Guidelines and Procedures for Implementation of Executive Order on Seismic Safety

Charles W.C. Yancey
Joseph Greenberg

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
National Engineering Laboratory
Center for Building Technology
Gaithersburg, MD 20899

January 1988

Prepared for use by:
Interagency Committee on Seismic Safety in Construction

Sponsored by:
Federal Emergency Management Agency
Washington, DC 20472
GUIDELINES AND PROCEDURES FOR IMPLEMENTATION OF EXECUTIVE ORDER ON SEISMIC SAFETY

Charles W.C. Yancey
Joseph Greenberg

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
National Engineering Laboratory
Center for Building Technology
Gaithersburg, MD 20899

January 1988

Prepared for use by:
Interagency Committee on Seismic Safety in Construction

Sponsored by:
Federal Emergency Management Agency
Washington, DC 20472
ABSTRACT

The "Earthquake Hazards Reduction Act of 1977," Public Law 95-125, was passed by Congress to foster the reduction of life and property risks from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. A proposed Executive Order on Seismic Safety has been drafted that would implement the provisions of the Act by requiring Federal preparedness and mitigation activities to be implemented. The required activities would include the development and promulgation of specifications, building standards, design criteria, and construction practices for new and existing buildings and lifelines.

The guidelines and procedures described herein have been prepared to support the implementation of the Executive Order on Seismic Safety. It is intended that these guidelines and procedures support the efforts of those agencies that will have to establish risk-assessment and corrective action programs to bring them into compliance with the requirements of Public Law 95-125.

It is recommended that each agency concerned with buildings and lifeline that are Federally owned, leased, assisted, or regulated designate an individual or an operating unit as the Agency Seismic Coordinator. It would be the responsibility of the Agency Seismic Coordinator to coordinate all aspects of the agency seismic safety program.

Key Words; Agency Seismic Coordinator; buildings; earthquake hazard; Executive Order on Seismic Safety; Federal agencies; lifelines; seismic safety.
1.0 INTRODUCTION

The "Earthquake Hazards Reduction Act of 1977" (Public Law 95-125) was promulgated by Congress to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. A proposed Executive Order has been drafted by the Interagency Committee on Seismic Safety in Construction (ICSSC) that would implement the provisions of the Act by requiring Federal preparedness and mitigation activities to be implemented. Mitigation activities would include "development and promulgation of specifications, building standards, design criteria, and construction practices for new and existing structures." The act also requires the examination of alternative provisions and requirements for reducing earthquake hazards through Federal and Federally financed construction, loans, loan guarantees, and licenses.

A copy of the draft Executive Order on Seismic Safety, along with a chart showing an overview of the requirements of the Executive Order are included in Appendix A of this document.

The guidelines and procedures described herein have been prepared to support the implementation of the Executive Order on Seismic Safety. It is acknowledged that some of the Federal agencies affected by the Executive Order already have well established earthquake hazards reduction programs and do not require additional guidelines to assist in the implementation of the provisions of the above mentioned act. It is intended that these guidelines and procedures support the efforts of those agencies that will have to establish risk-assessment and corrective action programs to bring them into compliance with the requirements of Public Law 95-125.

2.0 SCOPE

The scope of these implementation guidelines and procedures parallels the scope of the Executive Order on Seismic Safety. Included are: (a) new and existing Federally-owned buildings and lifelines; (b) building spaces leased for Federal occupancy; (c) Federal Domestic Assistance programs for buildings and lifelines; and; (d) Federally-regulated buildings and lifelines. These recommendations are aimed at program administrators and agency personnel who are or will be responsible for administering, writing and revising rules, regulations, policies and procedures to mitigate earthquake hazards.

3.0 RESPONSIBLE FOCAL POINT

To assure adequate implementation of the Executive Order on Seismic Safety, it is recommended that each agency concerned with buildings and lifelines that are Federally owned, leased, assisted, or regulated designate an individual as the Agency Seismic Coordinator. The Agency Seismic Coordinator would be assigned the responsibility of coordinating all aspects of the agency seismic safety program. It is recognized that some agencies already have one or more persons or in some cases an operating unit assigned the responsibility of coordinating seismic safety activities as they pertain to buildings and lifelines. Such existing assignments are considered consistent with the concept of each agency having a responsible focal point for its seismic safety
activities. In other cases, the assignment of an Agency Seismic Coordinator will constitute an additional set of duties. As warranted, the Agency Seismic Coordinator may also serve as the agency's representative to the Interagency Committee on Seismic Safety in Construction (ICSSC). The Agency Seismic Coordinator should: (1) be cognizant of all agency building and lifeline programs falling under the scope of the Executive Order; (2) participate in developing agency seismic safety implementation plans; (3) monitor the execution and results of the agency's efforts in upgrading seismic safety; (4) recommend seismic safety programmatic changes, as required; (5) document the agency's rationale and results regarding risk analysis and cost effectiveness studies which form the basis for the agency's seismic safety decisions; (6) act as a focal point for the agency in maintaining necessary seismic safety records, documents, and statistical information, and (7) provide those reports to the Federal Emergency Management Agency, as required by Section 5 of the Executive Order.

4.0 IMPLEMENTATION PROCEDURES

Program implementation procedures are described below for the respective building and lifeline categories.

4.1 NEW AND EXISTING FEDERALLY OWNED BUILDINGS AND LIFELINES

4.1.1 Scope of Application

Section 1 of the Executive Order on Seismic Safety defines a building as a structure, fully or partially enclosed, used or intended for sheltering persons or property. A lifeline is a system providing the functions of a public utility or transportation facility (electrical power and communications; oil and gas pipelines; transportation facilities; dams; and water and sewage facilities). New buildings and lifelines initiated subsequent to the issuance of the Executive Order are to be designed and constructed in accordance with appropriate seismic design and construction standards as specified by the Executive Order [Section 1a; 1c]. For existing Federal buildings and lifelines, an earthquake risk assessment program shall be established and a mitigation program developed to schedule and correct those risks deemed unacceptable [Section 1b; 1d]. Existing Federal buildings do not include buildings acquired through foreclosure or similar action and intended to be resold or transferred to a new Federal entity [Section 1b]. All construction of new Federal buildings and lifelines affected by the Executive Order on Seismic Safety shall be constructed in accordance with the appropriate seismic design and construction standards as specified by the Executive Order [Section 3a].

4.1.2 Program Implementation

The Agency Seismic Coordinator should coordinate the review of pertinent

1Sections shown in brackets refer to sections of the Executive Order. Refer to Appendix A for Draft Executive Order.
procurement documents (i.e. specifications, design and as-built drawings, and calculations) to assure consistency with the seismic safety requirements of the Executive Order.

Existing Federally-owned buildings and lifelines under the purview of the agency should be inventoried and a methodology should be adopted or developed to assist in the evaluation of their earthquake resistance and to define acceptable levels for earthquake resistance. The agency's performance criteria should include definitions of acceptable levels of safety and what constitutes excessive risk.

