shall furnish a copy of any such comments to the contracting agency, which may file a response within 10 days after receipt of the protester's comments, with a copy furnished to the protester. The General Accounting Office will issue a declaration of entitlement to costs for each case where costs are awarded after corrective action is taken.

* * * * *

§ 21.8 [Amended]

7. In § 21.8, paragraph (d)(4) is amended by adding at the end of the paragraph "Decisions on protests decided under the express option may at the discretion of the General Accounting Office and with the consent of the protester and the contracting agency be summary in form."

Charles A. Bowsher,

Comptroller General of the United States.

[FR Doc. 91-2236 Filed 1-30-91; 8:45 am]

BILLING CODE 1610-01-M

DEPARTMENT OF ENERGY**Office of Conservation and Renewable Energy****10 CFR Part 435**

[Docket No. CAS-RM-79-112-B]

Energy Conservation Mandatory Performance Standards for New Federal Residential Buildings; Amendments to Interim Standards

AGENCY: Office of Conservation and Renewable Energy, DOE.

ACTION: Final rule.

SUMMARY: The Department of Energy today amends the regulatory requirements for setting interim energy performance standards applicable to the designs of new Federal buildings and for methods to determine compliance with those standards pursuant to the Energy Conservation Standards for New Buildings Act, as amended, 42 U.S.C. 6831, *et seq.* The amendments fall into three categories.

First, today's amendments substitute a modified version (Version 3.0) of the computer program (COSTSAFR) required for use in establishing the applicable performance standard for each design and determining compliance with that standard. There are two modifications to COSTSAFR which are: (i) The addition of a credit for three different massive wall configurations—mass on the inside of the insulation, mass integral with the insulation, and mass on the outside of the insulation; and (ii) the addition of new energy data on the window glass options, including low-emissivity (low-E) glazings. Second, today's amendments provide an alternative compliance procedure that allows a Federal agency on Federal residential projects to utilize innovative designs and energy conservation measures not presently found in the computer program. Third, today's amendments establish requirements for selection of designs which comply with the performance standards for new Federal building designs under 10 CFR part 435 and describe the relationship between those standards and the life cycle cost analysis requirements for such a design under 10 CFR part 436.

EFFECTIVE DATE: July 30, 1991.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

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A. Thermal Mass Walls

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I. Introduction

A. Legislative Requirements and History

The Energy Conservation Standards for New Buildings Act of 1976, as amended (Act), 42 U.S.C. 6831 *et seq.* requires the Department of Energy (Department or DOE) to issue "voluntary performance standards" for the design of new commercial and residential buildings. Federal agencies are required to comply with the standards for the design of new Federal Buildings. 42 U.S.C. 6835. For non-Federal buildings, compliance is voluntary, and the standards serve only as voluntary guidelines. A "Federal building is" any building to be constructed by, or for the use of, any Federal agency which is not legally subject to State or local building codes or similar requirements. 42 U.S.C. 6832(6).

As originally enacted, the Act required the Department of Housing and Urban Development (HUD) to develop, promulgate, implement and enforce compliance with the performance standards. On August 4, 1977, the Act was amended by section 304(a) of the Department of Energy Organization Act, Public Law 95-91, which transferred from HUD to DOE the responsibility to develop and promulgate the standards; HUD retained its implementation and enforcement responsibilities.

Less than a year after DOE published the proposed standards, the Act was again amended by section 326 of the Housing and Community Development Act of 1980, Public Law 96-399. This amendment requires that DOE promulgate interim standards and then final standards. Additionally, the statute requires DOE to conduct demonstration projects in at least two geographical areas of the country. The demonstration projects are for the purpose of evaluating the interim standards, and are to be completed prior to preparation and adoption of the final standards.

In August 1981, Congress again amended the Act, subtitle D of title 10 of the Omnibus Reconciliation Act of 1981, Public Law 97-35, amended the Act to create the term "voluntary performance standards"; eliminate the provision for a possible statutory sanction for non-compliance; and add a provision that, except for Federal buildings, "voluntary standards will be developed solely as

guidelines to provide technical assistance for the design and construction of energy efficient buildings". 42 U.S.C. 6833(a)(4). The term "voluntary performance standards" was defined to mean "an energy consumption goal or goals to be met without specification of the methods, materials, and processes to be employed in achieving that goal or goals, but including statements of the requirements, criteria and evaluation methods to be used, and any necessary commentary." 42 U.S.C. 6832(9).

At the end of 1988, in the middle of this rulemaking, the President signed the Federal Energy Management Improvement Act (Pub. L. 100-615) into law. That Act amended the National Energy Conservation Policy Act to authorize DOE to issue life cycle cost analysis regulations and to require that " * * *. The design of new Federal buildings * * * shall be made using life cycle cost methods and procedures * * *." 42 U.S.C. 8254.

B. Background

On August 20, 1986, the Department published in the *Federal Register* (51 FR 29754) proposed interim performance standards for new Federal residential buildings. The interim performance standards require establishment of an energy consumption goal for the design of a new Federal residential building using the computerized calculation procedure provided in a designated Federal micro-computer program. In response to public comment and with the availability of additional technical information, DOE promulgated interim standards and the revised micro-computer program on August 25, 1988 (53 FR 32536). The revised micro-computer program was designated COSTSAFR (Conservation Optimization Standard for Savings in Federal Residences) (Version 2.0). The COSTSAFR computer program determines a set of options, selected from among the energy conservation measures included within the program, that will produce an estimate of the optimum discounted energy cost for a specific type of residential building in the geographic location where it will be constructed. The program uses the optimum set of energy conservation measures to calculate a total point score which, in turn, serves as the energy consumption goal for the design of the Federal residential building.

On the same day that the interim standard was published, August 25, 1988, the Department published a companion notice which proposed adopting thermal mass credits for walls

and new credits for glazing options to be contained in a further modified version of COSTSAFR (Version 3.0) and adding an alternative compliance procedure for innovative designs (53 FR 32547). That proposal is the principal basis for today's amendments to the interim standards.

