

Calendar No. 242

103D CONGRESS
1ST SESSION

S. 656

[Report No. 103-161]

A BILL

To provide for indoor air pollution abatement, including indoor radon abatement, and for other purposes.

OCTOBER 21 (legislative day, OCTOBER 13), 1993

Reported with an amendment

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IN THE SENATE OF THE UNITED STATES

MARCH 25 (legislative day, MARCH 3), 1993

Mr. MITCHELL (for himself, Mr. CHAFEE, Mr. LAUTENBERG, Mr. LIEBERMAN, and Mr. JEFFORDS) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

OCTOBER 21 (legislative day, OCTOBER 13), 1993

Reported by Mr. BAUCUS, with an amendment

[Strike out all after the enacting clause and insert the part printed in italic]

A BILL

To provide for indoor air pollution abatement, including indoor radon abatement, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

4 (a) ~~SHORT TITLE.~~—This Act may be cited as the
5 “~~Indoor Air Quality Act of 1993~~”.

1 (b) TABLE OF CONTENTS.—The table of contents of
2 this Act is as follows:

- See: 1. Short title and table of contents.
- See: 2. Findings.
- See: 3. Purposes.
- See: 4. Definitions.
- See: 5. Indoor air quality research.
- See: 6. Management practices and ventilation standards.
- See: 7. Indoor air contaminant health advisories.
- See: 8. National indoor air quality response plan.
- See: 9. Federal building response plan and demonstration program.
- See: 10. State and local indoor air quality programs.
- See: 11. Office of Indoor Air Quality.
- See: 12. Council on Indoor Air Quality.
- See: 13. Indoor air quality information clearinghouse.
- See: 14. Building assessment demonstration.
- See: 15. State and Federal authority.
- See: 16. Authorization of appropriations.

3 **SEC. 2. FINDINGS.**

4 The Congress finds that—

5 (1) Americans spend up to 90 per centum of a
6 day indoors and, as a result, have a significant po-
7 tential for exposure to contaminants in the air in-
8 doors;

9 (2) exposure to indoor air contamination occurs
10 in workplaces, schools, public buildings, residences,
11 and transportation vehicles;

12 (3) recent scientific studies indicate that pollut-
13 ants in the indoor air include radon, asbestos, vola-
14 tile organic chemicals (including, formaldehyde and
15 benzene), combustion byproducts (including, carbon
16 monoxide and nitrogen oxides), metals and gases
17 (including, lead, chlorine, and ozone), respirable par-

1 ticles, biological contaminants, microorganisms, and
2 other contaminants;

3 (4) a number of contaminants found in both
4 ambient air and indoor air may occur at higher con-
5 centrations in indoor air than in outdoor air;

6 (5) indoor air pollutants pose serious threats to
7 public health (including cancer, respiratory illness,
8 multiple chemical sensitivities, skin and eye irrita-
9 tion, and related effects);

10 (6) up to 15 per centum of the United States
11 population may have heightened sensitivity to chemi-
12 cals and related substances found in the air indoors;

13 (7) radon is among the most harmful indoor air
14 pollutants and is estimated to cause between five
15 thousand and twenty thousand lung cancer deaths
16 each year;

17 (8) other selected indoor air pollutants are esti-
18 mated to cause between three thousand five hundred
19 and six thousand five hundred additional cancer
20 cases per year;

21 (9) indoor air contamination is estimated to
22 cause significant increases in medical costs and de-
23 clines in work productivity;

1 (10) as many as 20 per centum of office work-
2 ers may be exposed to environmental conditions
3 manifested as “sick building syndrome”;

4 (11) sources of indoor air pollution include con-
5 ventional ambient air pollution sources, building ma-
6 terials, consumer and commercial products, combus-
7 tion appliances, indoor application of pesticides and
8 other sources;

9 (12) there is not an adequate effort by Federal
10 agencies to conduct research on the seriousness and
11 extent of indoor air contamination, to identify the
12 health effects of indoor air contamination, and to de-
13 velop control technologies, education programs, and
14 other methods of reducing human exposure to such
15 contamination;

16 (13) there is not an adequate effort by Federal
17 agencies to develop response plans to reduce human
18 exposure to indoor air contaminants and there is a
19 need for improved coordination of the activities of
20 these agencies;

21 (14) there is not an adequate effort by Federal
22 agencies to develop methods, techniques, and proto-
23 cols for assessment of indoor air contamination in
24 non-residential, non-industrial buildings and to pro-

1 vide guidance on measures to respond to contamina-
2 tion; and

3 (15) State governments can make significant
4 contributions to the effective reduction of human ex-
5 posure to indoor air contaminants and the Federal
6 Government should assist States in development of
7 programs to reduce exposures to these contaminants.

8 **SEC. 3. PURPOSE.**

9 The purposes of this title are to—

10 (1) develop and coordinate through the Envi-
11 ronmental Protection Agency and at other depart-
12 ments and agencies of the United States a com-
13 prehensive program of research and development
14 concerning the seriousness and extent of indoor air
15 contamination, the human health effects of indoor
16 air contaminants, and the technological and other
17 methods of reducing human exposure to such con-
18 taminants;

19 (2) establish a process whereby the existing au-
20 thorities of Federal statutes will be directed and fo-
21 cused to assure the full and effective application of
22 these authorities to reduce human exposure to in-
23 door air contaminants where appropriate;

24 (3) provide support to State governments to
25 demonstrate and develop indoor air quality manage-

1 ment strategies, assessments, and response pro-
2 grams; and

3 (4) to authorize activities to assure the general
4 coordination of indoor air quality-related activity, to
5 provide for reports on indoor air quality to Congress,
6 to provide for assessments of indoor air contamina-
7 tion in specific buildings by the National Institute
8 for Occupational Safety and Health, to assure that
9 data and information on indoor air quality issues is
10 available to interested parties, to provide training,
11 education, information, and technical assistance to
12 the public and private sector, and for other pur-
13 poses.

14 **SEC. 4. DEFINITIONS.**

15 For the purposes of this title, the term—

16 (1) “Agency” means the United States Envi-
17 ronmental Protection Agency;

18 (2) “indoor” refers to the enclosed portions of
19 buildings including non-industrial workplaces, public
20 buildings, Federal buildings, school, commercial
21 buildings, residences, and the occupied portions of
22 vehicles;

23 (3) “indoor air contaminant” means any solid,
24 liquid, semisolid, dissolved solid, biological organism,
25 aerosol, or gaseous material, including combinations

1 or mixtures of substances in indoor air which may
2 reasonably be anticipated to have an adverse effect
3 on human health;

4 (4) "Federal agency" or "agency of the United
5 States" means any department, agency or other in-
6 strumentality of the Federal Government, including
7 any independent agency or establishment of the Fed-
8 eral Government or government corporation;

9 (5) "Federal building" means any building
10 which is used primarily as an office building, school,
11 hospital, or residence that is owned, leased, or oper-
12 ated by any Federal agency and is over ten thousand
13 square feet in area, any building occupied by the Li-
14 brary of Congress, the White House and the Vice
15 Presidential residence, and any building that is in-
16 cluded in the definition of Capitol Buildings under
17 section 193m(1) of title 40, United States Code;

18 (6) "Administrator" means the Administrator
19 of the Environmental Protection Agency;

20 (7) "Administration" means the Occupational
21 Safety and Health Administration;

22 (8) "Director" means the Director of the Na-
23 tional Institute of Occupational Safety and Health;

24 (9) "local education agency" means any edu-
25 cational agency as defined in section 198 of the Ele-

1 mentary and Secondary Education Act of 1965 (20
2 U.S.C. 3381); and

3 (10) “local air pollution control agency” means
4 any city, county, or other local government authority
5 charged with the responsibility for implementing
6 programs or enforcing ordinances or laws relating to
7 the prevention and control of air pollution including
8 indoor air pollution.

9 **SEC. 5. INDOOR AIR QUALITY RESEARCH.**

10 (a) **AUTHORITY.**—(1) The Administrator shall, in co-
11 ordination with other appropriate Federal agencies, estab-
12 lish a national research, development, and demonstration
13 program to assure the quality of air indoors and as part
14 of such program shall promote the coordination and accel-
15 eration of research, investigations, experiments, dem-
16 onstrations, surveys, and studies relating to the causes,
17 sources, effects, extent, prevention, detection, and correc-
18 tion of contamination of indoor air.

19 (2) In carrying out the provisions of this section, the
20 Administrator is authorized, subject to the availability of
21 appropriations, to—

22 (A) collect and make available to the public
23 through publications and other appropriate means,
24 the results of research, development and demonstra-
25 tion activities conducted pursuant to this section;

1 (B) conduct research, development and dem-
2 onstration activities and cooperate with other Fed-
3 eral agencies, with State and local government enti-
4 ties, interstate and regional agencies, other public
5 agencies and authorities, nonprofit institutions and
6 organizations and other persons in the preparation
7 and conduct of such research, development and dem-
8 onstration activities;

9 (C) make grants to the States or to local gov-
10 ernment entities, to other public agencies and au-
11 thorities, to nonprofit institutions and organizations,
12 and to other persons;

13 (D) enter into contracts or cooperative agree-
14 ments with public agencies and authorities, non-
15 profit institutions and organizations, and other per-
16 sons;

17 (E) conduct studies, including epidemiological
18 studies, of the effects of indoor air contaminants or
19 potential contaminants on mortality and morbidity
20 and clinical and laboratory studies on the
21 immunologic, biochemical, physiological, and toxi-
22 cological effects including the carcinogenic,
23 teratogenic, mutagenic, cardiovascular, and neuro-
24 toxic effects of indoor air contaminants or potential
25 contaminants;

1 (F) develop and disseminate information docu-
2 ments on indoor air contaminants describing the na-
3 ture and characteristics of such contaminants in var-
4 ious concentrations;

5 (G) develop effective and practical processes,
6 protocols, methods, and techniques for the preven-
7 tion, detection, and correction of indoor air contami-
8 nation and work with the private sector, other gov-
9 ernmental entities, and schools and universities to
10 encourage the development of innovative techniques
11 to improve indoor air quality;

12 (H) construct such facilities and staff and equip
13 them as may be necessary to carry out the provi-
14 sions of this section;

15 (I) call conferences concerning the potential or
16 actual contamination of indoor air giving oppor-
17 tunity for interested persons to be heard and present
18 papers at such conferences;

19 (J) utilize, on a reimbursable basis, facilities
20 and personnel of existing Federal scientific labora-
21 tories and research centers;

22 (K) acquire secret processes, technical data, in-
23 ventions, patent applications, patents, licenses, and
24 an interest in lands, plants, equipment and facilities
25 and other property rights, by purchase, license,

1 lease, or donation. If the Administrator expects or
2 intends that research pursuant to this subsection
3 will primarily affect worker safety and health, he
4 shall consult with the Assistant Secretary of Occupa-
5 tional Safety and Health and the Director; and

6 ~~(L)~~ conduct research, development and dem-
7 onstration activities with nonprofit institutions on
8 the use of indoor foliage as a method to reduce in-
9 door air pollution.

10 ~~(b)~~ PROGRAM REQUIREMENTS.—The Administrator,
11 in coordination with other appropriate Federal agencies,
12 shall conduct, assist, or facilitate research, investigations,
13 studies, surveys, or demonstrations with respect to, but
14 not limited to, the following—

15 ~~(1)~~ the effects on human health of contami-
16 nants or combinations of contaminants at various
17 levels whether natural or anthropogenic including
18 additive, cumulative, and synergistic effects on popu-
19 lations both with and without heightened sensitivity
20 that are found or are likely to be found in indoor
21 air;

22 ~~(2)~~ the exposure of persons to contaminants
23 that are found in indoor air (including exposure to
24 such substances from sources other than indoor air

1 contamination including drinking water, diet, or
2 other exposures);

3 (3) the identification of populations at in-
4 creased risk of illness from exposure to indoor air
5 contaminants and assessment of the extent and
6 characteristics of such exposure;

7 (4) the exposure of persons to contaminants in
8 different building classes or types, and in vehicles,
9 and assessment of the association of particular con-
10 taminants and particular building classes or types
11 and vehicles;

12 (5) identification of building classes or types
13 and design features or characteristics which increase
14 the likelihood of exposure to indoor air contami-
15 nants;

16 (6) identification of the sources of indoor air
17 contaminants including association of contaminants
18 with outdoor sources, building or vehicle design,
19 classes or types of products, building management
20 practices, equipment operation practices, building
21 materials, and related factors;

22 (7) assessment of relationships between con-
23 taminant concentration levels in ambient air and the
24 contaminant concentration levels in the indoor air;

1 (8) development of methods and techniques for
2 characterizing and modeling indoor air movement
3 and flow within buildings or vehicles, including the
4 transport and dispersion of contaminants in the in-
5 door air;

6 (9) assessment of the fate, including degrada-
7 tion and transformation, of particular contaminants
8 in indoor air;

9 (10) development of methods and techniques to
10 characterize the association of contaminants, the lev-
11 els of contaminants, and the potential for contami-
12 nation of new construction with climate, building lo-
13 cation, seasonal change, soil and geologic formations,
14 and related factors;

15 (11) assessment of indoor air quality in facili-
16 ties of local education agencies and buildings hous-
17 ing child care facilities and development of measures
18 and techniques for control of indoor air contamina-
19 tion in such buildings;

20 (12) development of protocols, methods, tech-
21 niques and instruments for sampling indoor air to
22 determine the presence and level of contaminants in-
23 cluding sample collection and the storage of samples
24 before analysis and development of methods to im-
25 prove the efficiency and reduce the cost of analysis;

1 (13) development of air quality sampling meth-
2 ods and instruments which are inexpensive and easy
3 to use and may be used by the general public;

4 (14) development of control technologies, build-
5 ing design criteria, and management practices to
6 prevent the entrance of contaminants into buildings
7 or vehicles (for example, air intake protection, seal-
8 ing, and related measures) and to reduce the con-
9 centrations of contaminants indoor (for example,
10 control of emissions from internal sources of con-
11 tamination, improved air exchange and ventilation,
12 filtration, and related measures);

13 (15) development of materials and products
14 which may be used as alternatives to materials or
15 products which are now in use and which contribute
16 to indoor air contamination;

17 (16) development of equipment and processes
18 for removal of contaminants from the indoor air;

19 (17) research, to be carried out principally by
20 the Occupational Safety and Health Administration
21 and the National Institute for Occupational Safety
22 and Health, for the purpose of assessing—

23 (A) the exposure of workers to indoor air
24 contaminants including assessment of resulting
25 health effects; and

1 ~~(B)~~ the costs of declines in productivity,
2 sick time use, increased use of employer-paid
3 health insurance, and worker compensation
4 claims;

5 ~~(18)~~ research, to be carried out in conjunction
6 with the Secretary of Housing and Urban Develop-
7 ment, and the Secretary of the Department of En-
8 ergy for the purpose of developing—

9 ~~(A)~~ methods for assessing the potential for
10 radon contamination of new construction, in-
11 cluding (but not limited to) consideration of the
12 moisture content of soil, permeability of soil,
13 and radon content of soil; and

14 ~~(B)~~ design measures to avoid indoor air
15 pollution, and

16 ~~(19)~~ research, to be carried out in conjunction
17 with the Secretary of Transportation, for the pur-
18 poses of—

19 ~~(A)~~ assessing the potential for indoor air
20 contamination in public and private transpor-
21 tation; and

22 ~~(B)~~ designing measures to avoid such in-
23 door air contamination.