The results of the agency's building and lifeline seismic review should be documented and the documentation maintained by the Agency Seismic Coordinator. Adequately safe buildings and lifelines will be so identified. The buildings and lifelines posing excessive risks should be rank-ordered as to risk and consequences and an implementation plan developed to bring these buildings and lifelines up to an acceptable level of earthquake resistance. The Agency Seismic Coordinator should monitor the building and lifeline upgrading plan and be cognizant of the upgrading schedule and status. Those buildings and lifelines which, for any reason, cannot be made adequately safe should be identified for removal from service. Documentation obtained during the evaluation process and a summary of the decision-making process should be filed with the Agency Seismic Coordinator.

4.1.3. Reporting

The Agency Seismic Coordinator should use building and lifeline census data, documentation, and other information supplied by the agency to prepare reports relating the seismic safety status of the agency's Federally-owned buildings and lifelines. These reports should become a part of the agency's seismic safety report that may be requested by the Federal Emergency Management Agency in accordance with Section 5 of the Executive Order.

4.2 SPACE LEASED FOR FEDERAL OCCUPANCY

4.2.1. Scope of Application

Section 2.a of the Executive Order pertains to both new construction built by a non-Federal organization for lease to a Federal agency for a specific term and existing buildings that are being leased for Federal occupancy.

4.2.2 Program Implementation

According to Section 2.a.1 of the Executive Order, a Federal agency arranging for the construction of a privately-owned building for eventual lease to the Government for Federal occupancy shall specify that the building be constructed according to a set of seismic safety requirements that are at least equivalent to those that would be specified for a new Federally-owned building. Local building codes determined to be acceptable by the Federal agency shall be used and augmented when necessary to achieve appropriate seismic design standards.
Design and construction information regarding new non-Federally-owned buildings constructed for lease to the Federal Government should be reviewed and maintained by the Agency Seismic Coordinator.

According to Section 2.a.2 of the Executive Order, seismic safety shall be included in the criteria for selecting among alternative leasing spaces in existing buildings. It is understood that the sites of existing buildings may vary over a broad spectrum, ranging from those localities where buildings are fully compliant with requisite seismic safety standards to areas where none of the buildings meets the Federal seismic standards because the local codes have inadequate or no seismic safety requirements. In implementing the Executive Order for selecting existing buildings to be leased for Federal occupancy, the agency should indicate its degree of compliance with the intent of the Executive Order by documenting its building selection process, including the factors considered and the weighting applied to the factors. Information regarding the seismic safety of leased buildings for Federal occupancy should be reviewed and maintained by the Agency Seismic Coordinator.

4.2.3. Reporting

The Agency Seismic Coordinator should use building census data, documentation, and other information supplied by the agency to prepare reports relating the seismic safety status of the agency’s leased space in non-Federally-owned buildings. These reports should become a part of the agency’s seismic safety report that may be requested by the Federal Emergency Management Agency in accordance with Section 5 of the Executive Order.

4.3 FEDERAL DOMESTIC ASSISTANCE PROGRAMS

4.3.1. General

Federal Domestic Assistance Programs are generally in the form of grants, loans, and loan guarantees. Definitive programs are listed in the publication "Catalog of Federal Domestic Assistance, 1985." Definitions of the specific types of assistance have been extracted by the authors from the catalog and are presented in Appendix B of these guidelines. Selected portions of the index of the catalog of Federal Domestic Assistance Programs are also presented in Appendix B to assist in identifying programs with possible earthquake-related components.

The following procedures apply to those Federal Domestic Assistance Programs which may be covered by the scope of Section 2.b of the Executive Order on Seismic Safety.

4.3.2. Determination of Applicability

Agencies providing grants, loans, and loan guarantees under Federal Domestic Assistance should first review each of their existing programs to determine the applicability of the Executive Order to the programs. New Federal Domestic Assistance programs, as well as previously evaluated programs that
are substantially changed, should subsequently be evaluated against the agency's applicability criteria.

Federal Domestic Assistance programs that clearly have no construction component for buildings or lifelines may be classified as "NON-APPLICABLE - NON CONSTRUCTION" and a list of such programs should be provided to the Agency Seismic Coordinator for review and maintenance.

Federal Domestic Assistance programs which have a construction component for buildings or lifelines should be further evaluated for priority ranking in accordance with the Executive Order, using degree of seismic hazard, human and functional risk elements and property cost considerations in the ranking criteria. Those programs in which the main thrust of the Federal domestic assistance is non-construction-oriented yet contain a minor building or lifeline construction component may be classified "NON-APPLICABLE - LOW RISK ASSESSMENT" after evaluation and documentation. An example might be a program that provides support in the form of a grant to upgrade educational opportunities for children attending school in rural one-room school houses. The grant might underwrite the cost of teacher education, book purchases, visual aid resources, and building renovation. Because this would not be primarily a construction grant and if the agency would consider the risk of loss from an earthquake to be small, the applicability determination for this program would be classified "NON-APPLICABLE - LOW RISK ASSESSMENT". A list of potentially non-applicable, low risk programs, along with the appropriate documentation should be submitted to the Agency Seismic Coordinator for review and certification of evaluation status.

Some Federal Domestic Assistance Programs for buildings and lifelines are specifically excluded by virtue of Section 2.b of the Executive Order. These include repairs and renovations to existing buildings and lifelines where the remodeling costs are equal to or less than 50% of the fair market value of the existing building or lifeline prior to the occurrence of an earthquake. Also, on loan guarantees for existing buildings, the Executive Order is not applicable in certain cases, as the seismic safety provisions are not intended to be a condition for transfer of Federally-insured mortgages from the present owner to a new owner. After review, those assistance programs which clearly are excluded from the Executive Order shall be classified "NON-APPLICABLE - EXECUTIVE ORDER EXCEPTION." A list of these programs, along with any applicable documentation, should be reviewed, certified, and maintained by the Agency Seismic Coordinator.

All other Federal Domestic Assistance programs would be classified "APPLICABLE" and subject to rank-ordering with respect to potential earthquake losses. A list of the "Applicable Federal Domestic Assistance programs, along with their seismic safety ranking should be submitted to the Agency Seismic Coordinator for review, certification and maintenance. Then, a planning effort should be conducted by the agency in cooperation with the Agency Seismic Coordinator to develop a detailed implementation plan.

In the seismic safety evaluation of its "Applicable" Federal Domestic Assistance programs, the agency should assign the classification of "APPLICABLE - EXEMPT" to those programs not likely to sustain substantial earthquake losses due to
the mitigating conditions such as: a) an acceptable level of seismic safety incorporated in the building or lifeline construction, b) the low seismic hazard for the area in which the programs are implemented, c) the invulnerable location of the building or lifeline or d) the non-critical nature of the function housed by the building or lifeline. This classification indicates that the agency should not have to make or implement any additional mitigation plans for the programs included therein. Complete documentation of the ranking process should be submitted to the Agency Seismic Coordinator for review and confirmation.