DOE proposed modifications to COSTSAFR resulting mainly from evolving DOE research regarding thermal mass and windows. First, DOE proposed adding to the COSTSAFR program credits for certain thermal mass wall configurations in site-built homes. Second, DOE proposed incorporating new energy data into COSTSAFR for several window glazing options, including clear, heat absorbing, low-emissivity, and reflective glazings.

The alternative compliance procedure proposed by DOE was devised to accommodate innovative building designs containing energy conservation measures not covered by COSTSAFR. The proposed procedure was based on a comparison of the estimated energy cost performance of the innovative design to that of the closest prototype design in COSTSAFR.

Details regarding additions of thermal mass and glazing credits (which are reflected in the modifications to the COSTSAFR computer program) and of the alternative compliance procedure may be found in Section II of the Supplementary Information portion of this Notice and DOE responses to public comment on the proposed modifications may be found in Section III. Before today's amendments take effect, DOE will distribute the modified version of the COSTSAFR computer program and supporting documentation to Federal agencies and other interested individuals and groups, and also make it available through the Department of Commerce's National Technical Information Service.

The interim standards will remain in effect until DOE promulgates final standards. The Act requires DOE to conduct a demonstration of the interim standards, and report its findings to the Congress, prior to the development and promulgation of final standards.

Federal agencies have 180 days from the publication of today's modifications to incorporate them into their residential building standards. This is to allow Federal agencies to make a smooth transition to the use of COSTSAFR Version 3.0.

II. Description of the Modifications to the Interim Standards

A. Thermal Mass Walls

A new thermal mass wall section has been added to the COSTSAFR computer program (Version 3.0). In the point system COSTSAFR Version 3.0 produces, the format of the thermal mass section is similar to the format of the window section. The designers (i.e., architect, engineer, etc.) will have a choice between a wood frame wall and a thermal mass wall. For the mass wall, the designers will choose values for the following parameters: the heat capacity of the mass, the total wall R-value, and the location of the insulation relative to mass (outside, integral, or inside). The heat capacity ranges from 4 to 20 (Btu/ft² °F). The heat capacity is only for the massive material and does not include other materials in the wall.

To assist the designers, a section has been added to the U.S. Department of Energy, 1988 *COSTSAFR 3.0—User's Manual (Conservation Optimization Standard for Savings in Federal Residences)*, In Support of Proposed Modifications to Interim Energy Conservation Standards for New Federal Residential Buildings (*COSTSAFR 3.0—User's Manual*), Washington, DC, DOE/CE-0222, Volume 1 of 2, page A.20 with tabular data for the heat capacities and R-values of materials commonly used in heavy-weight walls. This information was obtained from American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc., *ASHRAE, 1985 Fundamentals*, Inch-Pound Edition (*ASHRAE Handbook*), Atlanta, Ga. The designers will use the appropriate numbers for their selected construction materials from the *ASHRAE Handbook* tabular data and a worksheet in the *COSTSAFR 3.0—User's Manual* to calculate the wall thermal resistance (R-value) and the heat capacity. The Federal agency will supply designers with a copy of the tabulated data and the *COSTSAFR 3.0—User's Manual* worksheet.

Thermal mass data have been added to the COSTSAFR computer program energy data files and compliance forms for all seven site-built prototypes. No mass construction data has been developed or added for manufactured homes (mobile homes) due to the fact that mobile homes are fabricated using light construction technology to

facilitate transportation. The added data consist of the regression coefficients for each location and for the heating and cooling seasons. These location-specific coefficients, which have been documented in Lawrence Berkeley Laboratory, 1987 *Affordable Housing Through Energy Conservation, A Guide to Designing and Constructing Energy Efficient Homes; Technical Support Document* (1987 *Affordable Housing Technical Support Document*) LBL-16342, pages 84 and 85, (DRAFT),¹ are used by COSTSAFR as shown in equations 1, 2, and 3 later to determine the energy loads for a range of heat capacities and wall R-values. The energy loads are then converted into points as discussed in Chapter 5 of the Interim Federal Residential Standards, U.S. Department of Energy, 1988 *Technical Support Document, In Support of Interim Energy Conservation for New Federal Residential Buildings* (1988 *Technical Support Document*), Washington, DC, DOE/CE-0223, Volume 2 of 4.

Three different massive wall configurations have been modeled for the COSTSAFR computer program (Version 3.0): mass on the inside of the insulation, mass integral with the insulation, and mass on the outside of the insulation. A ranch-style prototype was used for the DOE 2.1 computer simulations of thermal mass, with all components except the walls of the house held constant. The components held constant were a 4-inch, carpet-covered slab foundation, R-30 ceiling insulation, and double glazing with an area equivalent to 15% of the floor area.

For thermal mass in walls, heat capacity and steady-state thermal resistance typically can be varied independently. A wall can be constructed to have high levels of heat storage, or thermal resistance, or both. In the analyses that were conducted to generate the thermal mass wall data, the thickness of the mass was varied to give a large range of total heat capacities. Two different R-values were modeled in each of the three massive wall configurations. Table 1 (see *Affordable Housing Technical Support Document*, page 73) presents the wall characteristics that were modeled.

¹ This publication was subsequently reprinted and published by DOE. The citation for that document is U.S. Department of Energy, 1989, *Affordable Housing Through Energy Conservation, A Guide to Designing and Constructing Energy Efficient Homes; Technical Support Document*, Washington, DC, Volume 2 of 3, DOE/SF/00098-H3.

TABLE 1.—MASS WALL CHARACTERISTICS

Insulation location	Mass thermal conductivity (Btu/hr*ft*°F)	Mass thickness (inches)	Heat capacity (Btu/ft²*°F)	Total wall R-value (hr*ft²*°F/Btu)
Outside.....	0.5	4-8	3.3-13.3	5.20
Inside.....	0.5	4-8	3.3-13.3	5.20
Integral.....	0.03-0.13	4-8	3.3-13.3	5.10

Simulations were run for 45 cities for three wall configurations: a base wall, the base wall with added mass, and the base wall with added mass and added insulation. From the results of the initial runs, each of the cities was grouped into one of 12 zones where the energy savings with the extra mass divided by the savings with both extra mass and resistance were comparable.