24 ~~(20)~~ research, to be carried out in consultation
25 with the Administrator for the National Aeronautics

1 and Space Administration, for the purpose of assess-
2 ing the use of indoor foliage as a means to reduce
3 indoor air contamination, including demonstration
4 projects to determine the level of pollutants reduced
5 by indoor plants in buildings.

6 ~~(c) TECHNOLOGY DEMONSTRATION PROGRAM.—(1)~~

7 The Administrator may enter into cooperative agreements
8 or contracts, or provide financial assistance in the form
9 of grants, to public agencies and authorities, nonprofit in-
10 stitutions and organizations, employee advocate organiza-
11 tions, local educational institutions, or other persons, to
12 demonstrate practices, methods, technologies, or processes
13 which may be effective in controlling sources or potential
14 sources of indoor air contamination, preventing the occur-
15 rence of indoor air contamination, and reducing exposures
16 to indoor air contamination.

17 ~~(2) The Administrator may assist demonstration ac-~~
18 ~~tivities under paragraph (1) of this subsection only if—~~

19 ~~(A) such demonstration activity will serve to~~
20 ~~demonstrate a new or significantly improved prac-~~
21 ~~tice, method, technology or process or the feasibility~~
22 ~~and cost effectiveness of an existing, but unproven,~~
23 ~~practice, method, technology, or process and will not~~
24 ~~duplicate other Federal, State, local, or commercial~~

1 efforts to demonstrate such practice, method, tech-
2 nology, or process;

3 ~~(B)~~ such demonstration activity meets the re-
4 quirements of this section and serves the purposes of
5 this Act;

6 ~~(C)~~ the demonstration of such practice, tech-
7 nology, or process will comply with all other laws
8 and regulations for the protection of human health,
9 welfare, and the environment; and

10 ~~(D)~~ in the case of a contract or cooperative
11 agreement, such practice, method, technology, or
12 process would not be adequately demonstrated by
13 State, local, or private persons or in the case of an
14 application for financial assistance by a grant, such
15 practice, method, technology, or process is not likely
16 to receive adequate financial assistance from other
17 sources.

18 ~~(3)~~ The demonstration program established by this
19 subsection shall include solicitations for demonstration
20 projects, selection of suitable demonstration projects from
21 among those proposed, supervision of such demonstration
22 projects, evaluation and publication of the results of dem-
23 onstration projects, and dissemination of information on
24 the effectiveness and feasibility of the practices, methods,

1 technologies and processes which are proven to be effec-
2 tive.

3 (4) Within one hundred and eighty days after the
4 date of enactment of this title, and no less often than every
5 twelve months thereafter, the Administrator shall publish
6 a solicitation for proposals to demonstrate, prototype or
7 at full-scale, practices, methods, technologies, and proc-
8 esses which are (or may be) effective in controlling sources
9 or potential sources of indoor air contaminants. The solici-
10 tation notice shall prescribe the information to be included
11 in the proposal, including technical and economic informa-
12 tion derived from the applicant's own research and devel-
13 opment efforts, and other information sufficient to permit
14 the Administrator to assess the potential effectiveness and
15 feasibility of the practice, method, technology, or process
16 proposed to be demonstrated.

17 (5) Any person and any public or private nonprofit
18 entity may submit an application to the Administrator in
19 response to the solicitations required by paragraph (4) of
20 this subsection. The application shall contain a proposed
21 demonstration plan setting forth how and when the project
22 is to be carried out and such other information as the Ad-
23 ministrator may require.

24 (6) In selecting practices, methods, technologies or
25 processes to be demonstrated, the Administrator shall

1 fully review the applications submitted and shall evaluate
2 each project according to the following criteria—

3 (A) the potential for the proposed practice,
4 method, technology, or process to effectively control
5 sources or potential sources of contaminants which
6 present risks to human health;

7 (B) the consistency of the proposal with the
8 recommendations provided pursuant to paragraph
9 (8) of section 8(d);

10 (C) the capability of the person or persons pro-
11 posing the project to successfully complete the dem-
12 onstration as described in the application;

13 (D) the likelihood that the demonstrated prac-
14 tice, method, technique, or process could be applied
15 in other locations and circumstances to control
16 sources or potential sources of contaminants, includ-
17 ing considerations of cost, effectiveness, and techno-
18 logical feasibility;

19 (E) the extent of financial support from other
20 persons to accomplish the demonstration as de-
21 scribed in the application; and

22 (F) the capability of the person or persons pro-
23 posing the project to disseminate the results of the
24 demonstration or otherwise make the benefits of the

1 practice, method, or technology widely available to
2 the public in a timely manner.

3 ~~(7) The Administrator shall select or refuse to select~~
4 a project for demonstration under this subsection in an
5 expeditious manner. In the case of a refusal to select a
6 project, the Administrator shall notify the applicant of the
7 reasons for the refusal.

8 ~~(8) Each demonstration project under this section~~
9 shall be performed by the applicant, or by a person satis-
10 factory to the applicant, under the supervision of the Ad-
11 ministrator. The Administrator shall enter into a written
12 agreement with each applicant granting the Administrator
13 the responsibility and authority for testing procedures,
14 quality control, monitoring, and other measurements nec-
15 essary to determine and evaluate the results of the dem-
16 onstration project.

17 ~~(9) The Administrator shall enter into agreements,~~
18 wherever practicable and desirable, to provide for monitor-
19 ing testing procedures, quality control, and such other
20 measurements necessary to evaluate the results of dem-
21 onstration projects or facilities intended to control sources
22 or potential sources of contaminants.

23 ~~(10) Each demonstration project under this section~~
24 shall be completed within such time as is established in
25 the demonstration plan. The Administrator may extend

1 any deadline established under this subsection by mutual
2 agreement with the applicant concerned.

3 (11) Total Federal funds for any demonstration
4 project under this section shall not exceed 75 per centum
5 of the total cost of such project. In cases where the Admin-
6 istrator determines that research under this section is of
7 a basic nature which would not otherwise be undertaken,
8 or the applicant is a local educational agency, the Admin-
9 istrator may approve grants under this section with a
10 matching requirement other than that specified in this
11 subsection, including full Federal funding.

12 (12) The Administrator shall, from time to time, pub-
13 lish general reports describing the findings of demonstra-
14 tion projects conducted pursuant to this section. Such re-
15 ports shall be provided to the Indoor Air Quality Informa-
16 tion Clearinghouse provided for in section 13 of this Act.

17 (d) ASSESSMENT OF SCHOOLS AND CHILD CARE FA-
18 CILITIES.—(1) The Administrator shall conduct a national
19 assessment of the seriousness and extent of indoor air con-
20 tamination in buildings owned by local educational agen-
21 cies and child care facilities.

22 (2) The Administrator shall establish an advisory
23 group made up of representatives of school administrators,
24 teachers, child care organizations, parents and service em-
25 ployees and other interested parties, including scientific

1 and technical experts familiar with indoor air pollution ex-
2 posures, effects, and controls, to provide guidance and di-
3 rection in the development of the national assessment.

4 (3) The Administrator shall provide a report to Con-
5 gress of the results of the national assessment not later
6 than two years after the date of enactment of this Act.
7 The report required by this paragraph shall provide such
8 recommendations for activities or programs to reduce and
9 avoid indoor air contamination in buildings owned by local
10 educational agencies and in child care facilities as the Ad-
11 ministrator determines to be appropriate.

12 (e) REPORTS TO CONGRESS.—(1) The Administrator
13 shall, within twenty-four months of the date of enactment
14 of this Act, prepare and submit to the Congress a report
15 reviewing and assessing issues related to chemical sensitiv-
16 ity disorders, including multiple chemical sensitivities. The
17 Advisory Committee established pursuant to section 7(c)
18 of this title shall review and comment on the report prior
19 to submittal to the Congress.

20 (2) The Administrator, in consultation with the Ad-
21 ministrator for the National Aeronautics and Space Ad-
22 ministration, shall submit to the Congress a report on the
23 research program authorized under paragraph (20) of
24 subsection (b) within 2 years of enactment of this Act.

1 (f) CLARIFICATION OF AUTHORITY.—Title IV of the
2 Superfund Amendments and Reauthorization Act of 1986
3 (~~42 U.S.C. 7401~~ note) is repealed.

4 **SEC. 6. MANAGEMENT PRACTICES AND VENTILATION**
5 **STANDARDS.**

6 ~~SEC. 6. (a) TECHNOLOGY AND MANAGEMENT PRACTICE~~
7 ~~ASSESSMENT BULLETINS.—(1) The Administrator~~
8 ~~shall publish bulletins providing an assessment of tech-~~
9 ~~nologies and management practices for the control and~~
10 ~~measurement of contaminants in the air indoors.~~

11 ~~(2) Bulletins published pursuant to this subsection~~
12 ~~shall, at a minimum—~~

13 ~~(A) describe the control or measurement tech-~~
14 ~~nology or practice;~~

15 ~~(B) describe the effectiveness of the technology~~
16 ~~or practice in control or measurement of indoor air~~
17 ~~contaminants and, to the extent feasible, the result-~~
18 ~~ing reduction in risk to human health;~~

19 ~~(C) assess the feasibility of application of the~~
20 ~~technology or practice in buildings of different types,~~
21 ~~sizes, ages, and designs;~~

22 ~~(D) assess the cost of application of the tech-~~
23 ~~nology or practice in buildings of different types,~~
24 ~~sizes, ages, and designs, including capital and oper-~~
25 ~~ational costs; and~~

1 ~~(E)~~ assess any risks to human health that such
2 technology or practice may create.

3 ~~(3)~~ The Administrator shall establish and utilize a
4 standard format for presentation of the technology and
5 management practice assessment bulletins. The format
6 shall be designed to facilitate assessment of technologies
7 or practices by interested parties, including homeowners
8 and building owners and managers.

9 ~~(4)~~ The Administrator shall provide that bulletins
10 published pursuant to this subsection shall be published
11 on a schedule consistent with the publication of health
12 advisories pursuant to section 7(b) of this Act to the ex-
13 tent practicable.

14 ~~(5)~~ In development of bulletins pursuant to this sub-
15 section, the Administrator shall provide for public review
16 and shall consider public comment prior to publication of
17 bulletins. Where the technology or management practice
18 is expected to have significant implications for worker
19 safety or health, the Administrator shall consult with the
20 Director prior to seeking review and comment.

21 ~~(6)~~ Bulletins published pursuant to this subsection
22 shall be provided to the Indoor Air Quality Information
23 Clearinghouse provided for in section 13 of this Act and,
24 to the extent practicable, shall be made available to archi-
25 tecture, design, and engineering firms and building owners

1 and managers and to organizations representing such par-
2 ties.

3 (b) ~~MODEL BUILDING MANAGEMENT PRACTICES~~
4 ~~TRAINING.~~—(1) Within twelve months of the date of en-
5 actment of this Act, the Director of the National Institute
6 of Occupational Safety and Health, in consultation with
7 the Administrator of the General Services Administration
8 and the Administrator, shall develop an indoor air training
9 course providing training in—

10 (A) principles, methods, and techniques related
11 to ventilation system operation and maintenance in-
12 cluding applicable ventilation guidelines and stand-
13 ards;

14 (B) maintenance of records concerning indoor
15 air quality, including maintenance of ventilation sys-
16 tems, complaints of indoor air quality, and actions
17 taken to address indoor air quality problems;

18 (C) health threats posed by indoor air pollut-
19 ants, including a knowledge of health advisories pub-
20 lished pursuant to this title and other information
21 concerning contaminant levels;

22 (D) identification of potential indoor air pollut-
23 ant sources and options for reducing exposures to
24 contaminants;

1 (E) special measures which may be necessary to
2 reduce indoor air contaminant exposures in new
3 buildings and in portions of buildings which have
4 been renovated or substantially refurbished within
5 the past six months; and

6 (F) special measures which may be necessary to
7 reduce exposures to contaminants associated with
8 pesticide applications, installation of products, fur-
9 nishings, or equipment, and cleaning operations.

10 (2) Within twenty-four months of the date of enact-
11 ment of this Act, the Director of the National Institute
12 for Occupational Safety and Health shall provide, or con-
13 tract for the provision of, training courses pursuant to
14 paragraph (1) of this subsection sufficient, at a minimum,
15 to assure training on a schedule consistent with the re-
16 quirements of section 9(f)(2).

17 (3) The Director of the National Institute of Occupa-
18 tional Safety and Health, or firms or organizations operat-
19 ing under contract with such Administrator, are author-
20 ized to establish a fee for training pursuant to this sub-
21 section. Fees shall be in an amount not to exceed the
22 amount necessary to defray the costs of the training pro-
23 gram.

24 (4) The Director of the National Institute of Occupa-
25 tional Safety and Health, in consultation with the Admin-

1 istrator of the General Services Administration, and the
2 Administrator, shall prepare a report to Congress within
3 forty-eight months of the date of enactment of this sub-
4 section assessing the training program pursuant to this
5 subsection and making recommendations concerning the
6 application of training requirements to classes and types
7 of buildings not covered by this subsection.

8 (c) VENTILATION PROGRAM.—(1) The Adminis-
9 trator, in coordination with other Federal agencies, shall
10 conduct a program to analyze the adequacy of existing
11 ventilation standards and guidelines to protect the public
12 and workers from indoor air contaminants.

13 (2) The Administrator shall—

14 (A) identify and describe ventilation standards
15 adopted by State and local governments and profes-
16 sional organizations, including the American Society
17 of Heating, Refrigerating and Air Conditioning En-
18 gineers;

19 (B) determine the adequacy of the standards
20 for protecting public health and promoting worker
21 productivity;

22 (C) assess the costs of compliance with such
23 standards;

24 (D) determine the degree to which such stand-
25 ards are being adopted and enforced;

1 (E) identify the extent to which buildings are
2 being operated in a manner which achieves the
3 standards; and

4 (F) assess the potential for such standards to
5 complement controls over specific sources of con-
6 taminants in reducing indoor air contamination.

7 (3) The Administrator shall submit to the Congress,
8 within thirty-six months of the enactment of this Act a
9 report which shall—

10 (A) describe the ventilation program carried out
11 under this Act; and

12 (B) make recommendations concerning—

13 (i) the establishment of ventilation stand-
14 ards which protect public and worker health
15 and take comfort and energy conservation goals
16 into account; and

17 (ii) ensuring that adequate ventilation
18 standards are being adopted and that buildings
19 are being operated in a manner which achieves
20 the standards.