4.3.3. **Program Implementation**

Each agency should implement the Executive Order as it applies to its Federal Domestic Assistance programs as identified under the Determination of Applicability. Included in the implementation program should be a determination of the seismic hazards in various areas of the country as shown in American National Standards Institute Standard A58, Minimum Design Loads for Buildings and Other Structures, 1982, or subsequent maps adopted for Federal use. For those agencies that do not have the staff resources or budget to determine local building code equivalency in implementing the Executive Order, the Code Equivalency Document (see Section 4.3.4 of these Guidelines) may be used. Where the document indicates that no local codes exist or that the local codes contain no seismic provisions appropriate to the area, a nationally-recognized model code may be cited as a requirement for the grant, loan, or loan guarantee [Section 3.a]. Considering the mission of the agency and the resources available to monitor compliance, the agency should make reasonable attempts to assure compliance after all risks are assessed.

4.3.4 **Code Equivalency Document**

To aid in the implementation of the Executive Order, the Interagency Committee on Seismic Safety on Construction(ICSSCC) should be responsible for the preparation of a Code Equivalency Document. This document should use standards identified in Section 3 of the Executive Order. The document would identify, by State, the building-code-enforcement jurisdiction. It should also contain details about local seismic requirements, on a county-by-county basis, including information such as:

1. Those areas of the United States where no seismic requirements are necessary. This list will generally include those areas falling in Seismic Zone 0.

2. Those areas of the United States which have adopted local codes that substantially meet the requirements cited in Section 3.a of the Executive Order.

3. For those areas not included in subparagraphs 1. and 2. above, the code or codes generally in use and recognized as being adequate for that area of the United States will be listed. This listing is to aid those agencies which do not have the technical resources to certify that a code equivalency requirement, with regard to seismic provisions, has been satisfied before making Federal
grants, loans, or loan guarantees. An agency, however, would not be bound by this listing of equivalent codes and would have the option of identifying other acceptable equivalent codes.

In developing the Code Equivalency Document, the ICSSC should use information furnished by those agencies that have established the equivalency of their seismic standards to the requirements of the Executive Order. Each agency, however, shall have the option to recognize this equivalency on a case-by-case basis. The Code Equivalency Document should be reviewed periodically by the ICSSC and updated as needed.

4.3.5. Reporting

The Agency Seismic Coordinator should use data, documentation and other information supplied by the agency to prepare seismic safety status reports on the various Federal Domestic Assistance programs under the agency’s purview. These reports should become a part of the agency’s seismic safety report that may be requested by the Federal Emergency Management Agency in accordance with Section 5 of the Executive Order.

4.4 FEDERALLY REGULATED BUILDINGS AND LIFELINES

4.4.1. General

Section 2.c of the Executive Order on Seismic Safety requires that Federal agencies responsible for regulating structural safety of buildings and lifelines specify the use of appropriate seismic design and construction standards for new buildings and lifelines. Highest priority shall be given to those buildings and lifelines in areas of high seismic hazard that by virtue of their function, location, or type of construction provide the highest potential for earthquake loss.

4.4.2. Program Implementation

The potentially affected agencies should review all of their regulatory programs to determine which, if any, are covered by the Executive Order. As a general guideline, all regulatory programs involving design and/or construction of buildings or lifelines should be subject to further evaluation. Those programs determined to be covered by the Executive Order should then be rank-ordered in accordance with Section 2.c of the Executive Order. The agency should require the licensees to conduct a systematic program for assessing earthquake risks. It should be the function of the Agency Seismic Coordinator to confirm the list of covered programs and to assure a repository for all of the appurtenant documentation. Moreover, the Agency Seismic Coordinator should review and obtain the agency’s concurrence with the licensees’ assessment program. As a conclusion to the risk-assessment program, the licensees should submit to the Agency Seismic Coordinator a schedule for the correction of mutually-agreed upon excessive risks.
Where, for some compelling reason, the above-mentioned requirements are impossible to meet, the licensee may formally request a waiver from the requirements. The waiver request should be accompanied by a well-documented explanation for the request. The Agency Seismic Coordinator should serve as liaison in the review process. If the agency grants a waiver to the licensee, the agency should fully document its decision-making process and provide a complete set of documentation to the Agency Seismic Coordinator for review and concurrence.

4.4.3. **Reporting**

The Agency Seismic Coordinator should use data, documentation, and other information supplied by the agency to prepare reports relating the seismic safety status of Federally-regulated buildings and lifelines under the agency’s purview. These reports should become a part of the agency’s seismic safety report that may be requested by the Federal Emergency Management Administration in accordance with Section 5 of the Executive Order.
<table>
<thead>
<tr>
<th>FEDERALLY OWNED BUILDINGS &amp; LIFELINES</th>
<th>FEDERALLY LEASED, ASSISTED OR REGULATED STRUCTURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW FEDERAL BUILDINGS</td>
<td>EXISTING FEDERAL BUILDINGS</td>
</tr>
<tr>
<td><strong>DEFINED</strong> (1)</td>
<td><strong>NEW FEDERAL BUILDINGS</strong> (1)</td>
</tr>
<tr>
<td>Structure fully or partially enclosed, constructed in accordance with appropriate correction of excessive risks involved in the assessment</td>
<td>Design and initiate risk</td>
</tr>
<tr>
<td>and or intended to be designed and constructed in accordance with the appropriate correction of excessive risks involved in the assessment</td>
<td>Is a factor in the design and construction of structures and buildings</td>
</tr>
<tr>
<td></td>
<td>and construction in accordance with the appropriate correction of excessive risks involved in the assessment</td>
</tr>
<tr>
<td></td>
<td>Seismic Safety is a factor in the design and construction of structures and buildings</td>
</tr>
<tr>
<td></td>
<td>and construction in accordance with the appropriate correction of excessive risks involved in the assessment</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| | | | | | | | | |...
Appendix A

PROPOSED EXECUTIVE ORDER

Seismic Safety of Federal and Federally Assisted or Regulated Construct

This order is issued by virtue of the authority vested in me by the Constitution and statutes of the United States of America, and as President of the United States of America, in furtherance of the National Earthquake Hazards Reduction Act of 1977, as amended (42 U.S.C. 7701 et seq.), which requires that Federal preparedness and mitigation activities are to include "development and promulgation of specifications, building standards, design criteria, and construction practices to achieve appropriate earthquake resistance for new and existing structures," and "an examination of alternative provisions and requirements for reducing earthquake hazards through Federal and federally financed construction, loans, loan guarantees, and licenses."

Section 1. Requirements for Earthquake Safety of Federal Buildings and Lifelines

The purposes of these requirements are to reduce risks to the lives of occupants of buildings owned by the Federal Government and to persons who would be affected by the failures of Federal buildings or lifelines in earthquakes, to improve the capability of essential Federal buildings and lifelines to function during or after an earthquake, and to reduce earthquake losses of public property, all in a cost-effective manner. A building means any structure, fully or partially enclosed, used or intended for sheltering persons or property. A lifeline means a system providing the functions of a public utility or transportation facility (electrical power and communications, oil and gas pipelines, transportation facilities, dams, and water and sewage facilities).