Each of the 12 zones was represented by a base city for which 51 DOE 2.1 computer simulations were run, covering the range of wall properties listed in Table 1. From these results, regression coefficients were calculated for each of the three mass locations—outside, integral, and inside—and each of the 12 zones, for both heating and cooling. These regression coefficients were incorporated in the following equations to give the change in the load due to the addition of mass:

$$\text{Mass wall incremental load} = C_1 + C_2 \cdot \text{EXP}(C_0 \cdot \text{HC}) + C_3 \cdot U_t + C_4 \cdot \text{EXP}(C_0 \cdot \text{HC}) \cdot U_t$$

Equation 1

where:

$C_0, \dots, C_4$ = regression coefficients

HC = the heat capacity (Btu/ft²*°F)

U_t = the total wall U-value (Btu/hr*ft²*°F)

EXP = the exponential function

Using the existing COSTSAFR (Version 2.0) data base for wood frame walls, Equation 2 was developed to estimate the heating and cooling loads for the basic wood frame walls with U-values corresponding to the specific set of R-values given in the point system for thermal mass walls.

$$\text{Frame wall load} = C_5 \cdot U_t^2 + C_6 \cdot U_t + C_7$$

Equation 2

where: $C_5, \dots, C_7$ = regression coefficients.

The incremental load for the mass wall is added to the load for a wood frame with the same total U-value to obtain the total energy load for the mass wall:

$$\text{Total mass wall load} = \text{frame wall load} + \text{mass wall incremental load}$$

Equation 3

For a more detailed discussion of the development and insertion of thermal mass data files in COSTSAFR, see 1987 *Affordable Housing Technical Support Document*, pages 73-85. For a more detailed discussion on converting the total mass wall load into a point score, see 1988 *Technical Support Document*, Section 5.0, pages 5.1-5.6.

B. New Window Data

New window data have been incorporated in the COSTSAFR program (Version 3.0) for all site-built prototypes. The new window data did not address mobile homes due to the fact that building orientation relative to mobile homes is not a controllable factor because they are usually built without a specific site in mind. The sun-tempered (formerly passive solar) section compliance format has been changed by adding a new low-emissivity (low-E) section. The main window section (E) in the compliance forms is unchanged. This section contains the points for clear glass with equal areas in the four cardinal directions (North, East, South, West) with conductive and solar loads combined. The heat absorbing and reflective window sections also remain unchanged. The section for low-E glazing has the same format as the heat absorbing and reflective window sections (i.e., it modifies the points for clear glass).

The new sun-tempered section modifies the window points for different glazing area percentages in the cardinal directions. The points from this section are in addition to the points from the clear glass section. Due to the nature of the solar load equations, point system users, if they want to receive credit for window orientation, have to complete a set of three equations for both heating and cooling in the sun-tempered section. First, they enter the desired window areas (as a fraction of the total window area) in the four cardinal directions (see equations (4) and (7) below). Second, (see equations (5) and (8)), the preliminary numbers are modified by the shading coefficient and the window area as a fraction of the floor area. A table with shading coefficients for the different glass types is provided in the updated *COSTSAFR-3.0 User's Manual* (see page A.11). This table must be provided to designers by the Federal agency. The third set of calculations (Equations (6) and (9)) determine the points for the sun-tempered design. All these calculations will now be found as part of the COSTSAFR compliance form. For a more detailed description of the terms of Equations (4-9), refer to the U.S. Department of Energy, 1988 *Supplementary Technical Support Document, In Support of Proposed Modifications to Interim Energy Conservation Standards for New Federal Residential Buildings*, (Supplementary Technical Support Document), Washington, DC DOE/CE-0222, Vol. 2 of 2, Section 2.2, pages 4-9.

Heating Points

$$A. (C_1 \cdot \frac{1}{n} + C_2 \cdot \frac{1}{e} + C_3 \cdot \frac{1}{s} + C_4 \cdot \frac{1}{w})$$

$$- (C_1 + C_2 + C_3 + C_4) \cdot 0.25 = \frac{\quad}{X}$$

Equation 4

$$B. \frac{X}{SC} \cdot \frac{1}{\%AREA} \cdot \frac{\text{Prototype Floor Area}}{1000} = \frac{Z}{Z}$$

Equation 5

$$C. \frac{Z}{Z} \cdot (C_5 + \frac{Z}{Z} \cdot C_6) = \frac{H}{H}$$

Equation 6

where:

$C_1 \dots C_6$ = constants

SC = Shading coefficient (depends on layers)

n, e, s, w = fraction of glazing with north, east, south, and west orientation, respectively

X and Z = intermediate values used in the calculations

H = number of heating points

Cooling Points

$$A. (G7 \cdot C_1 \cdot \frac{1}{n} + C_2 \cdot \frac{1}{e} + C_3 \cdot \frac{1}{s} + C_4 \cdot \frac{1}{w}) - (C_1 + C_2 + C_3 + C_4) \cdot 0.25 = \frac{X}{X}$$

Equation 7

$$B. \frac{X}{SC} \cdot \frac{1}{\%AREA} \cdot \frac{\text{Prototype Floor Area}}{1000} = \frac{Z}{Z}$$

Equation 8

$$C. \frac{Z}{Z} \cdot (C_5 + \frac{Z}{Z} \cdot C_6) = \frac{C}{C}$$

Equation 9

where:

$C_1 \dots C_6$ = constants

SC = Shading coefficient (depends on layers)

n, e, s, w = fraction of glazing with north, east,

south, and west orientation, respectively
X and Z = intermediate values used in the calculations

C = number of heating points

The new window energy data were generated for each of 45 base locations (see 1987 *Affordable Housing Technical Support Document*, pages 88-111) and for both heating and cooling seasons. The window energy loads were determined separately for the loads due to conduction and the loads due to solar gains. For the conductive load, DOE-2.1 simulations were done for all site-built prototypes and locations, with equally distributed windows having a shading coefficient of 1.00 and an area 12% of the total floor area. Window U-values of 1.10, 0.49, and 0.10 were simulated. The thermal integrity of other components of the building was held at levels consistent with the window levels. Parameters such as the thermostat set points and internal gains were identical to the conditions in the simulations for the original residential housing data base (see 1987 *Affordable Housing Technical Support Document*, see page 32 for thermostat set points, pages 33-35 for internal gain levels).