21 **SEC. 7. INDOOR AIR CONTAMINANT HEALTH ADVISORIES.**

22 (a) LIST OF CONTAMINANTS.—(1) Within two hun-
23 dred and forty days after the date of enactment of this
24 Act, the Administrator shall prepare and publish in the
25 Federal Register a list of the contaminants (hereinafter

1 referred to as listed contaminants) that may occur or are
2 known to occur in indoor air at levels which may reason-
3 ably be expected to have an adverse impact on human
4 health. The list may include combinations or mixtures of
5 contaminants and may refer to such combinations or mix-
6 tures by a common name.

7 (2) The Administrator shall from time to time and
8 as necessary to carry out the provisions of this Act, but
9 not less often than biennially, review and revise such list
10 adding other contaminants pursuant to the requirements
11 of this Act.

12 (3) The list provided for in paragraph (1) of this sub-
13 section shall include, at a minimum: benzene, biological
14 contaminants, carbon monoxide, formaldehyde, lead,
15 methylene chloride, nitrogen oxide, particulate matter, as-
16 bestos, polycyclic aromatic hydrocarbons, (PAHs), and
17 radon.

18 (4) In development of the list provided for in para-
19 graph (1) of this subsection or in revision of such list pur-
20 suant to paragraph (2), the Administrator shall consult
21 with the advisory panel provided for in subsection (c) of
22 this section and provide for public review and shall con-
23 sider public comment prior to issuance of a final list.

24 (5) The listing of contaminants under this subsection
25 is not an agency rulemaking. In considering objections

1 raised in any judicial or related action, the Administra-
2 tor's decision to list a particular contaminant shall be
3 upheld unless the objecting party can demonstrate that
4 the decision was arbitrary or capricious or otherwise not
5 in accordance with the law. The list of contaminants pre-
6 pared in accordance with this subsection shall not be con-
7 strued to indicate that those contaminants not listed are
8 safe for human exposure or without adverse health effect.

9 (6) Upon application of the Governor of a State show-
10 ing that a contaminant or potential contaminant in the
11 indoor air which is not listed pursuant to paragraph (1)
12 of this subsection may reasonably be anticipated to have
13 an adverse effect on human health as a result of its pres-
14 ence in the indoor air, the Administrator shall, within
15 ninety days, revise the list established by paragraph (1)
16 of this subsection to include such contaminant or publish
17 in the Federal Register the reasons for not making such
18 a revision.

19 (b) CONTAMINANT HEALTH ADVISORIES.—(1) The
20 Administrator shall, in consultation with the advisory
21 panel, provided for in subsection (c) of this section, and
22 after providing for public review and comment pursuant
23 to paragraph (6), publish advisory materials addressing
24 the adverse human health effects of listed contaminants.

1 ~~(2)~~ Such advisory materials shall, at a minimum, de-
2 scribe—

3 ~~(A)~~ the physical, chemical, biological, and radio-
4 logical properties of the contaminant;

5 ~~(B)~~ the adverse human health effects of the
6 contaminant in various indoor environments and in
7 various concentrations;

8 ~~(C)~~ and analysis of the risk posed by the con-
9 taminant to human health at the full range of con-
10 centration levels, including risk to subpopulations
11 which may be especially sensitive to exposure to the
12 contaminant;

13 ~~(D)~~ the extent to which the contaminant, or a
14 mixture of contaminants, is associated with a par-
15 ticular substance of material and emissions rates
16 which are expected to result in varying levels of con-
17 taminant concentration in indoor air;

18 ~~(E)~~ any Technology and Management Practice
19 Assessment Bulletin which is applicable to the con-
20 taminant and any actions which are identified for
21 the contaminant in the National Indoor Air Quality
22 Response Plan prepared pursuant to this Act; and

23 ~~(F)~~ any indoor air contaminant standards or
24 related action levels which are in effect under any
25 authority of a Federal statute or regulation, the au-

1 thority of State statutes or regulations, the authority
2 of any local government, or the authority of another
3 country, including standards or action levels sug-
4 gested by appropriate international organizations.

5 (2) Health advisories published pursuant to his sec-
6 tion shall in no way limit or restrict the application of
7 requirements or standards established under any other
8 Federal statute.

9 (3) The Administrator shall establish and utilize a
10 standard format of presentation of indoor air contaminant
11 health advisories. The format shall be designed to facili-
12 tate public understanding of the range of risks of exposure
13 to indoor air contaminants and shall include a summary
14 of the research and information concerning the contami-
15 nant which is understandable to public health profes-
16 sionals and to those who lack training in toxicology.

17 (4) The Administrator shall publish health advisories
18 for listed contaminants as expeditiously as possible. At a
19 minimum, the Administrator shall publish not less than
20 six advisories within eighteen months of the date of enact-
21 ment of this Act and shall publish an additional six
22 advisories within thirty-six months of the date of enact-
23 ment of this Act

24 (5) Health advisories shall be based on the most cur-
25 rent available scientific and related findings or informa-

1 tion and shall be reviewed, revised, and republished to re-
2 flect new scientific and related findings or information on
3 a periodic basis but not less frequently than every five
4 years.

5 (6) In development and revision of health advisories
6 pursuant to this subsection, the Administrator shall pro-
7 vide for public review and comment, including provision
8 of notice in the Federal Register of the intent to publish
9 a health advisory not less than ninety days prior to publi-
10 cation, and shall consider public comment prior to issu-
11 ance of an advisory.

12 (c) ~~ADVISORY PANEL.~~—The Indoor Air Quality and
13 Total Human Exposure Committee of the Environmental
14 Protection Agency Science Advisory Board shall advise the
15 Administrator with respect to the implementation of this
16 section including, but not limited to, the listing of con-
17 taminants, the contaminants for which advisories should
18 be published, the order in which advisories should be pub-
19 lished, the content, quality, and format of advisory docu-
20 ments, and the revision of such documents. The Adminis-
21 trator shall provide that a representative of the Agency
22 for Toxic Substances and Disease Registry, the Depart-
23 ment of Energy Office of Health and Environmental Re-
24 search, the National Institute for Occupational Safety and
25 Health, and the National Institute for Environmental

1 Health Sciences shall participate in the work of the Advi-
2 sory Panel as ex officio members.

3 **SEC. 8. NATIONAL INDOOR AIR QUALITY RESPONSE PLAN.**

4 (a) **AUTHORITY.**—(1) The Administrator shall, in co-
5 ordination with other appropriate Federal agencies, de-
6 velop and publish a national indoor air quality response
7 plan.

8 (2) The response plan shall provide for implementa-
9 tion of a range of response actions identified in sub-
10 sections (b) and (c) which will result in the reduction of
11 human exposure to indoor air contaminants listed pursu-
12 ant to section 7(a) of this Act and attainment, to the full-
13 est extent practicable, of indoor air contaminant levels
14 which are protective of human health.

15 (b) **EXISTING AUTHORITY.**—The Administrator, in
16 coordination with other appropriate Federal agencies,
17 shall include in the plans provided for in subsection (a)
18 of this section a description of specific response actions
19 to be implemented based on existing statutory authorities
20 provided in—

21 (1) the Clean Air Act (42 U.S.C. 7401 et seq.);

22 (2) the Toxic Substances Control Act (15
23 U.S.C. 201 et seq.);

24 (3) the Federal Insecticide, Fungicide, and
25 Rodenticide Act (7 U.S.C. 136 et seq.);

1 (4) the Safe Drinking Water Act (42 U.S.C.
2 300 et seq.);

3 (5) the authorities of the Consumer Product
4 Safety Commission;

5 (6) the authorities of the Occupational Safety
6 and Health Administration and the National Insti-
7 tute for Occupational Safety and Health; and

8 (7) other regulatory and related authorities pro-
9 vided under any other Federal statute.

10 In implementation of response actions pursuant to para-
11 graph (6) of this subsection the Assistant Secretary for
12 Occupational Safety and Health shall consult with rep-
13 resentatives of State and local governments and their em-
14 ployees with respect to States where the Occupational
15 Safety and Health Administration lacks jurisdiction over
16 State and local employees.

17 (c) SUPPORTING ACTIONS.—The Administrator, in
18 coordination with other appropriate Federal agencies,
19 shall include in the plans provided for in subsection (a)
20 of this section a description of specific supporting actions
21 including, but not limited to—

22 (1) programs to disseminate technical informa-
23 tion to public health, design, and construction pro-
24 fessionals concerning the risks of exposure to indoor

1 air contaminants and methods and programs for re-
2 ducing exposures to such contaminants;

3 ~~(2)~~ development of guidance documents ad-
4 dressing individual contaminants, groups of contami-
5 nants, sources of contaminants, or types of buildings
6 or structures and providing information on measures
7 to reduce exposure to contaminants including—

8 (A) the estimated cost of such measures;

9 (B) the technologic feasibility of such
10 measures; and

11 (C) the effectiveness and efficiency of such
12 measures.

13 ~~(3)~~ education programs for the general public
14 concerning the health threats posed by indoor air
15 contaminants and appropriate individual response
16 actions;

17 ~~(4)~~ technical assistance including design and
18 implementation of training seminars for State and
19 local officials, private and professional firms, and
20 labor organizations dealing with indoor air pollution
21 and addressing topics such as monitoring, analysis,
22 mitigation, building management practices, ventila-
23 tion, health effects, public information and program
24 design;

1 (5) development of model building codes, in-
2 cluding ventilation rates, for various types of build-
3 ings designed to reduce levels of indoor air contami-
4 nants;

5 (6) identification of contaminants, or cir-
6 cumstances of contamination for which immediate
7 action to protect public and worker health is nec-
8 essary and appropriate and a description of the ac-
9 tions needed;

10 (7) identification of contaminants, or cir-
11 cumstances of contamination, where regulatory or
12 statutory authority is not adequate to address an
13 identified contaminant or circumstance of contami-
14 nation and recommendation of legislation to provide
15 needed authority;

16 (8) identification of contaminants, or cir-
17 cumstances of contamination, where continued re-
18 duction of contamination requires development of
19 technology or technological mechanisms; and

20 (9) identification of remedies to “sick building
21 syndrome”, including proper design and mainte-
22 nance of ventilation systems, building construction
23 and remodeling practices, and safe practices for the
24 application of pesticides, herbicides, and disinfect-
25 ants, and a standardized protocol for investigating

1 and solving indoor air quality problems in sick build-
2 ings.

3 ~~(d) CONTENTS OF PLAN.~~—In describing specific ac-
4 tions to be taken under subsections ~~(b)~~ and ~~(c)~~ of this
5 section, the Administrator, in coordination with other ap-
6 propriate Federal agencies, shall—

7 (1) identify the health effects, and any contami-
8 nant or contaminants thought to cause health effects
9 to be addressed by a particular action and to the
10 fullest extent feasible, the relative contribution to in-
11 door air contamination from all sources of contami-
12 nation;

13 (2) identify the statutory basis for the action;

14 (3) identify the schedule and process for imple-
15 mentation of the action;

16 (4) identify the Federal agency with jurisdiction
17 for the specific action which will implement the ac-
18 tion; and

19 (5) identify the financial resources needed to
20 implement the specific action and the source of these
21 resources.

22 ~~(e) SCHEDULE.~~—Response plans provided for in sub-
23 section ~~(a)~~ shall be submitted to Congress within twenty-
24 four months of enactment of this title and biennially there-
25 after.

1 (f) REVIEW.—(1) The Administrator shall provide for
2 public review and comment on the response plan provided
3 for in this section, including provision of notice in the Fed-
4 eral Register for public review and comment not less than
5 three months prior to submission to the Congress. The
6 Administrator shall include in the response plan a sum-
7 mary of public comments.

8 (2) The Administrator shall provide for the review
9 and comment on the response plan by the Council on In-
10 door Air Quality provided for under section 12 of this Act.

11 (g) ASSESSMENT OF MONITORING AND MITIGATION
12 SERVICES.—The Administrator shall include in the first
13 plan published pursuant to this section an assessment of
14 indoor air monitoring and mitigation services provided by
15 private firms and other organizations, including the range
16 of such services, the reliability and accuracy of such serv-
17 ices, and the relative costs of such services. The assess-
18 ment required by this subsection shall include a review and
19 analysis of options for oversight of indoor air monitoring
20 and mitigation firms and organizations, including registra-
21 tion, licensing, and certification of such firms and organi-
22 zations and options for imposing a user fee on such firms
23 and organizations.

1 **SEC. 9. FEDERAL BUILDING RESPONSE PLAN AND DEM-**
2 **ONSTRATION PROGRAM.**

3 (a) **AUTHORITY.**—The Administrator and the Admin-
4 istrator of the General Services Administration shall de-
5 velop and implement a program to respond to and reduce
6 indoor air contamination in Federal buildings and to dem-
7 onstrate methods of reducing indoor air contamination in
8 new Federal buildings.

9 (b) **FEDERAL BUILDING RESPONSE PLAN.**—(1) The
10 Administrator of the General Services Administration, in
11 consultation with the Administrator, the Assistant Sec-
12 retary for Occupational Safety and Health Administra-
13 tion, the Director, and affected Federal departments or
14 agencies shall prepare response plans addressing indoor
15 air quality in Federal buildings. The plans shall, to the
16 fullest extent practicable, be developed in conjunction with
17 response plans pursuant to section 8 of this Act.

18 (2) The response plan shall provide for implementa-
19 tion of a range of response actions which will result in
20 the reduction of human exposure to indoor air contami-
21 nants listed pursuant to section 7(a) of this Act, and at-
22 tainment, to the fullest extent practicable, of indoor air
23 contaminant concentration levels which are protective of
24 public and worker health.

25 (3) Federal building response plans provided for in
26 paragraph (1) of this subsection shall include—

1 (A) a list of all Federal buildings;

2 (B) a description and schedule of general re-
3 sponse actions including general building manage-
4 ment practices, product purchase guidelines, air
5 quality problem identification practices and methods,
6 personnel training programs, and other actions to be
7 implemented to reduce exposures to indoor air con-
8 taminants in those buildings listed in subparagraph
9 (A);

10 (C) a list of individual Federal buildings listed
11 in subparagraph (A) for which there is sufficient evi-
12 dence of indoor air contamination or related em-
13 ployee health effects to warrant assessment of the
14 building pursuant to section 14 of this Act and a
15 schedule for development and submittal of building
16 assessment proposals pursuant to section 14(d) of
17 this Act;

18 (D) a description and schedule of specific re-
19 sponse actions to be implemented in each specific
20 building identified in subparagraph (C) and assessed
21 pursuant to section 14 of this Act;

22 (E) an identification of the Federal agency re-
23 sponsible for funding and implementation of each re-
24 sponse action identified in subparagraphs (B) and
25 (D); and

1 ~~(F)~~ an identification of the estimated costs of
2 each response action identified in subparagraphs ~~(B)~~
3 and ~~(D)~~ and the source of these resources.