1.a New Federal Buildings

Each Federal agency responsible for the design and construction of each new Federal building shall ensure that the building is designed and constructed in accord with appropriate seismic design and construction standards. This requirement pertains to all building projects for which development of detailed plans and specifications is initiated subsequent to the issuance of the order. Seismic design and construction standards shall be adopted for agency use in accord with sections 3.a and 4.a of this order.
Section 1. continued

1.b Existing Federal Buildings

Each Federal agency having primary responsibility for ensuring the safety of existing Federal buildings shall plan, and shall initiate no later than three years subsequent to the issuance of this order, a systematic program for the assessment of earthquake-induced risks and for the determination and correction of excessive risks. Standards for the assessment, design and construction activities shall be adopted for agency use in accord with sections 3.a and 4.a of this order. The program shall give priority attention to areas of high seismic hazard and to buildings that by virtue of their occupancy or structural characteristics provide the highest potential for earthquake losses. As used in this section, "existing Federal building" does not include a building acquired by a Federal agency through foreclosure, deed in lieu of foreclosure, or similar action, and intended to be resold or transferred to a non-Federal entity.

1.c New Federal Lifelines

Each Federal agency responsible for the design and construction of each new Federal lifeline shall ensure that the lifeline is designed and constructed in accord with appropriate seismic design and construction standards. This requirement pertains to all lifeline projects for which development of detailed plans and specifications is initiated subsequent to the issuance of the order. Seismic design and construction standards shall be adopted for agency use in accord with sections 3.a and 4.a of this order.

1.d Existing Federal Lifelines

Each Federal agency having primary responsibility for ensuring the safety of existing Federal lifelines shall plan, and shall initiate no later than three years subsequent to the issuance of this order, a systematic program for the assessment of earthquake-induced risks and for the determination and correction of excessive risks. Standards for the assessment, design and construction activities shall be adopted for agency use in accord with sections 3.a and 4.a of this order. The program shall give priority attention to areas of high seismic hazard and to lifelines that by virtue of their nature, location, and/or type of construction provide the highest potential for earthquake losses.
Section 2. Federally Leased, Assisted or Regulated Buildings and Lifelines

The purposes of these requirements are to reduce risks to the lives of occupants of buildings leased for Federal uses or purchased or constructed with Federal assistance, to reduce risks to the lives of persons who would be affected by earthquake failures of federally assisted or regulated buildings and lifelines, and to protect public investments, all in a cost-effective manner.

2.a Space Leased for Federal Occupancy

2.a.1 Each Federal agency responsible for the construction and lease of a new or substantially improved building for Federal use shall ensure that the building is designed and constructed in accord with appropriate seismic design and construction standards. This requirement pertains to all leased building projects for which the agreement covering development of detailed plans and specifications is effected subsequent to the issuance of this order. Local building codes shall be used in design and construction by those concerned with such activities in accord with section 3.a of this order, and augmented when necessary to achieve appropriate seismic design and construction standards.

2.a.2 Each Federal agency responsible for the leasing or renewal of leasing of space for Federal use in an existing building shall, for leases or renewals effected subsequent to the issuance of this order, make seismic safety one of the factors to be considered in the selection among alternative spaces for leasing.

2.b Federal Domestic Assistance Programs

Each Federal agency assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance programs, of newly constructed or acquired buildings or lifelines shall plan, and shall initiate no later than three years subsequent to the issuance of this order, measures consistent with section 3.a of this order, to assure appropriate consideration of seismic safety. Programs shall give priority attention to areas of high seismic hazard and buildings or lifelines that by virtue of their nature, location or type of construction provide the highest potential for earthquake losses. This section shall not apply to the financing of an existing one-to four-unit dwelling or to the financing of an existing
Section 2. continued

condominium or cooperative dwelling unit. This section shall apply to grant, loans, or loan guarantees for repairing or renovating existing buildings or lifelines only when the cost of repairing or renovating exceeds fifty percent of the fair market value before repairing or renovating of the existing building or lifeline.

2.c Federally Regulated Buildings and Lifelines

Each Federal agency with generic responsibility for regulating the structural safety of buildings or lifelines shall plan, and shall initiate no later than three years subsequent to the issuance of this order, to require use of appropriate seismic design and construction standards for new buildings or lifelines within the agency's purview, and to require entities regulated by agencies to conduct a systematic program for assessing earthquake-induced risks and scheduling the correction of excessive risks. Programs shall give priority attention to areas of high seismic hazard and to buildings or lifelines that by virtue of their nature, location or type of construction provide the highest potential for earthquake losses.

Section 3. Concurrent Requirements

3.a In accord with Office of Management and Budget Circular A-119 of January 17, 1980, entitled, "Federal Participation in the Development and Use of Voluntary Standards," nationally recognized private sector standards and practices shall be used for the purposes identified in sections 1 and 2 above unless the responsible agency finds that none is available meeting its requirements. The actions ordered herein shall consider the seismic hazards in various areas of the country to be as shown in American National Standards Institute Standard A58, Minimum Design Loads for Buildings and Other Structures, 1982 or subsequent maps adopted for Federal use in accord with this order. Local building codes determined by the responsible agency or by the Interagency Committee for Seismic Safety in Construction to provide adequately for seismic safety, or special seismic standards and practices required by unique agency mission needs may be used.

3.b All orders, regulations, circulars or other directives issued, and all other actions taken prior to the date of this order that meet the requirements of this order are hereby confirmed and ratified and shall be deemed to have been issued under this order.
Section 3. continued

3.c Nothing in this order shall apply to assistance provided for emergency work essential to save lives and protect property and public health and safety, performed pursuant to Sections 305 and 306 of the Disaster Relief Act of 1974 (88 Stat, 148 and 149 42 U.S.C. 5145 and 5146), or for individual and family grants and temporary housing assistance programs performed pursuant to Sections 404 and 408 of the Disaster Relief Act of 1974 (88 Stat, 154, 42 U.S.C. 5174 and 88 Stat, 156, 42 U.S.C. 5178). Furthermore, this order shall apply to other provisions of the same act only after a Presidentially-declared major disaster or emergency resulting from an earthquake when actions are determined to be cost effective or when damages exceed fifty percent of the fair market value of a building.

Section 4. Responsibilities

4.a The Director, Federal Emergency Management Agency (FEMA), shall be responsible for reporting to the President on the execution of this order and providing support for the secretariat of the Interagency Committee on Seismic Safety in Construction (ICSSC). The ICSSC, using consensus procedures, shall be responsible to FEMA for the recommendation for adoption of seismic design and construction standards and practices required by Sections 1 and 2 of this order. Participation in ICSSC shall be open to all agencies with programs affected by this order. However, seismic design and construction guidelines for dams shall be as developed by the Interagency Committee on Dam Safety as part of the Dam Safety Program.

4.b As allowed by law, each agency shall issue or amend existing regulations or procedures to comply with this order within three years of its issuance, and plan for their implementation through its usual budget process. Thereafter, each agency shall review, at a period not to exceed three years, its regulations or procedures to assess the need to incorporate new or revised standards and practices.