The conductive loads are a function of the window U-value with the window area as a multiplier. The regression equation used to determine the conductive load is:

$$\text{Conductive load} = \text{area} \cdot (U \cdot C_1 \cdot 24 + U^2 \cdot C_2 \cdot 576)$$

Equation 10

where:

C_1 and C_2 = the regression coefficients

U = U-value

Area = total window area

The solar component of the window load was determined by a set of 52 parametric simulations for the ranch prototype in each of the 45 base locations. The shading coefficient was varied from 1.00 to 0.00 and the total window area ranged from 8% to 20% of the total floor area. Window areas in the four cardinal orientations were varied from 1% to 14% of the floor area. A quadratic multi-variant regression equation was developed as a result of the simulations:

$$\text{Solar load} = \text{ZETA} \cdot (1 + C_7 \cdot \text{ZETA})$$

Equation 11

$$\text{with Zeta} = (C_3 \cdot n + C_4 \cdot e + C_5 \cdot s + C_6 \cdot w) \cdot \text{area} \cdot \text{SC}$$

Equation 12

where:

$C_3 \dots C_7$ = regression coefficients

Area = the total window area

SC = Shading coefficient (depends on layers)

n, e, s, w = fraction of glazing with north, east, south, and west orientation, respectively

The total window energy load is simply a combination of the conductive and solar loads:

$$\text{Window load} = \text{conductive load} + \text{solar load}$$

Equation 13

Data were produced for all the COSTSAFR window options from the window regression equations (see 1987 *Affordable Housing Technical Support Document*, pages 109 and 111). WINDOW-2, a one-dimensional heat transfer computer program that determines the shading coefficient and the thermal transmittance (U-value) of the glass based on weather conditions, the number of layers, the thickness of the air space, and the glass properties, was used to generate the U-values and shading coefficients for the various types of glass. Glazing thermal and optical properties were obtained from manufacturer product information and the *ASHRAE Handbook*. Weather conditions for the heating season data consisted of 30 °F outside temperature, 70 °F inside temperature, 10 mph outside air speed, and no solar load (night-time conditions). Cooling season weather conditions were taken from the *ASHRAE Handbook*. The U-values and shading coefficients generated by the WINDOW-2 program were used in equations 10 through 13 to determine the window-related energy loads used by COSTSAFR.

C. Alternative Compliance Procedure

The standard method of compliance for the interim standards is for Federal agency use of the COSTSAFR computer program and the compliance forms it produces. The COSTSAFR program uses energy data calculated by the DOE 2.1 computer program in simulations of the

energy performance of nine prototype house designs built with specific material and by specific construction practices. While the COSTSAFR program covers a wide range of energy conservation measures, including varied insulation levels, window options, five types of heating equipment and two types of water heating, it does not have the ability to consider building designs with unusual or innovative energy conservation measures. For example, it does not include designs with such unusual or innovative technologies as zoned heating (a number of rooms or spaces whose temperature can be individually controlled).

Today DOE issues amendments to the interim standard which provide for an alternative compliance procedure for use in determining whether an unusual or innovative building (i.e., includes an energy conservation measure not in COSTSAFR) meets or exceeds the interim standard (i.e., the energy consumption goal) for the building design project in question. In general, the amendment requires a three-step procedure. First, the Federal agency sets the applicable energy consumption goal by (A) Selecting the COSTSAFR prototype design which most closely resembles the unusual or innovative design, and (B) calculating the discounted energy cost for the COSTSAFR prototype design using the optimum levels of the various energy conservation measures included on the COSTSAFR compliance forms. Second, the Federal agency estimates the discounted energy cost for the proposed unusual or innovative design, using (A) The DOE 2.1C computer program to determine estimated heating and cooling loads; (B) the COSTSAFR compliance forms used in the first step or DOE test procedure results for hot water heaters and refrigerator/freezers; and (C) uniform present worth factors from the COSTSAFR compliance forms used in the first step. Third, the Federal agency compares the two discounted energy cost figures calculated under the first two steps. If the discounted energy cost of the unusual or innovative building design is equal to or is less than the discounted energy cost of the selected COSTSAFR prototype, then that unusual or innovative design is in compliance with the applicable energy consumption goal under subpart C of 10 CFR part 435.

DOE has reserved one paragraph under § 435.305(c)(3) for solar domestic hot water heaters. During the demonstration period, DOE will be evaluating the suitability for incorporation by reference into the rule of privately developed test procedures

for such devices. Reliable test procedures for rating energy consumption are essential before a new energy conservation measure could be covered by the alternative compliance procedure. Part of the process of evaluating privately developed test procedures would be proposal for public comment and review under section 32 of the Federal Energy Administration Act, as amended, 15 U.S.C. 788.

The alternative compliance procedure is more complicated than using COSTSAFR because it requires use of DOE-2.1C and several additional calculations and comparisons whereas most of the analysis has already been done for the broad range of energy conservation measures in COSTSAFR. (By the time the alternative compliance procedure becomes effective, some changes will have been made to Point System to make it easier to locate inputs; for example, the compliance forms will have been edited to state the optimum window area percentage and optimum label values for appliances in current year dollars will have been added.) In developing the final standard, DOE intends to work toward simplification, and given the heavy reliance on computer programs, greater user friendliness and flexibility.