4 ~~(4)~~ The response plan provided for in this subsection
5 shall address each Federal building identified in para-
6 graph ~~(3)(a)~~, except that specific buildings may be ex-
7 empted from coverage under this subsection. Such build-
8 ings may be exempted on the grounds of—

9 ~~(A)~~ national security;

10 ~~(B)~~ anticipated demolition or termination of
11 Federal ownership within three years; and

12 ~~(C)~~ specialized use of a building which pre-
13 cludes necessary actions to reduce indoor air con-
14 tamination.

15 ~~(5)~~ The plan provided for in subsection ~~(b)~~ shall be
16 submitted to Congress within twenty-four months of en-
17 actment of this title and biennially thereafter.

18 ~~(6)~~ The Administrator of the General Services Ad-
19 ministration shall provide for public review and comment
20 on the response plan provided for in this section, including
21 provision of notice in the Federal Register not less than
22 three months prior to submission to the Congress.

23 ~~(7)~~ The response plan shall include a summary of
24 public comments. The Council on Indoor Air Quality, pro-

1 vided for under section 12 of this Act, shall review and
2 comment on the plan.

3 ~~(c) INDOOR AIR QUALITY RESERVE.—(1) The Ad-~~
4 ~~ministrato~~r of the General Services Administration shall
5 reserve 0.5 per centum of any funds used for construction
6 of new Federal buildings for design and construction of
7 measures to reduce indoor air contaminant concentrations
8 within such buildings.

9 ~~(2) Measures which may be funded with the reserve~~
10 ~~provided for in this subsection may include, but are not~~
11 ~~limited to—~~

12 ~~(A) development and implementation of general~~
13 ~~design principles intended to avoid or prevent con-~~
14 ~~tamination of indoor air;~~

15 ~~(B) design and construction of improved ven-~~
16 ~~tilation techniques or equipment;~~

17 ~~(C) development and implementation of product~~
18 ~~purchasing guidelines;~~

19 ~~(D) design and construction of contaminant de-~~
20 ~~tection and response systems;~~

21 ~~(E) development of building management guide-~~
22 ~~lines and practices; and~~

23 ~~(F) training in building and systems operations~~
24 ~~for building management and maintenance person-~~
25 ~~nel.~~

1 (3) Upon completion of construction of each Federal
2 building covered by this section, the Administrator of the
3 General Services Administration shall file with the Admin-
4 istrator, with the Clearinghouse established under section
5 13 of this Act, and with the Council established under sec-
6 tion 12 of this Act, a report describing the uses made of
7 the reserve provided for in this subsection. Such report
8 shall be in sufficient detail to provide design and construc-
9 tion professionals with models and general plans of various
10 indoor air contaminant reduction measures adequate to
11 assess the appropriateness of such measures for applica-
12 tion in other buildings.

13 (4) The Administrator of the General Services Ad-
14 ministration, with the concurrence of the Administrator,
15 may exempt a planned Federal building from the require-
16 ments of this subsection if he finds that such exemption
17 is required on the grounds of national security or that the
18 intended use of the building is not compatible with the
19 authority of this section.

20 (d) NEW EPA BUILDINGS.—Any new building con-
21 structed for use by the Environmental Protection Agency
22 as headquarters shall be designed, constructed, main-
23 tained, and operated as a model to demonstrate principles
24 and practices for protection of indoor air quality.

1 (e) BUILDING COMMENTS.—(1) The Administrator
2 of the General Services Administration, in consultation
3 with the Administrator, the Assistant Secretary for Occu-
4 pational Safety and Health Administration, and the Direc-
5 tor, shall provide, by regulation, a method and format for
6 filing and responding to comments and complaints con-
7 cerning indoor air quality in Federal buildings by workers
8 in such buildings and by the public. The procedure for
9 filing and responding to worker complaints shall supple-
10 ment and not diminish or supplant existing practices or
11 procedures established under the Occupational Safety and
12 Health Act and executive orders pertaining to health and
13 safety for Federal employees.

14 (2) A listing of each such filing and an analysis of
15 such filings shall be included in each response plan pre-
16 pared pursuant to this section. Such listing shall preserve
17 the confidentiality of individuals making filings under this
18 section. Such listing shall preserve the confidentiality of
19 the individuals making filings under this section.

20 (3) Regulations implementing this subsection shall be
21 promulgated at the earliest possible date, but not later
22 than twenty-four months from the date of enactment of
23 this title.

24 (f) BUILDING VENTILATION AND MANAGEMENT
25 TRAINING.—(1) Within six months of the date of enact-

1 ment of this title the Administrator of the General Serv-
2 ices Administration shall designate, or require that a les-
3 see designate, an Indoor Air Quality Coordinator for each
4 Federal building which is owned or leased by the General
5 Services Administration. An Indoor Air Quality Coordina-
6 tor shall not serve more than one building.

7 (2) Within forty-eight months of the date of enact-
8 ment of this title, each Indoor Air Quality Coordinator
9 shall complete the indoor air training course operated pur-
10 suant to section 6(b) of this Act. After thirty-six months
11 from the date of enactment of this title, each newly des-
12 igned Indoor Air Quality Coordinator shall complete the
13 indoor air training course within twelve months of des-
14 ignment.

15 (3) In any case where the Administrator of the Gen-
16 eral Services Administration finds that a lessee has failed
17 to designate and train an Indoor Air Quality Coordinator
18 pursuant to the requirements of this Act, the Adminis-
19 trator of the General Services Administration shall not re-
20 establish a lease for such building.

21 **SEC. 10. STATE AND LOCAL INDOOR AIR QUALITY PRO-**
22 **GRAMS.**

23 (a) MANAGEMENT AND ASSESSMENT STRATEGY
24 DEMONSTRATION.—(1) The Governor of a State may
25 apply to the Administrator for a grant to support dem-

1 onstration of the development and implementation of a
2 management strategy and assessment with respect to in-
3 door air quality within such State.

4 (2) State indoor air quality management strategies
5 shall—

6 (A) identify a lead agency and provide an insti-
7 tutional framework for protection of indoor air qual-
8 ity;

9 (B) identify and describe existing programs,
10 controls or related activities concerning indoor air
11 quality within State agencies including regulations,
12 educational programs, assessment programs, or
13 other activities;

14 (C) identify and describe existing programs,
15 controls, or related activities concerning indoor air
16 quality of local and other sub-State agencies and as-
17 sure coordination among local, State, and Federal
18 agencies involved in indoor air quality activities in
19 the State; and

20 (D) assure coordination of indoor air quality
21 programs with ambient air quality programs and re-
22 lated activities.

23 (3) State indoor air quality assessment programs
24 shall—

1 (A) identify indoor air contaminants of concern
2 and, to the extent practicable, assess the seriousness
3 and the extent of indoor air contamination by con-
4 taminants listed in section 7(a) of this Act;

5 (B) identify the classes or types of buildings or
6 other indoor environments in which indoor air con-
7 taminants pose the most serious threat to human
8 health;

9 (C) if applicable, identify geographic areas in
10 the State where there is a reasonable likelihood of
11 indoor air contamination as a result of the presence
12 of contaminants in the ambient air or the existence
13 of sources of a contaminant;

14 (D) identify methods and procedures for indoor
15 air contaminant assessment and monitoring;

16 (E) provide for periodic assessments of indoor
17 air quality and identification of indoor air quality
18 changes and trends; and

19 (F) establish methods to provide information
20 concerning indoor air contamination to the public
21 and to educate the public and interested groups, in-
22 cluding building owners and design and engineering
23 professionals, about indoor air contamination.

24 (4) As part of a management strategy and assess-
25 ment pursuant to this subsection, the applicant may de-

1 develop contaminant action levels, guidance, or standards
2 and may draw on health advisories developed pursuant to
3 section 7 of this Act.

4 (5) States which are selected to demonstrate the de-
5 velopment of management and assessment strategies shall
6 provide a management strategy and assessment pursuant
7 to paragraphs (2) and (3) to the Administrator within
8 thirty-six months of selection and shall certify to the Ad-
9 ministrator that the strategy and assessment meet the re-
10 quirements of this Act.

11 (6) States shall provide for public review and com-
12 ment on the management strategy and assessment prior
13 to submission of such strategy and assessment to the Ad-
14 ministrator.

15 (b) RESPONSE PROGRAMS.—(1) A Governor of a
16 State or the executive officer of a local air pollution control
17 agency may apply to the Administrator for grant assist-
18 ance to develop a response program designed to reduce
19 human exposure to an indoor air contaminant or contami-
20 nants in the State, or in a specific class or type of building
21 in that State, or in a specific geographic area of that
22 State.

23 (2) A response program shall—

24 (A) address a contaminant or contaminants list-
25 ed pursuant to section 7(a) of this Act;

1 ~~(B)~~ identify existing data and information con-
2 cerning the contaminant or contaminants to be ad-
3 dressed, the class or type of building to be ad-
4 dressed, and the specific geographic area to be ad-
5 dressed;

6 ~~(C)~~ describe and schedule the specific actions to
7 be taken to reduce human exposure to the identified
8 contaminant or contaminants including the adoption
9 and enforcement of any ventilation standards;

10 ~~(D)~~ identify the State or local agency or public
11 organization which will implement the response ac-
12 tions;

13 ~~(E)~~ identify the Federal, State, and local finan-
14 cial resources to be used to implement the response
15 program; and

16 ~~(F)~~ provide for the assessment of the effective-
17 ness of the response program.

18 ~~(3)~~ As part of a response program pursuant to this
19 subsection, an applicant may develop contaminant action
20 levels, guidance, or standards based on health advisories
21 developed pursuant to section 7 of this Act.

22 (4) As part of a response program pursuant to this
23 subsection, an applicant may develop a standard establish-
24 ing a ventilation rate or rates for a class or classes of

1 buildings including development assessment and compli-
2 ance programs needed to implement the standard.

3 ~~(5)~~ As part of the response program pursuant to this
4 subsection, an applicant may develop a response plan ad-
5 dressing indoor air quality in State and local government
6 buildings. Such plans shall, to the fullest extent prac-
7 ticable, be consistent with response plans developed pursu-
8 ant to section 9 of this Act.

9 ~~(c)~~ GRANT MANAGEMENT.—(1) Grants under sub-
10 section ~~(a)(1)~~ of this subsection shall not be less than
11 \$75,000 for each fiscal year.

12 ~~(2)~~ In selecting States for demonstration and imple-
13 mentation of management strategies and assessments
14 under subsection ~~(a)(1)~~ the Administrator shall con-
15 sider—

16 (A) the previous experience of the State in ad-
17 dressing indoor air quality issues;

18 (B) the seriousness of the indoor air quality is-
19 sues identified by the State; and

20 (C) the potential for demonstration of innova-
21 tive management or assessment measures which may
22 be of use to other States.

23 ~~(3)~~ In selecting States for demonstration of manage-
24 ment strategies and assessments under subsection ~~(a)(1)~~,
25 the Administrator shall focus resources to assure that suf-

1 ficient funds are available to selected States to provide for
2 the development of comprehensive and thorough manage-
3 ment strategies and assessments in each selected State
4 and to adequately demonstrate implementation of such
5 strategies and assessments.

6 (4) Grants under subsection (b)(1) of this section
7 shall not exceed \$250,000 per fiscal year and shall be
8 available to the State for a period of not to exceed three
9 years.

10 (5) In selecting response programs developed under
11 subsection (b) for grant assistance, the Administrator
12 shall consider—

13 (A) the potential for the response program to
14 bring about reductions in indoor air contaminant
15 levels;

16 (B) the contaminants to be addressed, giving
17 priority to contaminants for which health advisories
18 have been developed pursuant to section 207 of this
19 title;

20 (C) the type of building to be addressed, giving
21 priority to building types in which substantial
22 human exposures to indoor air contaminants occur;

23 (D) the potential for development of innovative
24 response measures or methods which may be of use

1 to other States or local air pollution control agen-
2 cies; and

3 ~~(E)~~ the State indoor air quality management
4 strategy and assessment, giving priority to States
5 with complete indoor air management strategies and
6 assessments.

7 ~~(6)~~ The Federal share of grants under subsections
8 (a) and (b) of this section shall not exceed 75 per centum
9 of the costs incurred in demonstration and implementation
10 of such activities and shall be made on the condition that
11 the non-Federal share is provided from non-Federal funds.

12 ~~(7)~~ Funds granted pursuant to subsections (a) and
13 (b) of this section in a fiscal year shall remain available
14 for obligation for the next fiscal year in which obligated
15 and for the next following fiscal year.

16 ~~(8)~~ No grant shall be made under this section in any
17 fiscal year to a State or local air pollution control agency
18 which in the preceding year received a grant under this
19 section unless the Administrator determines that such
20 agency satisfactorily implemented such grant activities in
21 such preceding fiscal year.

22 ~~(9)~~ States and air pollution control agencies shall
23 provide such information in applications for grant assist-
24 ance and pertaining to grant funded activities as the Ad-
25 ministrator requires.

1 **SEC. 11. OFFICE OF INDOOR AIR QUALITY.**

2 (a) ESTABLISHMENT.—The Administrator shall es-
3 tablish an Office of Indoor Air Quality within the Office
4 of Air and Radiation at the Environmental Protection
5 Agency.

6 (b) RESPONSIBILITIES.—The Office of Indoor Air
7 Quality shall—

8 (1) list indoor air contaminants and develop
9 health advisories pursuant to section 7 of this Act;

10 (2) develop national indoor air quality response
11 plans as provided for in section 8 of this Act;

12 (3) manage Federal grant assistance provided
13 to air pollution control agencies under section 10 of
14 this Act;

15 (4) assure the coordination of Federal statutes
16 and programs administered by the Agency relating
17 to indoor air quality and reduce duplication or in-
18 consistencies among these programs;

19 (5) work with other Federal agencies, including
20 the Occupational Safety and Health Administration
21 and the National Institute for Occupational Safety
22 and Health, to assure the effective coordination of
23 programs related to indoor air quality; and

24 (6) work with public interest groups, labor or-
25 ganizations, and the private sector in development of
26 information related to indoor air quality including

1 the health threats of human exposure to indoor air
2 contaminants, the development of technologies and
3 methods to control such contaminants, and the de-
4 velopment of programs to reduce contaminant con-
5 centrations.

6 **SEC. 12. COUNCIL ON INDOOR AIR QUALITY.**

7 (a) **AUTHORITY.**—There is established a Council on
8 Indoor Air Quality.

9 (b) **RESPONSIBILITIES.**—The Council on Indoor Air
10 Quality shall—

11 (1) provide for the full and effective coordina-
12 tion of Federal agency activities relating to indoor
13 air quality;

14 (2) provide a forum for resolution of conflicts
15 or inconsistencies in policies or programs related to
16 indoor air quality;

17 (3) review and comment on the national indoor
18 air response program developed pursuant to section
19 208 of this title and the Federal Building Response
20 Plan developed pursuant to section 9(b); and

21 (4) prepare a report to Congress pursuant to
22 subsection (d) of this subsection.