Section 5. Reporting

The Federal Emergency Management Agency shall request, from each agency affected by this order, information on the status of its procedures, progress in its implementation plan and the impact of this order on its operations. FEMA shall include assessment of the execution of this order in its annual report of the National Earthquake Hazards Reduction Program to Congress.
Appendix A

COMMENTARY ON PROPOSED EXECUTIVE ORDER

Seismic Safety of Federal and Federally Assisted or Regulated Construction

The title is chosen to describe the objectives and scope of the proposed executive order, but to leave its legislative history to the preamble.

The legislative background for the proposed order and its objectives are presented. The proposed order defines actions to meet requirements of the National Earthquake Hazards Reduction Act of 1977. The only new responsibility is to develop and begin systematic efforts in three years, and this is new only for agencies that have not yet responded to the Act. Each agency alone is responsible for its actions in response to the proposed order. It is not the intent of the order to place new requirements on agencies that already have acted to meet the requirements of the National Earthquake Hazards Reduction Program (NEHRP).

Section 1. Requirement for Earthquake Safety of Federal Buildings and Lifelines

General definitions are given for buildings and lifelines. More specific definitions are appropriate to the standards that will be used to implement the order. The scope explicitly includes dam safety. Section 4.a assigns the Interagency Committee on Dam Safety the responsibility for developing dam safety guidelines, and gives responsibility for other standards and practices to the Interagency Committee on Seismic Safety in Construction. Cost effectiveness is cited as a criterion for seismic safety practices and programs. There is no complete safety. Seismic safety should be consistent among various building types, materials and locations, and consistent with safety from other hazards to life and property.
1.a New Federal Buildings

Responsibility for design and construction standards is assigned to the Federal agency responsible for the building. As noted in section 3.a, national standards are encouraged and adequate local codes may be used. Section 3.a does not require use of local codes because they may be deficient or unduly restrictive. The requirements of this section become effective upon issuance of the order for projects entering the stage of development of detailed plans and specifications.

1.b Existing Federal Buildings

Each Federal agency is given the responsibility for its own systematic programs of assessment and correction of excessive risks. The agency would give priority attention to situations of potentially high seismic hazard, define its own criteria for excessive risks (with the opportunity for cooperation in this through Interagency Committee on Seismic Safety in Construction, section 4.a), and omit from assessment buildings that by their occupancy, location or type of construction have been shown to provide small seismic risks.

1.c New Federal Lifelines

Seismic safety practices are required for new Federal lifelines for which development of detailed plans and specifications begins after issuance of this order. Use of national standards or agency-specific practices is allowed by reference to section 3.a.

1.d Existing Federal Lifelines

Each Federal agency is given the responsibility for its own systematic program of assessment and correction of excessive risks. The agency would give priority attention to situations of potentially high seismic hazard, define its own criteria for excessive risks (with the opportunity for cooperation in this through Interagency Committee on Seismic Safety in Construction and Interagency Committee on Dam Safety, section 4.a), and omit from assessment lifelines that by their nature, location or type of construction have been shown to provide small seismic risks.

Section 2. Federally Leased, Assisted or Regulated Buildings and Lifelines

Risks and cost effectiveness are cited as criteria for the actions. Again, seismic safety should be consistent among various building and lifeline types, materials and locations, and consistent with safety from other hazards to life and property.
COMMENTARY ON PROPOSED EXECUTIVE ORDER

2.a Space Leased for Federal Occupancy

Safety equivalent to that for new Federal buildings is required for whole buildings constructed and leased for Federal occupancy, but it is recognized that such buildings will be constructed primarily in accord with local codes. However, special provisions are required when local codes are deficient in seismic safety.

Seismic safety is only "a factor," among others, in the selection from among the existing buildings or spaces in existing buildings available for leasing.

2.b Federal Domestic Assistance Programs

This section is not intended to require assessment of the seismic safety of an existing home as a condition for transfer of a Federally insured mortgage from the present owner to a new owner. This section applies to grants, loans or loan guarantees for remodeling existing buildings, or renovating existing lifelines only when the cost of remodeling or renovation exceeds fifty percent of the fair market value of the building or lifeline.

2.c Federally Regulated Buildings and Lifelines

This section applies only to regulatory programs regulating for structural safety of buildings or lifelines, and places responsibilities on the licensees for design and construction of new buildings or lifelines, and assessment and correction of existing buildings or lifelines.

Section 3. Concurrent Requirements

3.a - In accord with OMB Circular A-119, nationally recognized voluntary standards are to be used when they meet an agency's programmatic requirements. A nationally-applicable seismic hazard map is cited to give specificity to earthquake hazards. The seismic hazard map of the Uniform Building Code is deemed equivalent in areas in which the Uniform Building Code is used. Local building codes may be used when they meet the safety levels of standards developed or adopted for Federal agencies.

3.b - This section is not intended to place additional requirements on Federal agencies, but to avoid losses of existing authorities.
COMMENTARY ON PROPOSED EXECUTIVE ORDER

Section 4. Responsibilities

This section provides for cooperation among Federal agencies, (through the Interagency Committee on Seismic Safety in Construction and the Interagency Committee on Dam Safety), using consensus procedures, to recommend for adoption seismic design and construction standards for Federal use.

Each agency is given the responsibility for its own seismic safety practices. A three-year cycle is established for review and update of such practices.

Section 5. Reporting

This section imposes no new reporting requirements on the Federal agencies, but gives FEMA the responsibility to assess and report on the effectiveness of this order.
APPENDIX B - FEDERAL DOMESTIC ASSISTANCE PROGRAMS

Definitions of Specific Types of Assistance

a. Formula Grants - Allocations of money to States or their subdivisions in accordance with a distribution formula prescribed by law or administrative regulation, for activities of a continuing nature not confined to a specific project.

b. Project Grants - The funding, for fixed or known periods, of specific projects or the delivery of specific services or products without liability for damages for failure to perform. Project grants include fellowships, scholarships, research grants, training grants, traineeships, experimental and demonstration grants, evaluation grants, planning grants, technical assistance grants, survey grants, construction grants, and unsolicited contractual agreements.

c. Direct Payments for Specified Use - Financial assistance from the Federal government provided directly to individuals, private firms, and other private institutions to encourage or subsidize a particular activity by conditioning the receipt of the assistance on a particular performance by the recipient. This does not include solicited contracts for the procurement of goods and services for the Federal government.

d. Direct Payments With Unrestricted Use - Financial assistance from the Federal government provided directly to beneficiaries who satisfy Federal eligibility requirements with no restrictions being imposed on the recipient as to how the money is spent. Included are payments under retirement, pension, and compensation programs.

e. Direct Loans - Financial assistance provided through the lending of Federal monies for a specific period of time, with a reasonable expectation of repayment. Such loans may or may not require the payment of interest.

f. Guaranteed/Insured Loans - Programs in which the Federal government makes an arrangement to indemnify a lender against part or all of any defaults by those responsible for repayment of loans.