Some Federal agencies may design new residential buildings with their own employees, while others may use the procurement process to obtain building designs. Under paragraph (c) of 10 CFR 435.303(c), the head of each Federal agency is required to adopt appropriate procedures to ensure that the design of a new Federal residential building is not less energy conserving than the "energy consumption goal" established for such a building. Part of the task of adopting implementing agency procedures will be the development of appropriate procedures for the procurement process if that process is used. If an agency's procurement requirements for a building design would allow for proposal of a design with an unusual or innovative energy conservation measure, then the agency may also have to provide to an offeror, or advise an offeror how to acquire, necessary materials such as the COSTSAFR and DOE-2.1C computer programs from the National Technical Information Service. If an agency wanted proposals of designs with unusual or innovative energy conservation measures, it might perform the alternative compliance procedure itself rather than impose the obligation to perform the procedure on offerors.

III. Summary of Public Comment on August 25, 1988, Notice of Proposed Modification and DOE Responses

The following is a summary of the public comments received by DOE on the proposed modifications to the COSTSAFR computer program, published in the August 25, 1988, *Federal Register*. Comments were received from August 25, 1988, through November 23, 1988. DOE held a public hearing in Washington, D.C., and a total of 16 comments were received from the five sources who provided written and oral testimony. Their comments were relevant to thermal mass and the alternative compliance procedure and are discussed below. No comments were received regarding the proposed window data. Comments on subjects other than thermal mass or the alternative compliance procedure were deemed out-of-scope and accordingly are not discussed below.

A. Thermal Mass

1. One of the commenters disputed the allowance of lower R-values for masonry walls citing page 3 of Draft 1984 *Affordable Housing Through Energy Conservation Technical Support Document* (copy attached to comment 200). The commenter claimed that variables affecting mass credits have been "ignored". The person who commented also quoted from a study (copy attached to comment 200) performed by the National Institute of Standards and Technology (NIST, formerly the National Bureau of Standards (NBS)). This study used a simulation model on several test building cells to produce data which indicated that in certain circumstances wall mass has a small effect on space heating and cooling loads with the presence of interior mass.

DOE Response: The draft technical support document to which the commenter referred is an early version of the technical support documents which support today's thermal mass data addition to COSTSAFR. None of the variables mentioned on the page that the commenter cited have been "ignored". See §§ 4.1, 6.2.1, 6.3, 1987 *Affordable Housing Technical Support Document*. Moreover, no evidence, other than the NIST study, was cited to support the claim that excessive credit is given to wall mass or that the points associated with wall mass are inaccurate. Although R-values down to R-4 are allowed for thermal mass walls, the effect of lower thermal resistance is accounted for in the energy data base utilized by COSTSAFR. For three

reasons DOE does not believe that the NIST study on the effect of lower thermal resistance warrants eliminating or altering thermal mass data that DOE is adding to COSTSAFR. First, the commenter quoted from the abstract of the study which overlooked statements in the text of the study acknowledging the measurable effects of wall mass on space heating loads. See comment 200, Enclosure 2, page 2. Second, the commenter overlooked the caveats and cautions at pages 30-31 of the study which state that the effect of thermal mass is dependent on variety of interacting factors which differ from house to house. The NIST simulated buildings differed from the COSTSAFR prototypes in ways which involved some of these critical factors, and the NIST study acknowledged at page 31 that its conclusions are limited to the houses simulated. The NIST houses differ from the COSTSAFR prototypes because they were assumed: (1) To be one-story house with smaller floor area; (2) to have less interior furnishings; (3) to have a lower R-value level of ceiling insulation; and (4) to have an unusually high air change rate per hour (see Comment 200, Enclosure 2, page 13, footnote). Third, the computer simulation model for the NIST study, unlike the model used for COSTSAFR (DOE-2.1), is based on a different computer program called BLAST. DOE is considering further research in this area as it begins development of the final standards. Members of the public are encouraged to continue sending DOE relevant information.

2. Another comment criticized the proposed thermal mass modification to the COSTSAFR computer program on the ground that lower point benefits are assigned for wall thermal mass in constructions using crawl spaces or basements rather than slab on grade construction. The commenter requests clarification or an appropriate change in a future version of COSTSAFR.

DOE Response: The comment is in error because points associated with wall thermal mass levels are entirely independent of the selected foundation type. In developing the final standards, DOE intends to address the interaction between thermal mass and alternative foundation types.

3. Also singled out for criticism was the fact that point credits for thermal mass were lower in multi-family units than in single-family units. It was argued that the effects of thermal mass are generally understood to increase as internal gains increase and multi-family units generally have higher heat gains per square foot of floor area.

DOE Response: The analysis documented in the 1987 *Affordable Housing Technical Support Document* (see pages 73-85) showed that differences in thermal mass wall points for different prototypes are dominated by differences in wall area, not internal gains. The points are based on changes in energy losses, and the energy lost through a wall is a function of the total opaque wall area. Multi-family prototypes used by COSTSAFR have smaller mass wall point totals because they typically have smaller exterior wall surface areas per housing unit than the single-family prototypes.

4. Finally, one of the commenters suggested that today's construction methods employ materials other than wood as home building framing material and that appropriate corrections should be made to COSTSAFR to reflect the use of materials such as metal studs.

DOE Response: The addition of framing factors and point system adjustment factors will be considered during the development of the final Federal residential standards. The research necessary to include them had not been conducted at the time of development of the interim standards.

B. Alternative Compliance Procedure

1. There were three concerns expressed in the comments about the proposed alternative compliance procedure. Those concerns were:

a. The alternative compliance procedure is inconsistent with 10 CFR part 436, which requires Federal agencies to use a Federally-established life cycle costing methodology, and which includes the analysis of non-energy operating and maintenance costs, in assessing the cost effectiveness of a building design.

b. The alternative compliance procedure should be expanded to allow use of BLAST and possibly other computer models that are more commonly used by the military services.

c. The alternative compliance procedure is too complicated for Department of Defense (DOD) agencies to use.