23 (c) **ORGANIZATION.**—(1) The Council on Indoor Air
24 Quality shall include senior representatives of Federal

1 agencies involved in indoor air quality programs includ-
2 ing—

3 (A) the Environmental Protection Agency;

4 (B) the Occupational Safety and Health Admin-
5 istration;

6 (C) the National Institute of Occupational Safe-
7 ty and Health;

8 (D) the Department of Health and Human
9 Services;

10 (E) the Department of Housing and Urban
11 Development;

12 (F) the Department of Energy;

13 (G) the Department of Transportation;

14 (H) the Consumer Product Safety Commission;

15 and

16 (I) the General Services Administration.

17 (2) The representative of the Environmental Protec-
18 tion Agency shall chair the Council in the two years follow-
19 ing enactment of this Act. In each subsequent year, mem-
20 bers of the Council shall select the chair for that year.

21 (3) The Council shall be served by a staff to include
22 an Executive Director and not less than three full-time
23 equivalent employees.

24 (d) REPORT TO CONGRESS.—(1) The Council shall
25 submit to the Congress, within eighteen months of enact-

1 ment of this title, and biennially thereafter, a report which
2 shall—

3 (A) describe and assess the seriousness, extent,
4 and characteristics of indoor air contamination
5 throughout the country;

6 (B) summarize the major research issues con-
7 cerning the protection of indoor air quality, describe
8 the research accomplishments of Federal agencies
9 over the previous two years, and provide an agenda
10 of indoor air quality research for individual Federal
11 agencies over a three-year period;

12 (C) summarize actions taken pursuant to this
13 title over the previous year, including publication of
14 health advisories, implementation of national and
15 Federal building response plans, and assistance to
16 States;

17 (D) provide a general description of the activi-
18 ties to be conducted by Federal agencies to address
19 indoor air quality problems over the following three-
20 year period; and

21 (E) make recommendations for any actions
22 needed to assure the quality of indoor air, including
23 recommendations relating to institutional structures,
24 funding, and legislation.

1 (2) The Council shall provide for public review and
2 comment on the report required by this subsection.

3 **SEC. 13. INDOOR AIR QUALITY INFORMATION CLEARING-**
4 **HOUSE.**

5 (1) The Administrator is authorized and directed to
6 establish a national indoor air quality clearinghouse to be
7 used to disseminate indoor air quality information to other
8 Federal agencies, State, and local governments, and pri-
9 vate organizations and individuals.

10 (2) The clearinghouse shall be a repository for reli-
11 able indoor air quality related information to be collected
12 from and made available to government agencies and pri-
13 vate organizations and individuals. At a minimum, the
14 clearinghouse established by this section shall make avail-
15 able reports, programs, and materials developed pursuant
16 to the requirements of this Act.

17 (3) The clearinghouse shall operate a toll-free "hot-
18 line" on indoor air quality which shall be available to pro-
19 vide to the public general information about indoor air
20 quality and general guidance concerning response to in-
21 door air quality contamination problems.

22 (4) The Administrator may provide for the design,
23 development, and implementation of the clearinghouse
24 through a contractual agreement with a nonprofit organi-
25 zation.

1 **SEC. 14. BUILDING ASSESSMENT DEMONSTRATION.**

2 (a) **AUTHORITY.**—(1) The Director of the National
3 Institute for Occupational Safety and Health shall, in con-
4 sultation with the Administrator, implement a Building
5 Assessment Demonstration Program to support develop-
6 ment of methods, techniques, and protocols for assessment
7 of indoor air contamination in nonresidential,
8 nonindustrial buildings and to provide assistance and
9 guidance to building owners and occupants on measures
10 to reduce indoor air contamination.

11 (2) In implementation of this section, the Director
12 shall have the authority to conduct on-site assessments of
13 individual buildings, including Federal, State, and munici-
14 pal buildings.

15 (3) Nothing in this section shall in any way limit or
16 constrain existing authorities pursuant to the Occupa-
17 tional Safety and Health Act of 1970 (29 U.S.C. 651).

18 (b) **ASSESSMENT ELEMENTS.**—Assessments of indi-
19 viduals buildings conducted pursuant to this section shall,
20 at a minimum, provide—

21 (1) an identification of suspected contaminants
22 in the air in the building and the level of such con-
23 taminants;

24 (2) an assessment of the probable sources of
25 contaminants in the air in the building;

1 (3) a review of the nature and extent of health
2 concerns and symptoms identified by building occu-
3 pants;

4 (4) an assessment of the probable association of
5 indoor air contaminants with the health and related
6 concerns of building occupants including assessment
7 of occupational and environmental factors which
8 may relate to the health concerns;

9 (5) identification of appropriate measures to
10 control contaminants in the air in the building, to
11 reduce the concentration levels of contaminants, and
12 to reduce exposure to contaminants; and

13 (6) evaluation of the effectiveness of response
14 measures in control and reduction of contaminants
15 and contaminant levels, the change in occupant
16 health concerns and symptoms, the approximate
17 costs of such measures, and any additional response
18 measures which may reduce occupant's health con-
19 cerns.

20 (c) ASSESSMENT REPORTS.—(1) The Director shall
21 prepare—

22 (A) a preliminary report of each building as-
23 sessment which shall document findings concerning
24 assessment elements in paragraphs (1) through (5)
25 of subsection (b); and

1 (B) a final report which shall provide an overall
2 summary of the building assessment including infor-
3 mation on the effectiveness and cost of response
4 measures, and the potential for application of re-
5 sponse measures to other buildings.

6 (2) Preliminary assessment reports shall be prepared
7 not later than one hundred and eighty days after the selec-
8 tion of a building for assessment. Final assessment reports
9 shall be prepared not later than one hundred and eighty
10 days after completion of the preliminary report.

11 (3) Preliminary and final reports shall be made avail-
12 able to building owners, occupants, and the authorized
13 representatives of occupants.

14 (d) BUILDING ASSESSMENT PROPOSAL.—(1) The Di-
15 rector shall consider individual buildings for assessment
16 under this section in response to a proposal identifying
17 the building and the building owner and providing prelimi-
18 nary, background information about the nature of the in-
19 door air contamination, previous response to air contami-
20 nation problems, and the characteristics, occupancy, and
21 uses of the building.

22 (2) Building assessment proposals may be submitted
23 by a building owner or occupants or the authorized rep-
24 resentatives of building occupants, including the author-
25 ized representatives of employees working in a building.

1 ~~(e) BUILDING ASSESSMENT SELECTION.—(1) In se-~~
2 lection of buildings to be assessed under this section the
3 Director shall consider—

4 ~~(A) the seriousness and extent of apparent in-~~
5 door air contamination and human health effects of
6 such contamination;

7 ~~(B) the proposal for a building assessment sub-~~
8 mitted pursuant to subsection ~~(d)~~ of this section;

9 ~~(C) the views and comments of the building~~
10 owners;

11 ~~(D) the potential for the building assessment to~~
12 expand knowledge of building assessment methods
13 including identification of contaminants, assessment
14 of sources, and development of response measures;
15 and

16 ~~(E) the listing of a building pursuant to sub-~~
17 paragraph ~~(C)~~ of section 9(b)(3).

18 ~~(2) The Director shall provide a preliminary response~~
19 and review of building assessment proposals to applicants
20 and the applicable building owner within sixty days of re-
21 ceipt of a proposal and, to the extent practicable, shall
22 provide a final decision concerning selection of a proposal
23 within one hundred and twenty days of submittal.

24 ~~(f) BUILDING ASSESSMENT SUPPORT.—(1) The Di-~~
25 rector may enter into agreements with private individuals,

1 firms, State and local governments, or academic institu-
2 tions for services and related assistance in conduct of as-
3 sessments under the authority of this section.

4 (2) The Director may enter into agreements with
5 other Federal agencies for the assignment of Federal em-
6 ployees to a specific building assessment project for peri-
7 ods of up to one hundred and eighty days.

8 (g) SUMMARY REPORT.—(1) The Director shall pro-
9 vide, on an annual basis, a report on the implementation
10 of this section to the Administrator of the Environmental
11 Protection Agency and to the Council on Indoor Air Qual-
12 ity established pursuant to section 12 of this Act.

13 (2) The Director shall, from time to time and in con-
14 sultation with the Administrator, publish general reports
15 containing materials, information, and general conclusions
16 concerning assessments conducted pursuant to this sec-
17 tion. Such reports may address concerns related to reme-
18 diation of indoor air contamination problems, assessment
19 of health related concerns, and prevention of such prob-
20 lems through improved design, materials and product
21 specifications, and management practices.

22 (3) Reports prepared pursuant to this subsection and
23 subsection (c) of this section shall be provided to the In-
24 door Air Quality Information Clearinghouse provided for
25 in section 13 of this Act and, to the extent practicable,

1 such reports shall be made available to architectural, de-
2 sign and engineering firms and to organizations represent-
3 ing such firms.

4 **SEC. 15. STATE AND FEDERAL AUTHORITY.**

5 (a) GENERAL AUTHORITY.—Nothing in this title
6 shall be construed, interpreted, or applied to preempt, dis-
7 place, or supplant any other State or Federal law, whether
8 statutory or common or any local ordinance.

9 (b) OCCUPATIONAL SAFETY AND HEALTH.—In exer-
10 cising any authority under this title, the Administrator
11 shall not, for purposes of section 4(b)(1) of the Occupa-
12 tional Safety and Health Act of 1970 (29 U.S.C.
13 653(b)(1)), be deemed to be exercising statutory authority
14 to prescribe or enforce standards or regulations affecting
15 occupational safety and health.

16 **SEC. 16. AUTHORIZATIONS.**

17 (a) For the purpose of carrying out sections 5, 6, and
18 7 of this Act there is authorized to be appropriated
19 \$20,000,000 for each of the fiscal years ending September
20 30, 1994, 1995, 1996, 1997, and 1998. Of such sums ap-
21 propriated, one quarter shall be reserved for implementa-
22 tion of section 7 of this Act and one quarter shall be re-
23 served for implementation of section 5(c) of this Act and
24 \$1,000,000 shall be reserved for implementation of section
25 6(b) of this Act.

1 (b) For the purpose of carrying out section 8, 9, 11,
2 and 13 of this Act there is authorized to be appropriated
3 \$10,000,000 for each of the fiscal years ending September
4 30, 1994, 1995, 1996, and 1997, and 1998. Of such sums
5 appropriated, one-fifth shall be reserved for implementa-
6 tion of section 13 and one-fifth shall be reserved for imple-
7 mentation of section 9.

8 (c) For the purpose of carrying out section 10 of this
9 Act, there is authorized to be appropriated \$12,000,000
10 for each of the fiscal years ending September 30, 1994,
11 1995, 1996, 1997, and 1998. Of such sums appropriated,
12 one-third shall be reserved for the purpose of carrying out
13 section 10(b) of this Act.

14 (d) For the purpose of carrying out section 12 of this
15 Act there is authorized to be appropriated \$1,500,000 for
16 each fiscal year ending September 30, 1994, 1995, 1996,
17 1997, and 1998.

18 (e) For the purpose of carrying out section 14 of this
19 Act there is authorized to be appropriated \$5,000,000 for
20 each of the fiscal years ending September 30, 1994, 1995,
21 1996, 1997, and 1998.

22 **SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

23 (a) *SHORT TITLE.*—This Act may be cited as the “In-
24 door Air Quality Act of 1993”.

1 (b) *TABLE OF CONTENTS.*—*The table of contents of this*

2 *Act is as follows:*

Sec. 1. Short title and table of contents.

Sec. 2. Findings.

Sec. 3. Purposes.

Sec. 4. Definitions.

Sec. 5. Indoor air quality research.

Sec. 6. Management practices, voluntary partnership programs, and ventilation standards.

Sec. 7. Indoor air contaminant health advisories.

Sec. 8. National indoor air quality response plan.

Sec. 9. Federal building response plan and demonstration program.

Sec. 10. State and local indoor air quality programs.

Sec. 11. Office of Radiation and Indoor Air.

Sec. 12. Council on Indoor Air Quality.

Sec. 13. Indoor air quality information clearinghouse.

Sec. 14. Building assessment demonstration.

Sec. 15. State and Federal authority.

Sec. 16. Authorization of appropriations.

3 ***SEC. 2. FINDINGS.***

4 *Congress finds that—*

5 (1) *Americans spend up to 90 percent of a day*
6 *indoors and, as a result, have a significant potential*
7 *for exposure to contaminants in the air indoors;*

8 (2) *exposure to indoor air contamination occurs*
9 *in workplaces, schools, public buildings, residences,*
10 *and transportation vehicles;*

11 (3) *recent scientific studies indicate that pollut-*
12 *ants in the indoor air include radon, asbestos, volatile*
13 *organic chemicals (including formaldehyde and ben-*
14 *zene), combustion byproducts (including carbon mon-*
15 *oxide and nitrogen oxides), metals and gases (includ-*
16 *ing lead, chlorine, and ozone), respirable particles, bi-*

1 *ological contaminants, microorganisms, and other*
2 *contaminants;*

3 *(4) a number of contaminants found in both am-*
4 *bient air and indoor air may occur at higher con-*
5 *centrations in indoor air than in outdoor air;*

6 *(5) indoor air pollutants pose serious threats to*
7 *public health (including cancer, respiratory illness,*
8 *multiple chemical sensitivities, skin and eye irrita-*
9 *tion, and related effects);*

10 *(6) up to 15 percent of the population of the*
11 *United States may have heightened sensitivity to*
12 *chemicals and related substances found in the air in-*
13 *doors;*

14 *(7) radon is among the most harmful indoor air*
15 *pollutants and is estimated to cause between 5,000*
16 *and 20,000 lung cancer deaths each year;*

17 *(8) other selected indoor air pollutants are esti-*
18 *mated to cause between 3,500 and 6,500 additional*
19 *cancer cases per year;*

20 *(9) indoor air contamination is estimated to*
21 *cause significant increases in medical costs and de-*
22 *clines in work productivity;*

23 *(10) as many as 20 percent of office workers*
24 *may be exposed to environmental conditions mani-*
25 *fested as "sick building syndrome";*

1 (11) sources of indoor air pollution include con-
2 ventional ambient air pollution sources, building ma-
3 terials, consumer and commercial products, combus-
4 tion appliances, indoor application of pesticides, and
5 other sources;

6 (12) there is not an adequate effort by Federal
7 agencies to conduct research on the seriousness and
8 extent of indoor air contamination, to identify the
9 health effects of indoor air contamination, and to de-
10 velop control technologies, education programs, and
11 other methods of reducing human exposure to the con-
12 tamination;

13 (13) there is not an adequate effort by Federal
14 agencies to develop response plans to reduce human
15 exposure to indoor air contaminants and there is a
16 need for improved coordination of the activities of
17 these agencies;

18 (14) there is not an adequate effort by Federal
19 agencies to develop methods, techniques, and protocols
20 for assessment of indoor air contamination in non-
21 residential, non-industrial buildings and to provide
22 guidance on measures to respond to contamination;
23 and