g. Insurance - Financial assistance provided to assure reimbursement for losses sustained under specified conditions. Coverage may be provided directly by the Federal government or through private carriers and may or may not involve the payment of premiums.

h. Sale, Exchange, or Donation of Property and Goods - Programs which provide for the sale, exchange or donation of Federal real property, personal property, commodities, and other goods including land, buildings, equipment, food and drugs. This does not include the loan of, use of, or access to Federal facilities or property.
i. Use of Property, Facilities, and Equipment - Programs which provide for the loan of, use of, or access to Federal facilities or property wherein the federally-owned facilities or property do not remain in the possession of the recipient of the assistance.

j. Provision of Specialized Services - Programs which provide Federal personnel to directly perform certain tasks for the benefit of communities or individuals. These services may be performed in conjunction with nonfederal personnel, but they involve more than consultation, advice, or counseling.

k. Advisory Services and Counseling - Programs which provide Federal specialists to consult, advise, or counsel communities or individuals, to include conferences, workshops, or personal contacts. This may involve the use of published information, but only in a secondary capacity.

l. Dissemination of Technical Information - Programs which provide for the publication and distribution of information or data of a specialized technical nature frequently through clearinghouses or libraries. This does not include conventional public information services designed for general public consumption.

m. Training - Programs which provide instructional activities conducted directly by a Federal agency for individuals not employed by the Federal government.

n. Investigation of Complaints - Federal administrative agency activities that are initiated in response to requests, either formal or informal, to examine or investigate claims of violations of Federal statutes, policy, or procedure. The origination of such claims must come from outside the Federal government.

o. Federal Employment - Programs which reflect the government-wide responsibilities of the Office of Personnel Management in the recruitment and hiring of Federal civilian agency personnel.
Appendix B

CATALOG OF FEDERAL DOMESTIC ASSISTANCE - 1985
AGENCY PROGRAM INDEX
PROGRAMS WITH POSSIBLE EARTHQUAKE RELATED COMPONENTS

DEPARTMENT OF AGRICULTURE
10.056 Storage Facilities and Equipment Loans ........................................ 1
10.209 1890 Research Facilities ......................................................... 1
10.404 Emergency Loans ........................................................................ 1
10.405 Farm Labor Housing Loans and Grants ......................................... 2
10.407 Farm Ownership Loans ................................................................ 2
10.410 Very Low and Low Income Housing Loans .................................... 2
10.415 Rural Rental Housing Loans ......................................................... 3
10.417 Very Low-Income Housing Repair Loans and Grants ...................... 3
10.418 Water and Waste Disposal Systems for Rural Communities ........... 3
10.422 Business and Industrial Loans ..................................................... 4
10.423 Community Facilities Loans ........................................................ 4
10.665 Schools and Roads - Grants to States ............................................ 4
10.666 Schools and Roads - Grants to Counties ........................................ 4
10.850 Rural Electrification Loans and Loan Guarantees ......................... 4
10.851 Rural Telephone Loans and Loan Guarantees ............................... 5
10.852 Rural Telephone Bank Loans ....................................................... 5
10.904 Watershed Protection and Flood Prevention ................................... 5

DEPARTMENT OF COMMERCE
11.300 Economic Development - Grants for Public Works and Development Facilities ................................................................. 6
11.301 Economic Development - Business Development Assistance ......... 6
11.304 Economic Development - Public Works Impact Projects ............... 6
11.550 Public Telecommunications Facilities .......................................... 6

DEPARTMENT OF DEFENSE
12.102 Flood Control Works and Federally Authorized Coastal Protection Works, Rehabilitation ......................................................... 7
12.106 Flood Control Projects ............................................................... 7
12.400 Military Construction, Army National Guard ................................ 7

DEPARTMENT OF HEALTH AND HUMAN SERVICES
13.224 Community Health Centers ........................................................ 8
13.333 General Clinical Research Centers .............................................. 8
13.389 Research Centers in Minority institutions ..................................... 8
13.392 Cancer Construction .................................................................... 9
13.633 Special Programs for the Aging - Title III, Parts A and B - Grants for Supportive Services and Senior Centers ................................................. 9
13.663 Community Development Credit Union Revolving Loan Fund .......... 9
13.664 Rural Development Loan Fund .................................................... 10
13.665 Community Services Block Grant ............................................... 10
13.676 Surplus Property Utilization ......................................................... 11
13.965 Coal Miners Respiratory Impairment Treatment Clinics and Services ................................................................. 11
13.985 Eye Research - Facility Construction ........................................... 11
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