DOE Response: a. The comment that the alternative compliance procedure was inconsistent with 10 CFR part 436 caused DOE to review the interim standards in subpart C of 10 CFR part 435 in light of the provisions of 10 CFR part 436, subpart A. As a technical amendment, today's rule adds a new § 435.306 that establishes requirements for selection of designs which comply with the interim standards and describe the relationship between the requirements of subpart C of 10 CFR part 435 and the requirements of 10 CFR

part 436. That new section states that, in selecting a building design or among alternative building designs, it is essential to perform a life cycle cost analysis to identify whether the design in question has higher Net Savings or lower total life cycle costs, calculated in compliance with 10 CFR part 436, than the COSTSAFR prototype and any other alternative building design which is considered. See 10 CFR 436.18 (d), (f), 436.20. In performing a life cycle cost analysis, the Federal agency will have to consider non-energy cash flows such as replacement costs and operations and maintenance which are not part of the COSTSAFR or the alternative compliance procedure. As a result, the Federal agency will choose the design alternative which it estimates is the economically optimal alternative among the design alternatives which are in compliance with the applicable interim standard under subpart C of 10 CFR part 435.²

b. The comment that DOE should expand the alternative compliance procedure to allow the use of BLAST and possibly other computer models that are more commonly used in the military services will in part be satisfied by DOE's exploration of the feasibility of permitting the use of BLAST for the alternative compliance procedure in the final standard.

c. With regard to the comment that the alternative compliance path is too complicated, DOE is exploring a method by which data input to DOE-2 might be greatly simplified and if such a method is developed then it will be included in the final standard. Unless a more stringent standard is in effect pursuant to 10 CFR 435.303(b), DOD and other agencies will have to provide training to their own employees or sufficient information and materials (e.g. DOE-2.1) to enable potential contractors to perform the alternative compliance procedure.

2. Another who commented expressed concern that the alternative compliance procedure could not be completed in the typical 60-90 day response period allowed through most military requests for proposals (RFP).

DOE Response: While not underestimating the complexity of the task, DOE thinks that the analysis required could be completed in the typical 60-90 day response period. If not,

² Consistent with 10 CFR part 436, the COSTSAFR computer program will be modified by the effective date of today's amendments to include current life cycle cost input data and to allow for annual updating of that data.

then that response period should be lengthened where appropriate.

C. General Comments

1. Finally, one comment argued that a 90 day comment period was not sufficient for those who wanted to comment to study the proposed modifications and make informed statements.

DOE Response: DOE considered all comments that were received in a reasonable period of time following the close of comments. The individual making this comment provided comments that were considered by DOE.

IV. PROCEDURAL REQUIREMENTS

A. National Environmental Policy Act

DOE prepared and issued an environmental assessment (EA), (DOE/EA-0300), for the proposed interim standards under the Implementing Regulations of the Council of Environmental Quality for the National Environmental Policy Act of 1969, as amended. The EA addresses the possible incremental environmental effects attributable to the application of the proposed interim standards to the design of Federal residential buildings. A Finding of No Significant Impact (FONSI) was issued on April 17, 1986. DOE has determined that today's modifications to the interim standards do not affect the assumptions or results of the EA, and that the original FONSI is still valid.

B. Executive Order No. 12291

Section 3 of Executive Order No. 12291, 46 FR 13193, February 19, 1981, requires that DOE determine whether a proposed rule is a "major rule" as defined by section 1(b) of that Order, and prepare a preliminary regulatory impact analysis for rules which fall within that definition.

DOE reviewed the Final Interim Rule, completed an "Economic Analysis," 51 FR 29770, August 20, 1986, and concluded that the Final Interim Rule was not a "major rule" under this Executive Order. DOE has determined that the modifications to the interim standards do not constitute a "major rule" either, because the modifications will not result in: (1) An annual effect on the economy of \$100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State or local government agencies or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based

enterprises to compete in domestic or export markets. The modifications to the interim standards will allow alternative credit for three massive wall configurations, new window glass options, and alternative compliance procedures that will allow utilization of innovative designs and energy conservation options not presently found in the computer program.

Given the relatively small number of residential buildings affected by the interim standards, as well as the optional nature of the modifications, DOE has determined that the modifications will not have sufficient effects such as to constitute a "major rule" within the meaning of Executive Order No. 12291.

The modifications to the interim standards were submitted to the Director of the Office of Management and Budget for review as required by section 3(c)(3) of Executive Order No. 12291. The Director has concluded his review under that Executive Order.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 603, 604) requires DOE to consider the effect its rulemaking will have on small businesses in the nation. DOE has considered the modifications in light of DOE's analysis of the small business impacts of the Final Interim Rule (51 FR 29700, August 20, 1986), including its impacts upon manufacturers of building and construction materials and equipment, architects, builders, construction companies. These modifications are minimal, and by creating new options allowing for credit for certain configurations for massive walls, new window glazing materials, and alternative compliance procedures for utilization of innovative designs and energy conservation, will not increase the effects of the interim standards to such a degree as to activate the provisions of the Regulatory Flexibility Act. Consequently, pursuant to section 605(b) of that Act, DOE certifies that this rulemaking will not have a significant impact on a substantial number of small entities.

D. Paperwork Reduction Act

No information collection or record keeping requirements are imposed on the public by these modifications to the interim standards. Accordingly, authorizations are not required under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, as amended, or its implementing regulations, 5 CFR part 132.

E. Federalism Effects

Executive Order 12612, 52 FR 41685 (October 30, 1987), requires that regulations or rules be reviewed for any substantial direct effects on States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among various levels of government. If there are sufficient "substantial direct effects," then Executive Order 12612 requires preparation of a Federalism Assessment to be used in all decisions involved in promulgating and implementing a regulation or a rule. Sections 2 through 5 of Executive Order 12612 set forth the principles, criteria, and requirements to be used in preparing a Federalism Assessment.

The principal impacts of today's modification to the interim standards will be on residential buildings constructed by the Federal government. These modifications are being promulgated pursuant to legislation that states "except in the case of Federal buildings, voluntary performance standards shall be developed solely as guidelines for the purpose of providing technical assistance for the design and construction of energy efficient buildings." 42 U.S.C. 6833(a)(4). Therefore, the modifications will not have a substantial direct effect on the States, the relationship between the States and Federal government, or distribution of the power and responsibilities among the various levels of government.