24 (15) State governments can make significant
25 contributions to the effective reduction of human expo-

1 *sure to indoor air contaminants and the Federal Gov-*
2 *ernment should assist States in development of pro-*
3 *grams to reduce exposures to the contaminants.*

4 **SEC. 3. PURPOSES.**

5 *The purposes of this Act are to—*

6 *(1) develop and coordinate through the Environ-*
7 *mental Protection Agency and at other departments*
8 *and agencies of the United States a comprehensive*
9 *program of research and development that addresses*
10 *the seriousness and extent of indoor air contamina-*
11 *tion, the human health effects of indoor air contami-*
12 *nants, and the technological and other methods of re-*
13 *ducing human exposure to the contaminants;*

14 *(2) establish a process under which the existing*
15 *authorities of Federal laws will be directed and fo-*
16 *cused to ensure the full and effective application of*
17 *the authorities to reduce human exposure to indoor*
18 *air contaminants where appropriate;*

19 *(3) provide support to State governments to dem-*
20 *onstrate and develop indoor air quality management*
21 *strategies, assessments, and response programs; and*

22 *(4) authorize activities to ensure the general co-*
23 *ordination of indoor air quality-related activity, pro-*
24 *vide for reports on indoor air quality to Congress,*
25 *provide for assessments of indoor air contamination*

1 *in specific buildings by the National Institute for Oc-*
2 *cupational Safety and Health, ensure that data and*
3 *information on indoor air quality issues is available*
4 *to interested parties, provide training, education, in-*
5 *formation, and technical assistance to the public and*
6 *private sector, and for other purposes.*

7 **SEC. 4. DEFINITIONS.**

8 *As used in this Act:*

9 (1) *ADMINISTRATOR.*—*The term “Adminis-*
10 *trator” means the Administrator of the Environ-*
11 *mental Protection Agency.*

12 (2) *ADMINISTRATION.*—*The term “Administra-*
13 *tion” means the Occupational Safety and Health Ad-*
14 *ministration.*

15 (3) *AGENCY.*—*The term “Agency” means the En-*
16 *vironmental Protection Agency.*

17 (4) *DIRECTOR.*—*The term “Director” means the*
18 *Director of the National Institute of Occupational*
19 *Safety and Health.*

20 (5) *FEDERAL AGENCY.*—*The term “Federal agen-*
21 *cy” or “agency of the United States” means any de-*
22 *partment, agency or other instrumentality of the Fed-*
23 *eral Government, including any independent agency*
24 *or establishment of the Federal Government or govern-*
25 *ment corporation.*

1 (6) *FEDERAL BUILDING.*—The term “Federal
2 *building*” means any building that is used primarily
3 as an office building, school, hospital, or residence
4 that is owned, leased, or operated by any Federal
5 agency and is over 10,000 square feet in area, any
6 building occupied by the Library of Congress, the
7 White House, or the Vice Presidential residence, and
8 any building that is included in the definition of
9 *Capitol Buildings* under section 193m(1) of title 40,
10 *United States Code*.

11 (7) *INDOOR.*—The term “indoor” means the en-
12 closed portions of buildings, including nonindustrial
13 workplaces, public buildings, Federal buildings,
14 schools, commercial buildings, and residences, and the
15 occupied portions of vehicles.

16 (8) *INDOOR AIR CONTAMINANT.*—The term “in-
17 door air contaminant” means any solid, liquid, semi-
18 solid, dissolved solid, biological organism, aerosol, or
19 gaseous material, including combinations or mixtures
20 of substances, known to occur in indoor air that may
21 reasonably be anticipated to have an adverse effect on
22 human health.

23 (9) *LOCAL AIR POLLUTION CONTROL AGENCY.*—
24 The term “local air pollution control agency” means
25 any city, county, or other local government authority

1 *charged with the responsibility for implementing pro-*
2 *grams or enforcing laws or ordinances relating to the*
3 *prevention and control of air pollution, including in-*
4 *door air pollution.*

5 (10) *LOCAL EDUCATION AGENCY.*—*The term*
6 *“local education agency” means any educational*
7 *agency as defined in section 198 of the Elementary*
8 *and Secondary Education Act of 1965 (20 U.S.C.*
9 *3381).*

10 **SEC. 5. INDOOR AIR QUALITY RESEARCH.**

11 (a) *AUTHORITY.*—

12 (1) *IN GENERAL.*—*The Administrator shall, in*
13 *coordination with other appropriate Federal agencies,*
14 *establish a national research, development, and dem-*
15 *onstration program to ensure the quality of air in-*
16 *doors. As part of the program, the Administrator*
17 *shall promote the coordination and acceleration of re-*
18 *search, investigations, experiments, demonstrations,*
19 *surveys, and studies relating to the causes, sources, ef-*
20 *fects, extent, prevention, detection, and correction of*
21 *contamination of indoor air.*

22 (2) *DUTIES OF ADMINISTRATOR.*—*In carrying*
23 *out this section, the Administrator is authorized, sub-*
24 *ject to the availability of appropriations, to—*

1 (A) collect and make available to the public,
2 through publications and other appropriate
3 means, the results of research, development, and
4 demonstration activities conducted pursuant to
5 this section;

6 (B) conduct research, development, and
7 demonstration activities and cooperate with
8 other Federal agencies, State and local govern-
9 ment entities, interstate and regional agencies,
10 other public agencies and authorities, nonprofit
11 institutions and organizations, and other persons
12 in the preparation and conduct of the research,
13 development, and demonstration activities;

14 (C) make grants to States or local govern-
15 ment entities, other public agencies and authori-
16 ties, nonprofit institutions and organizations,
17 and other persons;

18 (D) enter into contracts or cooperative
19 agreements with public agencies and authorities,
20 nonprofit institutions and organizations, and
21 other persons;

22 (E) conduct studies, including epidemiolog-
23 ical studies, of the effects of indoor air contami-
24 nants or potential contaminants on mortality
25 and morbidity and clinical and laboratory stud-

1 *ies on the immunologic, biochemical, physio-*
2 *logical, and toxicological effects (including the*
3 *carcinogenic, teratogenic, mutagenic, cardio-*
4 *vascular, and neurotoxic effects) of indoor air*
5 *contaminants or potential contaminants;*

6 *(F) develop and disseminate information*
7 *documents on indoor air contaminants describ-*
8 *ing the nature and characteristics of the con-*
9 *taminants in various concentrations;*

10 *(G) develop effective and practical processes,*
11 *protocols, methods, and techniques for the pre-*
12 *vention, detection, and correction of indoor air*
13 *contamination and work with the private sector,*
14 *other governmental entities, and schools and uni-*
15 *versities to encourage the development of innova-*
16 *tive techniques to improve indoor air quality;*

17 *(H) construct such facilities, employ such*
18 *staff, and provide such equipment as are nec-*
19 *essary to carry out this section;*

20 *(I) call conferences concerning the potential*
21 *or actual contamination of indoor air giving op-*
22 *portunity for interested persons to be heard and*
23 *present papers at the conferences;*

1 (J) utilize, on a reimbursable basis, facili-
2 ties and personnel of existing Federal scientific
3 laboratories and research centers;

4 (K) acquire secret processes, technical data,
5 inventions, patent applications, patents, licenses,
6 and an interest in lands, plants, equipment and
7 facilities, and other property rights, by purchase,
8 license, lease, or donation, and if the Adminis-
9 trator expects or intends that research conducted
10 pursuant to this subsection will primarily affect
11 worker safety and health, the Administrator shall
12 consult with the Assistant Secretary of Occupa-
13 tional Safety and Health and the Director; and
14 (L) conduct research, development, and
15 demonstration activities through nonprofit insti-
16 tutions on the use of indoor foliage as a method
17 to reduce indoor air pollution.

18 (b) PROGRAM REQUIREMENTS.—The Administrator,
19 in coordination with other appropriate Federal agencies,
20 shall conduct, assist, or facilitate research, investigations,
21 studies, surveys, or demonstrations with respect to the fol-
22 lowing:

23 (1) The effects on human health of contaminants
24 or combinations of contaminants (whether natural or
25 anthropogenic) at various levels including additive,

1 *cumulative, and synergistic effects on populations*
2 *both with and without heightened sensitivity that are*
3 *found or are likely to be found in indoor air.*

4 (2) *The exposure of persons to contaminants that*
5 *are found in indoor air (including exposure to the*
6 *substances from sources other than indoor air con-*
7 *tamination, including drinking water, diet, or other*
8 *exposures).*

9 (3) *The identification of populations at in-*
10 *creased risk of illness from exposure to indoor air con-*
11 *taminants and assessment of the extent and charac-*
12 *teristics of the exposure.*

13 (4) *The exposure of persons to contaminants in*
14 *buildings of different classes or types, and in vehicles,*
15 *and assessment of the association of particular con-*
16 *taminants and particular building classes or types*
17 *and vehicles.*

18 (5) *The identification of building classes or types*
19 *and design features or characteristics that increase*
20 *the likelihood of exposure to indoor air contaminants.*

21 (6) *The identification of the sources of indoor air*
22 *contaminants, including association of contaminants*
23 *with outdoor sources, building or vehicle design, class-*
24 *es or types of products, building management prac-*

1 *tices, equipment operation practices, building mate-*
2 *rials, and related factors.*

3 *(7) The assessment of relationships between con-*
4 *taminant concentration levels in ambient air and the*
5 *contaminant concentration levels in the indoor air.*

6 *(8) The development of methods and techniques*
7 *for characterizing and modeling indoor air movement*
8 *and flow within buildings or vehicles, including the*
9 *transport and dispersion of contaminants in the in-*
10 *door air.*

11 *(9) The assessment of the fate, including deg-*
12 *radation and transformation, of particular contami-*
13 *nants in indoor air.*

14 *(10) The development of methods and techniques*
15 *to characterize the association of contaminants, the*
16 *levels of contaminants, and the potential for contami-*
17 *nation of new construction with climate, building lo-*
18 *cation, seasonal change, soil and geologic formations,*
19 *and related factors.*

20 *(11) The assessment of indoor air quality in fa-*
21 *cilities of local education agencies and buildings used*
22 *as child care facilities and development of measures*
23 *and techniques for control of indoor air contamina-*
24 *tion in the buildings.*

1 (12) *The development of protocols, methods, tech-*
2 *niques, and instruments for sampling indoor air to*
3 *determine the presence and level of contaminants, in-*
4 *cluding sample collection and the storage of samples*
5 *before analysis and development of methods to im-*
6 *prove the efficiency and reduce the cost of analysis.*

7 (13) *The development of air quality sampling*
8 *methods and instruments that are inexpensive and*
9 *easy to use and may be used by the general public.*

10 (14) *The development of control technologies,*
11 *building design criteria, and management practices to*
12 *prevent the entrance of contaminants into buildings*
13 *or vehicles (such as air intake protection, sealing, and*
14 *related measures) and to reduce the concentrations of*
15 *contaminants indoor (such as control of emissions*
16 *from internal sources of contamination, improved air*
17 *exchange and ventilation, filtration, and related*
18 *measures).*

19 (15) *The development of materials and products*
20 *that may be used as alternatives to materials or prod-*
21 *ucts that are now in use and that contribute to indoor*
22 *air contamination.*

23 (16) *Research, to be carried out principally by*
24 *the Occupational Safety and Health Administration*

1 *and the National Institute for Occupational Safety*
2 *and Health, for the purpose of assessing—*

3 *(A) the exposure of workers to indoor air*
4 *contaminants, including an assessment of result-*
5 *ing health effects; and*

6 *(B) the costs of declines in productivity,*
7 *sick time use, increased use of employer-paid*
8 *health insurance, and worker compensation*
9 *claims.*

10 *(17) Research, to be carried out in conjunction*
11 *with the Secretary of Housing and Urban Develop-*
12 *ment, and the Secretary of the Department of Energy*
13 *for the purpose of developing methods for assessing the*
14 *potential for indoor air contamination of new con-*
15 *struction and design measures to avoid indoor air*
16 *contamination.*

17 *(18) Research, to be carried out in conjunction*
18 *with the Secretary of Transportation, for the purposes*
19 *of—*

20 *(A) assessing the potential for indoor air*
21 *contamination in public and private transpor-*
22 *tation; and*

23 *(B) designing measures to avoid the indoor*
24 *air contamination.*

1 (19) *Research, to be carried out in consultation*
2 *with the Administrator for the National Aeronautics*
3 *and Space Administration, for the purpose of assess-*
4 *ing the use of indoor foliage as a means to reduce in-*
5 *door air contamination, including demonstration*
6 *projects to determine the level of pollutants reduced by*
7 *indoor plants in buildings.*

8 (c) *TECHNOLOGY DEMONSTRATION PROGRAM.—*

9 (1) *IN GENERAL.—The Administrator may enter*
10 *into cooperative agreements or contracts with, or pro-*
11 *vide financial assistance in the form of grants to,*
12 *public agencies and authorities, nonprofit institutions*
13 *and organizations, employee advocate organizations,*
14 *local educational institutions, or other appropriate*
15 *entities or persons to demonstrate practices, methods,*
16 *technologies, or processes that may be effective in con-*
17 *trolling sources or potential sources of indoor air con-*
18 *tamination, preventing the occurrence of indoor air*
19 *contamination, and reducing exposures to indoor air*
20 *contamination.*

21 (2) *REQUIREMENTS FOR ASSISTANCE.—The Ad-*
22 *ministrator may assist a demonstration activity*
23 *under paragraph (1) only if—*

24 (A) *the demonstration activity will serve to*
25 *demonstrate a new or significantly improved*

1 *practice, method, technology, or process or the*
2 *feasibility and cost effectiveness of an existing,*
3 *but unproven, practice, method, technology, or*
4 *process and will not duplicate other Federal,*
5 *State, local, or commercial efforts to demonstrate*
6 *the practice, method, technology, or process;*

7 *(B) the demonstration activity meets the re-*
8 *quirements of this section and serves the pur-*
9 *poses of this Act;*

10 *(C) the demonstration of the practice, tech-*
11 *nology, or process will comply with all other*
12 *laws and regulations for the protection of human*
13 *health, welfare, and the environment; and*

14 *(D) in the case of a contract or cooperative*
15 *agreement, the practice, method, technology, or*
16 *process—*

17 *(i) would not be adequately dem-*
18 *onstrated by State, local, or private persons,*
19 *or in the case of an application for finan-*
20 *cial assistance, by a grant; and*

21 *(ii) is not likely to receive adequate fi-*
22 *nancial assistance from other sources.*

23 *(3) SOLICITATIONS.—The demonstration pro-*
24 *gram established by this subsection shall include so-*
25 *licitations for demonstration projects, selection of*

1 *suitable demonstration projects from among the pro-*
2 *posed demonstration projects, supervision of the dem-*
3 *onstration projects, evaluation and publication of the*
4 *results of demonstration projects, and dissemination*
5 *of information on the effectiveness and feasibility of*
6 *the practices, methods, technologies, and processes that*
7 *are proven to be effective.*