14.103 Interest Reduction Payments - Rental and Cooperative Housing for Lower Income Families .......... 12
14.108 Rehabilitation Mortgage Insurance ........................................ 12
14.110 Manufactured Home Insurance - Financing Purchase of Manufactured Homes as Principal Residences of Borrowers ......................... 12
14.112 Mortgage Insurance - Construction or Substantial Rehabilitation of Condominium Projects ........ 12
14.115 Mortgage Insurance - Development of Sales Type Cooperative Projects ........................................ 13
14.116 Mortgage Insurance - Group Practice Facilities .......................... 13
14.117 Mortgage Insurance - Homes ........................................ 13
14.119 Mortgage Insurance - Homes for Disaster Victims ...................... 13
14.120 Mortgage Insurance - Homes for Low and Moderate Income Families ........................................ 13
14.121 Mortgage Insurance - Homes in Outlying Areas ......................... 13
14.122 Mortgage Insurance - Homes in Urban Renewal Areas ................. 14
14.123 Mortgage Insurance - Housing in Older, Declining Areas .............. 14
14.124 Mortgage Insurance - Investor Sponsored Cooperative Housing ....... 14
14.125 Mortgage Insurance - Land Development .................................. 14
14.126 Mortgage Insurance - Management Type Cooperative Projects ........ 14
14.127 Mortgage Insurance - Manufactured (Mobile) Home Parks .............. 15
14.128 Mortgage Insurance - Hospitals ........................................ 15
14.129 Mortgage Insurance - Nursing Homes and Intermediate Care Facilities ........................................ 15
14.130 Mortgage Insurance - Purchase by Homeowners of Fee Simple Title From Lessors .......................... 15
14.132 Mortgage Insurance - Purchase of Sales-Type Cooperative Housing Units ........................................ 15
14.133 Mortgage Insurance - Purchase of Units in Condominiums .............. 16
14.134 Mortgage Insurance - Rental Housing ...................................... 16
14.135 Mortgage Insurance - Rental Housing for Moderate Income Families ........................................ 16
14.137 Mortgage Insurance - Rental and Cooperative Housing for Moderate Income Families, Market Interest Rate ........................................ 16
14.138 Mortgage Insurance - Rental Housing for the Elderly ................. 17
14.139 Mortgage Insurance - Rental Housing in Urban Renewal Areas .......... 17
14.140 Mortgage Insurance - Special Credit Risks ................................ 17
14.141 Nonprofit Sponsor Assistance Program ...................................... 17
14.142 Property Improvement Loan Insurance for Improving All Existing Structures and Building of Nonresidential Structures ........................................ 18
14.149 Rent Supplements - Rental Housing for Lower Income Families ........ 18
14.151 Supplemental Loan Insurance - Multifamily Rental Housing ........... 18
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.155</td>
<td>Mortgage Insurance for the Purchase or Refinancing of Existing Multifamily Housing Projects</td>
</tr>
<tr>
<td>14.156</td>
<td>Lower Income Housing Assistance Programs</td>
</tr>
<tr>
<td>14.157</td>
<td>Housing for the Elderly or Handicapped</td>
</tr>
<tr>
<td>14.159</td>
<td>Section 245 Graduated Payment Mortgage Program</td>
</tr>
<tr>
<td>14.161</td>
<td>Single Family Home Mortgage Coinsurance</td>
</tr>
<tr>
<td>14.162</td>
<td>Mortgage Insurance - Combination and Manufactured Home Lot Loans</td>
</tr>
<tr>
<td>14.163</td>
<td>Mortgage Insurance - Cooperative Financing</td>
</tr>
<tr>
<td>14.164</td>
<td>Operating Assistance for Troubled Multifamily Housing Projects</td>
</tr>
<tr>
<td>14.165</td>
<td>Mortgage Insurance - Homes - Military Impacted Areas</td>
</tr>
<tr>
<td>14.166</td>
<td>Mortgage Insurance - Homes for Members of the Armed Services</td>
</tr>
<tr>
<td>14.167</td>
<td>Mortgage Insurance - Two Year Operating Loss Loans, Section 223(d)</td>
</tr>
<tr>
<td>14.170</td>
<td>Congregate Housing Services Program</td>
</tr>
<tr>
<td>14.172</td>
<td>Mortgage Insurance - Growing Equity Mortgages</td>
</tr>
<tr>
<td>14.173</td>
<td>Section 223(f) - Coinsurance for the Purchase or Refinancing of Existing Multifamily Projects</td>
</tr>
<tr>
<td>14.174</td>
<td>Housing Development Grants</td>
</tr>
<tr>
<td>14.175</td>
<td>Adjustable Rate Mortgages</td>
</tr>
<tr>
<td>14.176</td>
<td>Section 221(d) Coinsurance for the Construction or Substantial Rehabilitation of Multifamily Housing Projects</td>
</tr>
<tr>
<td>14.218</td>
<td>Community Development Block Grants/Entitlement Grants</td>
</tr>
<tr>
<td>14.219</td>
<td>Community Development Block Grants/Small Cities Program</td>
</tr>
<tr>
<td>14.220</td>
<td>Section 312 Rehabilitation Loans</td>
</tr>
<tr>
<td>14.221</td>
<td>Urban Development Action Grants</td>
</tr>
<tr>
<td>14.223</td>
<td>Indian Community Development Block Grant Program</td>
</tr>
<tr>
<td>14.228</td>
<td>Community Development Block Grants/State's Program</td>
</tr>
<tr>
<td>14.230</td>
<td>Rental Housing Rehabilitation</td>
</tr>
<tr>
<td>14.507</td>
<td>Mortgage Insurance - Experimental Homes</td>
</tr>
<tr>
<td>14.508</td>
<td>Mortgage Insurance - Experimental Projects Other Than Housing</td>
</tr>
<tr>
<td>14.509</td>
<td>Mortgage Insurance - Experimental Rental Housing</td>
</tr>
<tr>
<td>14.850</td>
<td>Public and Indian Housing</td>
</tr>
<tr>
<td>14.851</td>
<td>Low Income Housing - Homeownership Opportunities for Low Income Families</td>
</tr>
<tr>
<td>14.852</td>
<td>Public and Indian Housing - Comprehensive Improvement Assistance Program</td>
</tr>
</tbody>
</table>

DEPARTMENT OF THE INTERIOR

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.501</td>
<td>Indian Loans - Economic Development</td>
</tr>
<tr>
<td>15.141</td>
<td>Indian Housing Assistance</td>
</tr>
<tr>
<td>15.501</td>
<td>Distribution System Loans</td>
</tr>
<tr>
<td>15.503</td>
<td>Small Reclamation Projects</td>
</tr>
<tr>
<td>15.904</td>
<td>Historic Preservation Grants-In-Aid</td>
</tr>
<tr>
<td>15.912</td>
<td>National Historic Landmark</td>
</tr>
<tr>
<td>15.918</td>
<td>Disposal of Federal Surplus Real Property for Parks, Recreation, and Historic Monuments</td>
</tr>
</tbody>
</table>
DEPARTMENT OF TRANSPORTATION

20.106 Airport Improvement Program ........................................ 28
20.205 Highway Planning and Construction .................................... 28
20.309 Railroad Rehabilitation and Improvement -
    Guarantee of Obligations .................................................. 28
20.310 Railroad Rehabilitation and Improvement -
    Redeemable Preference Shares or Notes ................................ 29
20.500 Urban Mass Transportation Capital Improvement
    Grants .................................................................................. 29
20.600 State and Community Highway Safety ................................. 29

DEPARTMENT OF THE TREASURY

21.300 State and Local Government Fiscal Assistance -
    Revenue Sharing ...................................................................... 30

APPALACHIAN REGIONAL COMMISSION

23.002 Appalachian Supplements to Federal Grant-In-
    Aid (Community Development) .................................................. 31
23.003 Appalachian Development Highway System ......................... 31
23.004 Appalachian Health Programs ............................................ 31
23.005 Appalachian Housing Project Planning Loan,
    Technical Assistance Grant and Site Development
    and Off-Site Improvement Grant: State
    Appalachian Housing Program .............................................. 31
23.008 Appalachian Local Access Roads ....................................... 32

GENERAL SERVICES ADMINISTRATION

39.002 Disposal of Federal Surplus Real Property .......................... 33

SMALL BUSINESS ADMINISTRATION

59.006 Minority Business Development - Procurement
    Assistance ............................................................................. 34
59.008 Physical Disaster Loans ................................................... 34
59.012 Small Business Loans ...................................................... 34
59.013 State and Local Development Company Loans .................... 34
59.021 Handicapped Assistance Loans ....................................... 34
59.030 Small Business Energy Loans .......................................... 35
59.038 Veterans Loan Program ................................................... 35

VETERANS ADMINISTRATION

64.005 Grants to States for Construction of State
    Home Facilities ......................................................................... 36
64.106 Specially Adopted Housing for Disabled Veterans ............... 36
64.114 Veterans Housing - Guaranteed and Insured Loans ............. 37
64.118 Veterans Housing - Direct Loans for Disabled
    Veterans .................................................................................. 37
64.119 Veterans Housing - Manufactured Home Loans .................. 37

