

quired to conform with the specifications set forth in such criteria); and

(2) enter into contracts with a number of persons or firms for the procurement of solar heating components and systems meeting such performance criteria (including adequate numbers of spare and replacement parts for such systems).

**(d) Installation of heating systems; operation during demonstration period; title and ownership of dwellings and systems; agreement of owner to observe and monitor system for five years; reports by owner**

The Secretary shall (1) arrange for the installation of solar heating systems procured by the Administrator under subsection (c)(2) of this section in a substantial number of residential dwellings and (2) provide for the satisfactory operation of such installations during the demonstration period. Title to and ownership of any dwellings constructed hereunder and of solar heating systems installed hereunder may be conveyed to purchasers or owners of such dwellings under terms and conditions prescribed by the Secretary, including an express agreement that any such purchaser or owner shall, in such manner and form and on such terms and conditions as the Secretary may prescribe, observe and monitor (or permit the Secretary to observe and monitor) the performance and operation of such system for a period of five years, and that such purchaser or owner (including any subsequent owner and occupant of the property who also makes such an agreement) shall regularly furnish the Secretary with such reports thereon as the agreement may require.

**(e) Installation of heating systems by Secretary of Defense in dwellings located on Federal or federally administered property**

The Secretary of Defense shall arrange for the installation of solar heating systems procured by the Administrator under subsection (c)(2) of this section in a substantial number of residential dwellings which are located on Federal or federally administered property where the performance and operation of such systems can be regularly and effectively observed and monitored by designated Federal personnel.

**(f) Coordination of activities to assure a realistic and effective demonstration**

The Secretary and the Secretary of Defense, and officials responsible for administering Federal or federally administered property, shall coordinate their activities under this section to assure that solar heating systems are installed in a substantial number of residential dwellings and in a sufficient number of different geographic areas under varying climatic conditions to constitute a realistic and effective demonstration in support of the objectives of this subchapter.

(Pub. L. 93-409, § 5, Sept. 3, 1974, 88 Stat. 1070; Pub. L. 93-438, title I, § 104(f), title III, § 301(h), Oct. 11, 1974, 88 Stat. 1238, 1250; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 100-418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

CODIFICATION

In subsec. (c), “subchapter II of chapter 201 of title 51” substituted for “title II of the National Aeronautics and Space Act of 1958” on authority of Pub. L. 111-314, § 5(e), Dec. 18, 2010, 124 Stat. 3443, which Act enacted Title 51, National and Commercial Space Programs.

AMENDMENTS

1988—Subsec. (b)(1), (2). Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “National Bureau of Standards”.

TRANSFER OF FUNCTIONS

“Secretary of Energy” substituted for “Director”, meaning Director of National Science Foundation, in subsec. (b)(1) pursuant to sections 104(f) and 301(h) of Pub. L. 93-438, which are classified to sections 5814(f) and 5871(h) of this title and which transferred functions of National Science Foundation relating to or utilized in connection with solar heating and cooling development to Administrator of Energy Research and Development Administration, and pursuant to sections 301(a), 703, and 707 of Pub. L. 95-91, which are classified to sections 7151(a), 7293, and 7297 of this title and which terminated Energy Research and Development Administration and transferred its functions and functions of Administrator thereof (with certain exceptions) to Secretary of Energy.

**§ 5504. Development and demonstration of combined solar heating and cooling systems for use in residential dwellings**

**(a) Functions of Administrator and Secretary**

The Administrator and the Secretary shall promptly initiate and carry out a program, as provided in this section, for the development and demonstration of combined solar heating and cooling systems (including collectors, controls, and thermal storage) for use in residential dwellings.

**(b) Time for determination, prescription and publishing of interim performance criteria; selection of designs for suitable dwellings**

(1) As soon as possible after September 3, 1974, the Secretary, utilizing the services of the Director of the National Institute of Standards and Technology and in consultation with the Administrator and the Secretary of Energy, shall determine, prescribe, and publish—

(A) interim performance criteria for combined solar heating and cooling components and systems to be used in residential dwellings, and

(B) interim performance criteria (relating to suitability for solar heating and cooling) for such dwellings themselves,

taking into account in each instance climatic variations existing between different geographic areas.

(2) As soon as possible after the publication of the performance criteria prescribed under paragraph (1) (and if possible before the completion of the research and development provided for in subsection (c) of this section), the Secretary, in consultation with the Director of the National Institute of Standards and Technology and the Administrator, will select on the basis of open competition a number of designs for various types of residential dwellings suitable for and adapted to the installation of combined solar heating and cooling systems meeting the per-

formance criteria prescribed under paragraph (1)(A).