8 (4) *PUBLISHED SOLICITATIONS.*—Not later than
9 *180 days after the date of enactment of this Act, and*
10 *not less often than every 12 months thereafter, the Ad-*
11 *ministrator shall publish a solicitation for proposals*
12 *to demonstrate, prototype or at full-scale, practices,*
13 *methods, technologies, and processes that are (or may*
14 *be) effective in controlling sources or potential sources*
15 *of indoor air contaminants. The solicitation notice*
16 *shall prescribe the information to be included in the*
17 *proposal, including technical and economic informa-*
18 *tion derived from the research and development efforts*
19 *of the applicant, and other information sufficient to*
20 *permit the Administrator to assess the potential effec-*
21 *tiveness and feasibility of the practice, method, tech-*
22 *nology, or process proposed to be demonstrated.*

23 (5) *APPLICATIONS.*—Any person and any public
24 *or private nonprofit entity may submit an applica-*
25 *tion to the Administrator in response to the solicita-*

1 *tions required by paragraph (4). The application*
2 *shall contain a proposed demonstration plan setting*
3 *forth how and when the project is to be carried out*
4 *and such other information as the Administrator may*
5 *require.*

6 *(6) REVIEW.—In selecting practices, methods,*
7 *technologies, or processes to be demonstrated, the Ad-*
8 *ministrator shall fully review the applications sub-*
9 *mitted and shall evaluate each project according to*
10 *the following criteria:*

11 *(A) The potential for the proposed practice,*
12 *method, technology, or process to effectively con-*
13 *trol sources or potential sources of contaminants*
14 *that present risks to human health.*

15 *(B) The consistency of the proposal with the*
16 *recommendations provided pursuant to section*
17 *8(d)(8).*

18 *(C) The capability of the person or persons*
19 *proposing the project to successfully complete the*
20 *demonstration as described in the application.*

21 *(D) The likelihood that the demonstrated*
22 *practice, method, technique, or process could be*
23 *applied in other locations and circumstances to*
24 *control sources or potential sources of contami-*

1 *nants, including considerations of cost, effective-*
2 *ness, and technological feasibility.*

3 *(E) The extent of financial support from*
4 *other persons to accomplish the demonstration as*
5 *described in the application.*

6 *(F) The capability of the person or persons*
7 *proposing the project to disseminate the results of*
8 *the demonstration or otherwise make the benefits*
9 *of the practice, method, or technology widely*
10 *available to the public in a timely manner.*

11 *(7) SELECTION OF PROJECTS.—The Adminis-*
12 *trator shall select or refuse to select a project for dem-*
13 *onstration under this subsection in an expeditious*
14 *manner. In the case of a refusal to select a project,*
15 *the Administrator shall notify the applicant of the*
16 *reasons for the refusal.*

17 *(8) PERFORMANCE OF PROJECTS.—Each dem-*
18 *onstration project under this section shall be per-*
19 *formed by the applicant, or by a person satisfactory*
20 *to the applicant, under the supervision of the Admin-*
21 *istrator. The Administrator shall enter into a written*
22 *agreement with each applicant granting the Adminis-*
23 *trator the responsibility and authority for testing pro-*
24 *cedures, quality control, monitoring, and other meas-*

1 *urements necessary to determine and evaluate the re-*
2 *sults of the demonstration project.*

3 (9) *AGREEMENTS.*—*The Administrator shall*
4 *enter into agreements, if practicable and desirable, to*
5 *provide for monitoring testing procedures, quality*
6 *control, and such other measurements as are nec-*
7 *essary to evaluate the results of demonstration*
8 *projects or facilities intended to control sources or po-*
9 *tential sources of contaminants.*

10 (10) *SCHEDULES.*—*Each demonstration project*
11 *under this section shall be completed within such time*
12 *as is established in the demonstration plan. The Ad-*
13 *ministrator may extend any deadline established*
14 *under this subsection by mutual agreement with the*
15 *applicant concerned.*

16 (11) *FEDERAL FUNDS.*—*The total amount of*
17 *Federal funds for any demonstration project under*
18 *this section shall not exceed 75 percent of the total*
19 *cost of the project. If the Administrator determines*
20 *that research under this section is of a basic nature*
21 *that would not otherwise be undertaken, or the appli-*
22 *cant is a local educational agency, the Administrator*
23 *may approve a grant under this section with a*
24 *matching requirement other than that specified in*
25 *this subsection, including full Federal funding.*

1 (12) *REPORTS.*—*The Administrator shall, from*
2 *time to time, publish general reports describing the*
3 *findings of demonstration projects conducted pursu-*
4 *ant to this section. The reports shall be provided to*
5 *the indoor air quality information clearinghouse pro-*
6 *vided for in section 13.*

7 (d) *STUDY OF SCHOOLS AND CHILD CARE FACILI-*
8 *TIES.*—

9 (1) *IN GENERAL.*—*The Administrator shall con-*
10 *duct a national study of the seriousness and extent of*
11 *indoor air contamination in buildings owned by local*
12 *educational agencies and child care facilities.*

13 (2) *ADVISORY GROUP.*—*The Administrator shall*
14 *establish an advisory group composed of representa-*
15 *tives of school administrators, teachers, child care or-*
16 *ganizations, parents and service employees and other*
17 *interested parties, including scientific and technical*
18 *experts familiar with indoor air pollution exposures,*
19 *effects, and controls, to provide guidance and direc-*
20 *tion in the development of the national study.*

21 (3) *REPORT.*—*Not later than 2 years after the*
22 *date of enactment of this Act, the Administrator shall*
23 *provide a report to Congress of the results of the na-*
24 *tional study. The report required by this paragraph*
25 *shall provide such recommendations for activities or*

1 *programs to reduce and avoid indoor air contamina-*
2 *tion in buildings owned by local educational agencies*
3 *and in child care facilities as the Administrator de-*
4 *termines appropriate.*

5 *(e) REPORT TO CONGRESS.—Not later than 2 years*
6 *after the date of enactment of this Act, the Administrator*
7 *shall prepare and submit to Congress a report reviewing*
8 *and assessing issues related to chemical sensitivity dis-*
9 *orders, including multiple chemical sensitivities. The Advi-*
10 *sory Committee established pursuant to section 7(c) shall*
11 *review and comment on the report prior to submittal to*
12 *Congress.*

13 *(f) HEALTHY BUILDINGS BASELINE ASSESSMENT.—*

14 *(1) IN GENERAL.—The Administrator and the*
15 *Director shall conduct research on indoor air quality*
16 *in commercial buildings to develop baseline informa-*
17 *tion on indoor air quality in the buildings.*

18 *(2) REQUIREMENTS OF RESEARCH.—Research*
19 *carried out under this subsection shall comply with*
20 *generally accepted principles of the proper design,*
21 *maintenance, and operation of ventilation, filtration,*
22 *and other building systems.*

23 *(3) PERSONS THAT MAY CONDUCT RESEARCH.—*
24 *The Administrator and the Director may arrange to*
25 *have all or a portion of the research to be carried out*

1 *by appropriate private persons and academic institu-*
2 *tions.*

3 (4) *CONTENTS OF STUDY.*—*The study shall in-*
4 *clude—*

5 (A) *monitoring of respirable particulate*
6 *matter, volatile compounds, biological contami-*
7 *nants, and other contaminants of interest; and*

8 (B) *identification of the sources of indoor*
9 *air contaminants.*

10 (g) *CLARIFICATION OF AUTHORITY.*—*Title IV of the*
11 *Superfund Amendments and Reauthorization Act of 1986*
12 *(42 U.S.C. 7401 note) is repealed.*

13 ***SEC. 6. MANAGEMENT PRACTICES, VOLUNTARY PARTNER-***
14 ***SHIP PROGRAMS, AND VENTILATION STAND-***
15 ***ARDS.***

16 (a) *TECHNOLOGY AND MANAGEMENT PRACTICE AS-*
17 *SESSMENT BULLETINS.*—

18 (1) *IN GENERAL.*—*The Administrator shall pub-*
19 *lish bulletins providing an assessment of technologies*
20 *and management practices for the control and meas-*
21 *urement of contaminants in the air indoors.*

22 (2) *BULLETINS.*—*The bulletins published pursu-*
23 *ant to this subsection shall, at a minimum—*

24 (A) *describe the control or measurement*
25 *technology or practice;*

1 (B) describe the effectiveness of the tech-
2 nology or practice in control or measurement of
3 indoor air contaminants and, to the extent fea-
4 sible, the resulting reduction in risk to human
5 health;

6 (C) assess the feasibility of the application
7 of the technology or practice in buildings of dif-
8 ferent types, sizes, ages, and designs;

9 (D) assess the cost of the application of the
10 technology or practice in buildings of different
11 types, sizes, ages, and designs, including capital
12 and operational costs; and

13 (E) assess any risks to human health that
14 the technology or practice may create.

15 (3) *FORMAT.*—The Administrator shall establish
16 and utilize a standard format for presentation of the
17 technology and management practice assessment bul-
18 letins. The format shall be designed to facilitate as-
19 sessment of technologies or practices by interested par-
20 ties, including homeowners and building owners and
21 managers.

22 (4) *SCHEDULE OF PUBLICATION.*—The Adminis-
23 trator shall provide that, to the extent practicable,
24 bulletins published pursuant to this subsection shall

1 *be published on a schedule consistent with the publi-*
2 *cation of health advisories pursuant to section 7(b).*

3 (5) *PUBLIC REVIEW.*—*In developing bulletins*
4 *pursuant to this subsection, the Administrator shall*
5 *provide for public review and shall consider public*
6 *comment prior to the publication of bulletins. If the*
7 *technology or management practice is expected to*
8 *have significant implications for worker safety or*
9 *health, the Administrator shall consult with the Di-*
10 *rector prior to seeking review and comment.*

11 (6) *DISTRIBUTION.*—*The bulletins published pur-*
12 *suant to this subsection shall be provided to the in-*
13 *door air quality information clearinghouse established*
14 *under section 13 and, to the extent practicable, shall*
15 *be made available to architecture, design, and engi-*
16 *neering firms, building owners and managers, and*
17 *organizations representing the parties.*

18 (b) *VOLUNTARY PARTNERSHIP PROGRAMS.*—

19 (1) *IN GENERAL.*—*The Administrator shall de-*
20 *velop a voluntary partnership program in coopera-*
21 *tion with corporations and other entities that own,*
22 *operate, or occupy buildings.*

23 (2) *PARTNERSHIPS.*—*The Administrator shall*
24 *enter into the voluntary partnerships as an incentive*
25 *to promote the implementation of pollution preven-*

1 *tion, problem mitigation, and energy-wise technology*
2 *strategies in exchange for indoor air quality technical*
3 *support and recognition of the Agency.*

4 (3) *RECOGNITION.—The Administrator may*
5 *award recognition to corporations or other persons*
6 *that comply with management practices that are nec-*
7 *essary to improve air quality.*

8 (c) *MODEL BUILDING MANAGEMENT PRACTICES*
9 *TRAINING.—*

10 (1) *IN GENERAL.—Not later than 1 year after*
11 *the date of enactment of this Act, the Director of the*
12 *National Institute of Occupational Safety and*
13 *Health, in cooperation with the Administrator of the*
14 *General Services Administration and the Adminis-*
15 *trator, shall develop an indoor air training course*
16 *providing training with respect to—*

17 (A) *principles, methods, and techniques re-*
18 *lated to ventilation system operation and main-*
19 *tenance, including applicable ventilation guide-*
20 *lines and standards;*

21 (B) *the maintenance of records concerning*
22 *indoor air quality, including maintenance of*
23 *ventilation systems, complaints of indoor air*
24 *quality, and actions taken to address indoor air*
25 *quality problems;*

1 (C) health threats posed by indoor air con-
2 taminants, including a knowledge of health
3 advisories published pursuant to this Act and
4 other information concerning contaminant levels;

5 (D) identification of potential indoor air
6 contaminant sources and options for reducing
7 exposures to contaminants;

8 (E) special measures that may be necessary
9 to reduce indoor air contaminant exposures in
10 new buildings and in portions of buildings that
11 have been renovated or substantially refurbished
12 within the 6-month period preceding the meas-
13 ures; and

14 (F) special measures that may be necessary
15 to reduce exposures to contaminants associated
16 with pesticide applications, installation of prod-
17 ucts, furnishings, or equipment, and cleaning op-
18 erations.

19 (2) TRAINING COURSES.—Not later than 2 years
20 after the date of enactment of this Act, the Director
21 of the National Institute for Occupational Safety and
22 Health shall provide, or contract for the provision of,
23 training courses pursuant to paragraph (1) sufficient,
24 at a minimum, to ensure training on a schedule con-
25 sistent with the requirements of section 9(f)(2).