ENVIRONMENTAL PROTECTION AGENCY

66.418 Construction Grants for Wastewater Treatment
    Works ...................................................................................... 38
66.603 Loan Guarantees for Construction of Treatment
    Works ...................................................................................... 38
FEDERAL EMERGENCY MANAGEMENT AGENCY
03.504 Other State and Local Direction, Control and Warning ............................................. 39
03.504 State Disaster Preparedness Grants ................................................................. 39
03.506 Earthquake and Hurricane Preparedness Grants ................................................. 39
03.510 Shelter Development ................................................................................................ 39
03.512 State and Local Emergency Operating Centers ...................................................... 40
03.513 State and Local Warning and Communication Systems ........................................ 40
03.516 Disaster Assistance .................................................................................................... 40

DEPARTMENT OF EDUCATION
04.020 Handicapped Regional Resource Centers ................................................................. 41
04.040 School Assistance in Federally Affected Areas - Construction ............................. 41
04.142 Housing for Educational Institutions ....................................................................... 41
04.145 Federal Real Property Assistance Program ............................................................. 41
04.154 Library Services and Construction Act - Construction ........................................ 42
04.155 Removal of Architectural Barriers to the Handicapped ......................................... 42
04.172 Construction, Reconstruction, and Renovation of Academic Facilities .................. 42

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD
08.001 Architectural and Transportation Barriers Compliance Board ............................... 43
### 10.056 Storage Facilities and Equipment Loans
**Federal Agency:** Agricultural Stabilization and Conservation Service, Department of Agriculture

**Objectives:** To complement the commodity loan and grain reserve programs by providing financing for needed onfarm storage facilities, thereby allowing farmers the opportunity for orderly marketing of their crops.

<table>
<thead>
<tr>
<th>Buildings</th>
<th>Grants</th>
<th>Direct Loans</th>
<th>Loan Guar.</th>
<th>Lifelines</th>
</tr>
</thead>
</table>
| **Uses and Use Restrictions:** The loans are used to finance the purchase of storage structures and to remodel existing grain storage facilities. To qualify for loans the farmers must meet the need eligibility requirements for storing one or more of the following commodities: barley, corn, grain sorghum, oats, wheat, and rice. Soybeans are eligible also on farms participating in the wheat or feed grain acreage reduction program. The maximum loan amount is $25,000. A producer's aggregate outstanding loan balance cannot exceed $25,000 unless the producer is participating in the grain reserve program at the time of application, then the aggregate may be increased but cannot exceed $50,000. Repayment terms allow for a maximum of 4 equal annual installments over a period of 5 years. Interest rate charged on facility loans will be based on the rate charged CCC by the U.S. Treasury during the month the loan is disbursed.

### 10.209 Research Facilities
**Federal Agency:** Cooperative State Research Service, Department of Agriculture

**Objectives:** To assist in the acquisition and improvement of research facilities and equipment.

<table>
<thead>
<tr>
<th>Lifelines</th>
</tr>
</thead>
</table>
| **Uses and Use Restrictions:** Money appropriated pursuant to Public Law 97-98, Section 1433, shall be used for the purchase of equipment and land, and the planning, construction, alteration or renovation of buildings to strengthen their capacity to conduct research in the food and agricultural sciences.

### 10.404 Emergency Loans
**Federal Agency:** Farmers Home Administration, Department of Agriculture

**Objectives:** To assist farmers, ranchers, and aquaculture operators with loans to cover losses resulting from natural disasters; provide annual production loans for borrowers who were indebted for emergency loans on December 13, 1979, for up to six full calendar years after the disaster; to enable the disaster victims to recover from their losses and return to conventional credit; under certain conditions, refinance secured and unsecured debts made necessary by the disaster; finance adjustments in the farming, ranching, or aquaculture operations determined necessary to restore or maintain applicants on a sound financial basis equivalent to their prediaster potential. The total amount of all loans for all purposes must not exceed the applicant's repayment ability. The total of all actual loss loans is based on actual dollar value of production and physical losses, and they will be for: (1) disasters occurring on and after October 1, 1978, through September 30, 1981, all actual loss loans are made at 5 percent interest with a maximum limit of $900,000 per disaster. (2) disasters occurring on and after October 1, 1981, all actual loss loans up to $100,000 are at 5 percent interest and any amount over $100,000 is at an 8 percent interest rate, with a maximum limit of $300,000 per disaster. Any additional financing above the value of actual losses will be at a market rate of interest as established periodically by the Secretary of Agriculture. Applicants who suffered losses from disasters occurring after July 2, 1980, and who can obtain credit elsewhere may receive a loan(s) for actual losses only, at a market rate of interest based on the cost of Government.
Guidelines and Procedures for Implementation of Executive Order on Seismic Safety

Charles W.C. Yancey, Joseph Greenberg

NATIONAL BUREAU OF STANDARDS
U.S. DEPARTMENT OF COMMERCE
GAITHERSBURG, MD 20899

Federal Emergency Management Agency, Washington, DC 20472

The "Earthquake Hazards Reduction Act of 1977," Public Law 95-125, was passed by Congress to foster the reduction of life and property risks from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. A proposed Executive Order on Seismic Safety has been drafted that would implement the provisions of the Act by requiring Federal preparedness and mitigation activities to be implemented. The required activities would include the development and promulgation of specifications, building standards, design criteria, and construction practices for new and existing buildings and lifelines.

The guidelines and procedures described herein have been prepared to support the implementation of the Executive Order on Seismic Safety. It is intended that these guidelines and procedures support the efforts of those agencies that will have to establish risk-assessment and corrective action programs to bring them into compliance with the requirements of Public Law 95-125.

It is recommended that each agency concerned with buildings and lifeline that are Federally owned, leased, assisted, or regulated designate an individual or an operating unit as the Agency Seismic Coordinator. It would be the responsibility of the Agency Seismic Coordinator to coordinate all aspects of the agency seismic safety program.

Agencies Seismic Coordinator; buildings; earthquake hazard; Executive Order on Seismic Safety; Federal agencies; lifelines; seismic safety

Unlimited

Document describes a computer program; SF-185, FIPS Software Summary, is attached.

The 200-word or less factual summary of most significant information, if this document includes a significant bibliography or literature survey, mention it here.

The "Earthquake Hazards Reduction Act of 1977," Public Law 95-125, was passed by Congress to foster the reduction of life and property risks from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. A proposed Executive Order on Seismic Safety has been drafted that would implement the provisions of the Act by requiring Federal preparedness and mitigation activities to be implemented. The required activities would include the development and promulgation of specifications, building standards, design criteria, and construction practices for new and existing buildings and lifelines.

The guidelines and procedures described herein have been prepared to support the implementation of the Executive Order on Seismic Safety. It is intended that these guidelines and procedures support the efforts of those agencies that will have to establish risk-assessment and corrective action programs to bring them into compliance with the requirements of Public Law 95-125.

It is recommended that each agency concerned with buildings and lifeline that are Federally owned, leased, assisted, or regulated designate an individual or an operating unit as the Agency Seismic Coordinator. It would be the responsibility of the Agency Seismic Coordinator to coordinate all aspects of the agency seismic safety program.

Agency Seismic Coordinator; building; earthquake hazard; Executive Order on Seismic Safety; Federal agencies; lifelines; seismic safety