**(c) Program of research, development and testing to provide additional technological resources for development and commercial application of combined systems**

During the period immediately following the publication of performance criteria under subsection (b)(1) of this section, the Administrator, in coordination with the Secretary of Energy, shall undertake and conduct with respect to solar heating and cooling a program of research, development, and testing designed to provide the additional technological resources necessary for the development and commercial application of combined solar heating and cooling systems as contemplated by the program under this section.

**(d) Contracts and grants for development of combined systems for commercial production and residential use; contracts for procurement of combined systems**

The Administrator, in accordance with the applicable provisions of subchapter II of chapter 201 of title 51 and under program guidelines established jointly by the Administrator and the Secretary, and at the earliest possible time during or immediately after the period specified in subsection (c) of this section, shall, after consultation with the Secretary—

(1) enter into such contracts and grants as may be necessary or appropriate for the development (for commercial production and residential use) of combined solar heating and cooling systems meeting the performance criteria prescribed under subsection (b)(1)(A) of this section (including any further planning and design which may be required to conform with the specifications set forth in such criteria or to reflect the results of the activities conducted under subsection (c) of this section); and

(2) enter into contracts with a number of persons or firms for the procurement of combined solar heating and cooling systems meeting such performance criteria (including adequate numbers of spare and replacement parts for such systems).

**(e) Installation of combined systems; operation during demonstration period; title and ownership of dwellings and systems; agreement of owner to observe and monitor system; reports by owner**

The Secretary shall (1) arrange for the installation of combined solar heating and cooling systems procured by the Administrator under subsection (d)(2) of this section in a substantial number of residential dwellings and (2) provide for the satisfactory operation of such installations during the demonstration period. Title to and ownership of any dwellings constructed hereunder and of combined solar heating and cooling systems installed hereunder may be conveyed to purchasers or owners of such dwellings under terms and conditions prescribed by the Secretary, including an express agreement that any such purchaser or owner shall, in such manner and form and on such terms and conditions as the Secretary may prescribe, observe and

monitor (or permit the Secretary to observe and monitor) the performance and operation of such system for a period of five years, and that such purchaser or owner (including any subsequent owner and occupant of the property who also makes such an agreement) shall regularly furnish the Secretary with such reports thereon as the agreement may require.

**(f) Installation of combined systems by Secretary of Defense in dwellings located on Federal or federally administered property**

The Secretary of Defense shall arrange for the installation of combined solar heating and cooling systems procured by the Administrator under subsection (d)(2) of this section in a substantial number of residential dwellings which are located on Federal or federally administered property where the performance and operation of such systems can be regularly and effectively observed and monitored by designated Federal personnel.

**(g) Coordination of activities to assure a realistic and effective demonstration**

The Secretary and the Secretary of Defense, and officials responsible for administering Federal or federally administered property, shall coordinate their activities under this section to assure that combined solar heating and cooling systems are installed in a substantial number of residential dwellings and in a sufficient number of geographic areas under varying climatic conditions to constitute a realistic and effective demonstration in support of the objectives of this subchapter.

(Pub. L. 93-409, § 6, Sept. 3, 1974, 88 Stat. 1072; Pub. L. 93-438, title I, § 104(f), title III, § 301(h), Oct. 11, 1974, 88 Stat. 1238, 1250; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 100-418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

CODIFICATION

In subsec. (d), “subchapter II of chapter 201 of title 51” substituted for “title II of the National Aeronautics and Space Act of 1958” on authority of Pub. L. 111-314, § 5(e), Dec. 18, 2010, 124 Stat. 3443, which Act enacted Title 51, National and Commercial Space Programs.

AMENDMENTS

1988—Subsec. (b)(1), (2). Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “National Bureau of Standards”.

TRANSFER OF FUNCTIONS

“Secretary of Energy” substituted for “Director”, meaning Director of National Science Foundation, in subsecs. (b)(1) and (c) pursuant to sections 104(f) and 301(h) of Pub. L. 93-438, which are classified to sections 5814(f) and 5871(h) of this title and which transferred functions of National Science Foundation relating to or utilized in connection with solar heating and cooling development to Administrator of Energy Research and Development Administration, and pursuant to sections 301(a), 703, and 707 of Pub. L. 95-91, which are classified to sections 7151(a), 7293, and 7297 of this title and which terminated Energy Research and Development Administration and transferred its functions and functions of Administrator thereof (with certain exceptions) to Secretary of Energy.

**§ 5504a. Repealed. Pub. L. 96-125, title VIII, § 804(b), Nov. 26, 1979, 93 Stat. 948**

Section, Pub. L. 95-356, title VIII, § 804, Sept. 8, 1978, 92 Stat. 585, related to use of solar energy systems in military construction projects.