List of Subjects in 10 CFR Part 435

Architects, Building Code Officials, Buildings, Energy Conservation, Energy Conservation Building Performance Standards, Engineers, Federal Buildings and Facilities, Housing, Insulation, and Voluntary Performance Standards.

Issued in Washington, DC, November 26, 1990.

J. Michael Davis,

Assistant Secretary, Conservation and Renewable Energy.

In consideration of the foregoing, chapter II of title 10, Code of Federal Regulations, part 435, subpart C is amended as follows:

PART 435—ENERGY CONSERVATION VOLUNTARY PERFORMANCE STANDARDS FOR NEW BUILDINGS; MANDATORY FOR FEDERAL BUILDINGS

1. The authority citation for part 435 is revised to read as follows:

Authority: 42 U.S.C. 6831-6870; 42 U.S.C. 8254; 42 U.S.C. 7101, *et seq.*

§ 435.302 Definitions.

2-3. Section 435.302 is revised to read as follows:

(a) *ANSI* means American National Standards Institute.

(b) *ASHRAE Handbook* means American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., ASHRAE Handbook, 1985 Fundamentals. Volume, 1-P Edition.

(c) *ASTM* means American Society of Testing and Measurement.

(d) *British thermal unit (Btu)* means approximately the amount of heat required to raise the temperature of one pound of water from 59°F to 60°F.

(e) *Building* means any new residential structure:

(1) that includes or will include a heating or cooling system, or both, or a domestic hot water system, and

(2) for which a building design is created after the effective date of this rule.

(f) *Building design* means the development of plans and specifications for human living space.

(g) *Conservation Optimization Standard for Savings in Federal Residences* means the computerized calculation procedure that is used to establish an energy consumption goal for the design of Federal residential buildings.

(h) *COSTSAFR* means the Conservation Optimization Standard for Savings in Federal Residences.

(i) *DOE* means U.S. Department of Energy.

(j) *Domestic hot water (DHW)* means the supply of hot water for purposes other than space conditioning.

(k) *Energy conservation measure (ECM)* means a building material or component whose use will affect the energy consumed for space heating, space cooling, domestic hot water or refrigeration.

(l) *Energy performance standard* means an energy consumption goal or goals to be met without specification of the method, materials, and processes to be employed in achieving that goal or goals, but including statements of the requirements, criteria evaluation methods to be used, and any necessary commentary.

(m) *Federal agency* means any department, agency, corporation, or other entity or instrumentality of the executive branch of the Federal Government, including the United States Postal Service, the Federal National Mortgage Association, and the Federal Home Loan Mortgage Corporation.

(n) *Federal residential building* means any residential building to be

constructed by or for the use of any Federal agency in the Continental U.S., Alaska, or Hawaii that is not legally subject to state or local building codes or similar requirements.

(o) *Life cycle cost* means the minimum life cycle cost calculated by using a methodology specified in subpart A of 10 CFR part 436.

(p) *Point system* means the tables that display the effect of the set of energy conservation measures on the design energy consumption and energy costs of a residential building for a particular location, building type and fuel type.

(q) *Practicable optimum life cycle energy cost* means the energy costs of the set of conservation measures that has the minimum life cycle cost to the Federal government incurred during a 25 year period and including the costs of construction, maintenance, operation, and replacement.

(r) *Project* means the group of one or more Federal residential buildings to be built at a specific geographic location that are included by a Federal agency in specifications issued or used by a Federal agency for design or construction of the buildings.

(s) *Prototype* means a fundamental house design based on typical construction assumptions. The nine prototypes in COSTSAFR are: single-section manufactured house, double-section manufactured house, ranch-style house, two-story house, split-level house, mid-unit apartment, end-unit apartment, mid-unit townhouse, end-unit townhouse.

(t) *Residential building* means a new building that is designed to be constructed and developed for residential occupancy.

(u) *Set of conservation options* means the combination of envelope design and equipment measures that influences the long term energy use in a building designed to maintain a minimum of ventilation level of 0.7 air changes per hour, including the heating and cooling equipment, domestic hot water equipment, glazing, insulation, refrigerators and air infiltration control measures.

(v) *Shading coefficient* means the ratio of the heat gains through windows, with or without integral shading devices, to that occurring through unshaded, 1/8-inch clear glass.

(w) *Total annual coil load* means the energy for space heating and/or cooling with no adjustment for HVAC equipment efficiency.

§ 425.304 [Amended]

4. Section 435.304 is amended by substituting the phrase "Version 3.0" for

the phrase "Version 2.0" the four times it occurs in this section.

5. Section 435.305 is added to read as follows:

§ 435.305 Alternative compliance procedure.

(a) If a proposed building design includes unusual or innovative energy conservation measures which are not covered by the COSTSAFR program, the Federal agency shall determine whether that design meets or exceeds the applicable energy consumption goal in compliance with the procedures set forth in this section.

(b) The Federal agency shall determine the estimated discounted energy cost for the COSTSAFR prototype building design, which is the most similar of the COSTSAFR prototypes to the proposed building design, by—

(1) Printing out the COSTSAFR compliance forms for the prototype showing the points attributable to levels of various energy conservation measures;

(2) Calculating the estimated unit energy cost on the compliance forms, on the basis of selecting the optimum levels on the compliance forms or otherwise in the User's Manual for each energy conservation measure; and

(3) Multiplying the estimated unit energy cost by 100.

(c) The Federal agency shall determine the estimated discounted energy cost for the proposed building design by—

(1) Estimating the heating and cooling total annual coil loads of the proposed building design with the DOE 2.1C computer program on the basis of input assumptions including—

(i) Shading coefficients of 0.6 for summer and 0.8 for winter;

(ii) Thermostat setpoints of 78 degrees Fahrenheit for cooling, 70 degrees Fahrenheit for heating (6am to 12 midnight), and 60 degrees Fahrenheit for Night Setback (12 midnight to 6 am, except for houses with heat pumps);

(iii) The infiltration rate measured in air changes per hour as calculated using appendix B of the COSTSAFR User's Manual;

(iv) Natural venting with a constant air change rate of 10 air changes per hour—

(A) When the outdoor temperature is lower than the indoor temperature, but not above 78 degrees Fahrenheit; and

(B) When the enthalpy of the outdoor air is lower than the indoor air.