**§ 5505. Omitted**

CODIFICATION

Section, Pub. L. 93-409, § 7, Sept. 3, 1974, 88 Stat. 1073, authorized and directed Administrator and Secretary to prepare a comprehensive plan for conduct of development and demonstration activities under section 5503 and 5504, such plan to be transmitted to President and Congress within 120 days after Sept. 3, 1974.

**§ 5506. Test procedures and definitive performance criteria for solar heating and combined solar heating and cooling components and systems and suitable dwellings; determination, consultation and publication in Federal Register**

As soon as feasible, and utilizing data available from the demonstration programs under sections 5503 and 5504 of this title, the Secretary, utilizing the services of the Director of the National Institute of Standards and Technology and in consultation with the Administrator and the Secretary of Energy shall determine, prescribe, and publish in the Federal Register in accordance with the applicable provisions regarding rulemaking prescribed by section 553 of title 5,

(1) definitive performance criteria for solar heating and combined solar heating and cooling components and systems to be used in residential dwellings, taking into account climatic variations existing between different geographic areas;

(2) definitive performance criteria (relating to suitability for solar heating and for combined solar heating and cooling) for such dwellings, taking into account climatic variations existing between different geographic areas; and

(3) procedures whereby manufacturers of solar heating and combined solar heating and cooling components and systems shall have their products tested in order to provide certification that such products conform to the performance criteria established under paragraph (1).

(Pub. L. 93-409, § 8, Sept. 3, 1974, 88 Stat. 1073; Pub. L. 93-438, title I, § 104(f), title III, § 301(h), Oct. 11, 1974, 88 Stat. 1238, 1250; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 100-418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

AMENDMENTS

1988—Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “National Bureau of Standards”.

TRANSFER OF FUNCTIONS

“Secretary of Energy” substituted in text for “Director”, meaning Director of National Science Foundation, pursuant to sections 104(f) and 301(h) of Pub. L. 93-438, which are classified to sections 5814(f) and 5871(h) of this title and which transferred functions of National Science Foundation relating to or utilized in connection with solar heating and cooling development

to Administrator of Energy Research and Development Administration, and pursuant to sections 301(a), 703, and 707 of Pub. L. 95-91, which are classified to sections 7151(a), 7293, and 7297 of this title and which terminated Energy Research and Development Administration and transferred its functions and functions of Administrator thereof (with certain exceptions) to Secretary of Energy.

**§ 5507. Arrangements with Federal agencies for development and demonstration of solar heating and combined heating and cooling systems for commercial buildings**

The Administrator, in consultation with the Secretary, the Secretary of Energy, the Administrator of General Services, and the Director of the National Institute of Standards and Technology and concurrently with the conduct of the programs under sections 5503 and 5504 of this title, shall enter into arrangements with appropriate Federal agencies to carry out such projects and activities (including demonstration projects) with respect to apartment buildings, office buildings, factories, crop-drying facilities and other agricultural structures, public buildings (including schools and colleges), and other non-residential, commercial, or industrial buildings, taking into account the special needs of and individual differences in such buildings based upon size, function, and other relevant factors, as may be appropriate for the early development and demonstration of solar heating and combined solar heating and cooling systems suitable and effective for use in such buildings.

(Pub. L. 93-409, § 9, Sept. 3, 1974, 88 Stat. 1074; Pub. L. 93-438, title I, § 104(f), title III, § 301(h), Oct. 11, 1974, 88 Stat. 1238, 1250; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 100-418, title V, § 5115(c), Aug. 23, 1988, 102 Stat. 1433.)

AMENDMENTS

1988—Pub. L. 100-418 substituted “National Institute of Standards and Technology” for “National Bureau of Standards”.

TRANSFER OF FUNCTIONS

“Secretary of Energy” substituted in text for “Director”, meaning Director of National Science Foundation, pursuant to sections 104(f) and 301(h) of Pub. L. 93-438, which are classified to sections 5814(f) and 5871(h) of this title and which transferred functions of National Science Foundation relating to or utilized in connection with solar heating and cooling development to Administrator of Energy Research and Development Administration, and pursuant to sections 301(a), 703, and 707 of Pub. L. 95-91, which are classified to sections 7151(a), 7293, and 7297 of this title and which terminated Energy Research and Development Administration and transferred its functions and functions of Administrator thereof (with certain exceptions) to Secretary of Energy.

**§ 5508. Program of applied research by Secretary of Energy for improvement and development of heating systems for commercial application; transmission of results to Secretary and Administrator**

(a) The Secretary of Energy shall conduct a program of applied research relevant to (1) the improvement of solar heating components and systems and (2) the development and commercial application of combined solar heating and