(v) Internal gains in accordance with the following table for a house with 1540 square feet of floor area, adjusted by

0.35 Btu/ft²/hr to account for changes in lighting as the floor area varies from 1540 square feet—

TABLE 1.—INTERNAL GAIN SCHEDULE (BTU)

Hour of day	Sensible	Latent
1.....	1139	247
2.....	1139	247
3.....	1139	247
4.....	1139	247
5.....	1139	247
6.....	1903	412
7.....	2391	518
8.....	4782	1036
9.....	2790	604
10.....	1707	370
11.....	1707	370
12.....	2277	493
13.....	1707	370
14.....	1424	308
15.....	1480	321
16.....	1480	321
17.....	2164	469
18.....	2334	506
19.....	2505	543
20.....	3928	851
21.....	3928	851
22.....	4101	888
23.....	4101	888
24.....	3701	802

(vi) Thermal transmittances for building envelope materials measured in accordance with applicable ASTM procedures or from the ASHRAE Handbook;

(vii) Proposed heating and cooling equipment types included in COSTSAFR or having a certified seasonal efficiency rating;

(viii) Weather Year for Energy Calculations (WYEC) weather year data (WYEC data are on tapes available from ASHRAE, 1791 Tullie Circle, N.E., Atlanta, Georgia 30329), or if unavailable, Test Reference Year (TRY) weather data (obtainable from National Climatic Data Center, 1983 *Test Reference Year*, Tape Reference Manual, TD-9706, Asheville, North Carolina) relevant to project location.

(2) Estimating the discounted energy cost for the heating and cooling energy loads, respectively, according to the following equation—

Discounted Energy Cost=

$$\frac{\text{Total Annual Coil Load} \times \text{Fuel Cost} \times \text{UPW}^*}{\text{Equipment Efficiency}}$$

Where:

Total Annual Coil Load=the total heating or cooling annual coil load calculated under paragraph (c)(1);

Fuel Cost=the heating or cooling fuel cost calculated in accordance with sections 3.3.D and 3.3.E of the User's Manual;

UPW* = the uniform present worth discount factor; selected from the last page of the compliance forms.

Equipment Efficiency = the test seasonal efficiency rating of the heating and cooling equipment only (i.e., not including duct or distribution system losses).

(3) Estimating the discounted energy cost for water heating and refrigerator/freezer energy consumption—

(i) For equipment types covered by the COSTSAFR compliance forms, by multiplying the estimated unit energy cost by 100; or

(ii) For equipment types not covered by COSTSAFR—

Discounted Energy Cost=

$$\frac{\text{Annual Energy Consumption} \times \text{Fuel Cost} \times \text{UPW}^*}{\text{Energy Factor}}$$

Where:

Fuel Cost and UPW* are as defined in paragraph (c)(2) of this section; Annual Energy Consumption is as calculated in 10 CFR 430.22; and Energy Factor is the measure of energy efficiency as calculated under 10 CFR 430.22

(iii) [Reserved]

(4) Adding together the discounted energy costs calculated under paragraphs (c)(2) and (c)(3) of this section;

(d) If the discounted energy cost of the proposed building design calculated under paragraph (c)(4) of this section is equal to or less than the discounted energy cost of the COSTSAFR prototype building design calculated under paragraph (b) of this section, then the proposed building design is in compliance with the applicable energy consumption goal under this part.

6. Section 435.306 is added as follows:

§ 435.306 Selecting a life cycle effective proposed building design.

In selecting between or among proposed building designs which comply with the applicable energy consumption goal under this part, each Federal agency shall select the design which, in comparison to the applicable COSTSAFR prototype, has the highest Net Savings or lowest total life cycle costs calculated in compliance with subpart A of 10 CFR part 438.

[FR Doc. 91-2083 Filed 1-30-91; 8:45 am]

BILLING CODE 6450-01-M

FEDERAL RESERVE SYSTEM

12 CFR Parts 207, 220, 221 and 224

[Regulations G, T, U and X]

Securities Credit Transactions; List of Marginable OTC Stocks; List of Foreign Margin Stocks

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final rule; determination of applicability of regulations.

SUMMARY: The List of Marginable OTC Stocks (OTC List) is comprised of stocks traded over-the-counter (OTC) in the United States that have been determined by the Board of Governors of the Federal Reserve System to be subject to the margin requirements under certain Federal Reserve regulations. The List of Foreign Margin Stocks (Foreign List) represents all foreign equity securities that have met the Board's eligibility criteria under Regulation T. The OTC List and the Foreign List are published four times a year by the Board. This document sets forth additions to or deletions from the previous OTC List. There are no additions to or deletions from the previous Foreign List. Both Lists were published on November 1, 1990 (55 FR 46040) and effective on November 13, 1990.

EFFECTIVE DATE: February 11, 1991.

FOR FURTHER INFORMATION CONTACT: Peggy Wolfrum, Securities Regulation Analyst, Division of Banking Supervision and Regulation, (202) 452-2781, Board of Governors of the Federal Reserve System, Washington, DC 20551. For the hearing impaired only, Dorothea Thompson, Telecommunications Device for the Deaf (TDD) (202) 452-3544.

SUPPLEMENTARY INFORMATION: Listed below are additions to or deletions from the OTC List. This supersedes the last OTC List which was effective November 13, 1990. Additions and deletions to the OTC List were last published on November 1, 1990 (55 FR 46040). A copy of the complete OTC List is available from the Federal Reserve Banks.

The OTC List includes those stocks that meet the criteria in Regulations G, T and U (12 CFR parts 207, 220 and 221, respectively). This determination also affects the applicability of Regulation X (12 CFR part 224). These stocks have the degree of national investor interest, the depth and breadth of market, and the availability of information respecting the stock and its issuer to warrant regulation in the same fashion as exchange-traded securities. The OTC