1 (3) *FEEES.*—*The Director of the National Insti-*
2 *tute of Occupational Safety and Health, or firms or*
3 *organizations operating under contract with the Ad-*
4 *ministrator of the General Services Administration,*
5 *are authorized to establish a fee for training pursuant*
6 *to this subsection. The fees shall be in an amount not*
7 *to exceed the amount necessary to defray the costs of*
8 *the training program.*

9 (4) *REPORT.*—*Not later than 4 years after the*
10 *date of enactment of this Act, the Director of the Na-*
11 *tional Institute of Occupational Safety and Health,*
12 *in consultation with the Administrator of the General*
13 *Services Administration, and the Administrator, shall*
14 *prepare a report to Congress assessing the training*
15 *program under this subsection and making rec-*
16 *ommendations concerning the application of training*
17 *requirements to classes and types of buildings not cov-*
18 *ered under this subsection.*

19 (d) *VENTILATION PROGRAM.*—

20 (1) *IN GENERAL.*—*The Administrator, in coordi-*
21 *nation with other Federal agencies, shall conduct a*
22 *program to analyze the adequacy of ventilation stand-*
23 *ards and guidelines to protect the public and workers*
24 *from indoor air contaminants.*

1 (2) *DUTIES OF ADMINISTRATOR.*—*The Adminis-*
2 *trator shall—*

3 (A) *identify and describe ventilation stand-*
4 *ards adopted by State and local governments*
5 *and professional organizations, including the*
6 *American Society of Heating, Refrigerating and*
7 *Air Conditioning Engineers;*

8 (B) *determine the adequacy of the standards*
9 *for protecting public health and promoting work-*
10 *er productivity;*

11 (C) *assess the costs of compliance with the*
12 *standards;*

13 (D) *determine the degree to which the*
14 *standards are being adopted and enforced;*

15 (E) *identify the extent to which buildings*
16 *are being operated in a manner that achieves the*
17 *standards; and*

18 (F) *assess the potential for the standards to*
19 *complement controls over specific sources of con-*
20 *taminants in reducing indoor air contamina-*
21 *tion.*

22 **SEC. 7. INDOOR AIR CONTAMINANT HEALTH ADVISORIES.**

23 (a) *LIST OF CONTAMINANTS.*—

24 (1) *IN GENERAL.*—*Not later than 18 months*
25 *after the date of enactment of this Act, the Adminis-*

1 *trator shall prepare and publish in the Federal Reg-*
2 *ister a list of indoor air contaminants (referred to in*
3 *this section as “listed contaminants”). The list may*
4 *include combinations or mixtures of contaminants*
5 *and may refer to the combinations or mixtures by a*
6 *common name.*

7 (2) *REVIEW OF LIST.—The Administrator shall*
8 *from time to time and as necessary to carry out this*
9 *Act, but not less often than biennially, review and re-*
10 *verse the list by adding other contaminants pursuant*
11 *to this Act.*

12 (3) *CONTENTS OF LIST.—The list provided for in*
13 *paragraph (1) shall include, at a minimum, benzene,*
14 *biological contaminants, carbon monoxide, formalde-*
15 *hyde, lead, methylene chloride, nitrogen oxide, partic-*
16 *ulate matter, asbestos, polycyclic aromatic hydro-*
17 *carbons (PAHs), and radon.*

18 (4) *CONSULTATION AND PUBLIC REVIEW.—In de-*
19 *veloping the list provided for in paragraph (1) or in*
20 *revising the list pursuant to paragraph (2), the Ad-*
21 *ministrator shall consult with the advisory panel pro-*
22 *vided for in subsection (c), provide for public review,*
23 *and consider public comment prior to the issuance of*
24 *a final list.*

1 (5) *JUDICIAL INTERPRETATION.*—*The listing of*
2 *contaminants under this subsection shall not be con-*
3 *sidered an agency rulemaking. In considering objec-*
4 *tions raised in any judicial or related action, the de-*
5 *cision of the Administrator to list a particular con-*
6 *taminant shall be upheld unless the objecting party*
7 *demonstrates that the decision was arbitrary or ca-*
8 *pricious or otherwise not in accordance with the law.*
9 *The list of contaminants prepared in accordance with*
10 *this subsection is not intended to indicate that those*
11 *contaminants not listed are safe for human exposure*
12 *or without adverse health effect.*

13 **(b) CONTAMINANT HEALTH ADVISORIES.**—

14 (1) *IN GENERAL.*—*The Administrator shall, in*
15 *consultation with the advisory panel, provided for in*
16 *subsection (c), and after providing for public review*
17 *and comment pursuant to paragraph (6), publish ad-*
18 *visory materials addressing the adverse human health*
19 *effects of listed contaminants.*

20 (2) *CONTENTS OF MATERIALS.*—*The advisory*
21 *materials shall, at a minimum, describe—*

22 (A) *the physical, chemical, biological, and*
23 *radiological properties of the contaminant;*

24 (B) *the adverse human health effects of the*
25 *contaminant in various indoor environments*

1 *and in various concentrations, including the*
2 *health threat to subpopulations that may be espe-*
3 *cially sensitive to exposure to the contaminant;*

4 *(C) the extent to which the contaminant, or*
5 *a mixture of contaminants, is associated with a*
6 *particular substance of material and emissions*
7 *rates that are expected to result in varying levels*
8 *of contaminant concentration in indoor air;*

9 *(D) any Technology and Management Prac-*
10 *tice Assessment Bulletin that is applicable to the*
11 *contaminant and any actions that are identified*
12 *for the contaminant in the National Indoor Air*
13 *Quality Response Plan prepared pursuant to*
14 *this Act; and*

15 *(E) any indoor air contaminant standards*
16 *or related action levels that are in effect under*
17 *any authority of a Federal law or regulation, the*
18 *authority of State laws or regulations, the au-*
19 *thority of any local government, or the authority*
20 *of another country, including standards or ac-*
21 *tion levels suggested by appropriate inter-*
22 *national organizations.*

23 (3) *STATUTORY CONSTRUCTION.—Health*
24 *advisories published pursuant to his section shall in*
25 *no way limit or restrict the application of require-*

1 *ments or standards established under any other Fed-*
2 *eral law.*

3 (4) *FORMAT.*—*The Administrator shall establish*
4 *and utilize a standard format of presentation of in-*
5 *door air contaminant health advisories. The format*
6 *shall be designed to facilitate public understanding of*
7 *the range of risks of exposure to indoor air contami-*
8 *nants and shall include a summary of the research*
9 *and information concerning the contaminant that is*
10 *understandable to public health professionals and to*
11 *individuals who lack training in toxicology.*

12 (5) *SCHEDULE OF PUBLICATION.*—*The Adminis-*
13 *trator shall publish health advisories for listed con-*
14 *taminants as expeditiously as practicable. At a mini-*
15 *imum, the Administrator shall publish not less than 6*
16 *advisories not later than 24 months after the date of*
17 *enactment of this Act and shall publish an additional*
18 *6 advisories not later than 36 months after the date*
19 *of enactment of this Act.*

20 (6) *SCIENTIFIC INFORMATION.*—*Health*
21 *advisories shall be based on sound scientific informa-*
22 *tion that has undergone peer review.*

23 (7) *REVIEW AND REVISION.*—*Health advisories*
24 *shall be reviewed, revised, and republished to reflect*

1 *new scientific information on a periodic basis but not*
2 *less frequently than every 5 years.*

3 (8) *REVIEW AND COMMENT.*—*In developing and*
4 *revising health advisories pursuant to this subsection,*
5 *the Administrator shall provide for public review and*
6 *comment, including providing notice in the Federal*
7 *Register of the intent to publish a health advisory not*
8 *later than 90 days prior to publication, and shall*
9 *consider public comment prior to issuance of an advi-*
10 *sory.*

11 (c) *ADVISORY PANEL.*—*The Indoor Air Quality and*
12 *Total Human Exposure Committee of the Environmental*
13 *Protection Agency Science Advisory Board shall advise the*
14 *Administrator with respect to the implementation of this*
15 *section, including the listing of contaminants, the contami-*
16 *nants for which advisories should be published, the order*
17 *in which advisories should be published, the content, qual-*
18 *ity, and format of advisory documents, and the revision of*
19 *the documents. The Administrator shall provide that a rep-*
20 *resentative of each of the Agency for Toxic Substances and*
21 *Disease Registry, the Office of Health and Environmental*
22 *Research of the Department of Energy, the National Insti-*
23 *tute for Occupational Safety and Health, and the National*
24 *Institute for Environmental Health Sciences shall partici-*

1 *pate in the work of the Advisory Panel as ex officio mem-*
2 *bers.*

3 **SEC. 8. NATIONAL INDOOR AIR QUALITY RESPONSE PLAN.**

4 (a) *AUTHORITY.*—*The Administrator shall, in coordi-*
5 *nation with other appropriate Federal agencies, develop*
6 *and publish a national indoor air quality response plan.*
7 *The response plan shall provide for the implementation of*
8 *a range of response actions identified in subsections (b) and*
9 *(c) that will result in the reduction of human exposure to*
10 *indoor air contaminants listed pursuant to section 7(a) and*
11 *the attainment, to the fullest extent practicable, of indoor*
12 *air contaminant levels that are protective of human health.*

13 (b) *EXISTING AUTHORITY.*—*The Administrator, in co-*
14 *ordination with other appropriate Federal agencies, shall*
15 *include in the plans provided for in subsection (a) a de-*
16 *scription of specific response actions to be implemented*
17 *based on existing authorities provided in—*

18 (1) *the Clean Air Act (42 U.S.C. 7401 et seq.);*

19 (2) *the Toxic Substances Control Act (15 U.S.C.*
20 *201 et seq.);*

21 (3) *the Federal Insecticide, Fungicide, and*
22 *Rodenticide Act (7 U.S.C. 136 et seq.);*

23 (4) *title XIV of the Public Health Service Act*
24 *(commonly known as the “Safe Drinking Water Act”)*
25 *(42 U.S.C. 300f et seq.);*

1 (5) *the authorities of the Consumer Product*
2 *Safety Commission;*

3 (6) *the authorities of the Occupational Safety*
4 *and Health Administration and the National Insti-*
5 *tute for Occupational Safety and Health; and*

6 (7) *other regulatory and related authorities pro-*
7 *vided under any other Federal law.*

8 *In implementing response actions pursuant to paragraph*
9 *(6), the Assistant Secretary for Occupational Safety and*
10 *Health shall consult with representatives and employees of*
11 *State and local governments with respect to States over*
12 *which the Occupational Safety and Health Administration*
13 *lacks jurisdiction over State and local employees.*

14 (c) *SUPPORTING ACTIONS.*—*The Administrator, in co-*
15 *ordination with the heads of other appropriate Federal*
16 *agencies, shall include in the plans provided for in sub-*
17 *section (a) a description of specific supporting actions, in-*
18 *cluding, but not limited to—*

19 (1) *programs to disseminate technical informa-*
20 *tion to public health, design, and construction profes-*
21 *sionals concerning the risks of exposure to indoor air*
22 *contaminants and methods and programs for reduc-*
23 *ing exposure to the contaminants;*

24 (2) *the development of guidance documents ad-*
25 *ressing individual contaminants, groups of contami-*

1 *nants, sources of contaminants, or types of buildings*
2 *or structures and providing information on measures*
3 *to reduce exposure to contaminants, including—*

4 *(A) the estimated cost of the measures;*

5 *(B) the technologic feasibility of the meas-*
6 *ures; and*

7 *(C) the effectiveness and efficiency of the*
8 *measures;*

9 *(3) education programs for the general public*
10 *concerning the health threats posed by indoor air con-*
11 *taminants and appropriate individual response ac-*
12 *tions;*

13 *(4) technical assistance, including the design and*
14 *implementation of training seminars for State and*
15 *local officials, private and professional firms, and*
16 *labor organizations dealing with indoor air pollution*
17 *and addressing topics such as monitoring, analysis,*
18 *mitigation, building management practices, ventila-*
19 *tion, health effects, public information, and program*
20 *design;*

21 *(5) the development of model building codes, in-*
22 *cluding ventilation rates, for various types of build-*
23 *ings designed to reduce levels of indoor air contami-*
24 *nants;*

1 (6) *the identification of contaminants, or cir-*
2 *cumstances of contamination for which immediate ac-*
3 *tion to protect public and worker health is necessary*
4 *and appropriate and a description of the actions*
5 *needed;*

6 (7) *the identification of contaminants, or cir-*
7 *cumstances of contamination, in cases in which regu-*
8 *latory or statutory authority is not adequate to ad-*
9 *dress an identified contaminant or circumstance of*
10 *contamination and recommendation of legislation to*
11 *provide needed authority;*

12 (8) *the identification of contaminants, or cir-*
13 *cumstances of contamination, in cases in which the*
14 *continued reduction of contamination requires devel-*
15 *opment of technology or technological mechanisms;*
16 *and*

17 (9) *the identification of remedies to the “sick*
18 *building syndrome”, including proper design and*
19 *maintenance of ventilation systems, building con-*
20 *struction and remodeling practices, and safe practices*
21 *for the application of pesticides, herbicides, and dis-*
22 *infectants, and a standardized protocol for investigat-*
23 *ing and solving indoor air quality problems in sick*
24 *buildings.*

1 (d) *CONTENTS OF PLAN.*—In describing specific ac-
2 tions to be taken under subsections (b) and (c), the Adminis-
3 trator, in coordination with the heads of other appropriate
4 Federal agencies, shall—

5 (1) identify the health effects, and any contami-
6 nant or contaminants thought to cause health effects
7 to be addressed by a particular action and to the full-
8 est extent feasible, the relative contribution to indoor
9 air contamination from all sources of contamination;

10 (2) identify the statutory basis for the action;

11 (3) identify the schedule and process for imple-
12 mentation of the action;

13 (4) identify the Federal agency with jurisdiction
14 for the specific action that will implement the action;
15 and

16 (5) identify the financial resources needed to im-
17 plement the specific action and the source of the re-
18 sources.

19 (e) *SCHEDULE.*—Response plans provided for in sub-
20 section (a) shall be submitted to Congress not later than
21 2 years after the date of enactment of this Act, and bienni-
22 ally thereafter.

23 (f) *REVIEW.*—

24 (1) *IN GENERAL.*—The Administrator shall pro-
25 vide for public review and comment on the response

1 *plan provided for in this section, including provision*
2 *of notice in the Federal Register for public review and*
3 *comment not later than 90 days prior to submission*
4 *to Congress. The Administrator shall include in the*
5 *response plan a summary of public comments.*

6 (2) *REVIEW BY COUNCIL.—The Administrator*
7 *shall provide for the review and comment on the re-*
8 *sponse plan by the Council on Indoor Air Quality*
9 *provided for under section 12.*

10 (g) *REPORTS IN PLAN.—*

11 (1) *MONITORING AND MITIGATION SERVICES.—In*
12 *the first plan published pursuant to this section shall*
13 *include an assessment and report on indoor air mon-*
14 *itoring and mitigation services provided by private*
15 *firms and other organizations, including the range of*
16 *the services, the reliability and accuracy of the serv-*
17 *ices, and the relative costs of the services. The assess-*
18 *ment shall include a review and analysis of options*
19 *for oversight of indoor air monitoring and mitigation*
20 *firms and organizations, including registration, li-*
21 *icensing, and certification of the firms and organiza-*
22 *tions and options for imposing a user fee on the firms*
23 *and organizations.*

24 (2) *VENTILATION PROGRAM.—The first plan pub-*
25 *lished pursuant to this section shall include an assess-*

1 *ment and report on the ventilation program carried*
2 *out under this Act, including recommendations con-*
3 *cerning—*

4 *(A) the establishment of ventilation stand-*
5 *ards that protect public health and worker health*
6 *and take into account comfort and energy con-*
7 *servation goals; and*

8 *(B) ensuring that adequate ventilation*
9 *standards are being adopted and that buildings*
10 *are being operated in a manner that achieves*
11 *standards.*

12 *(3) INDOOR PLANTS.—The first plan published*
13 *pursuant to this section shall include an assessment*
14 *and report on the research program authorized under*
15 *section 5(b)(20). In preparing the report, the Admin-*
16 *istrator shall consult with the Administrator of the*
17 *National Aeronautics and Space Administration.*

18 **SEC. 9. FEDERAL BUILDING RESPONSE PLAN AND DEM-**
19 **ONSTRATION PROGRAM.**

20 *(a) AUTHORITY.—The Administrator and the Admin-*
21 *istrator of the General Services Administration shall de-*
22 *velop and implement a program to respond to and reduce*
23 *indoor air contamination in Federal buildings and to dem-*
24 *onstrate methods of reducing indoor air contamination in*
25 *new Federal buildings.*

1 (b) *FEDERAL BUILDING RESPONSE PLAN.*—

2 (1) *IN GENERAL.*—*The Administrator of the*
3 *General Services Administration, in consultation*
4 *with the Administrator, the Assistant Secretary for*
5 *Occupational Safety and Health Administration, the*
6 *Director, and the heads of affected Federal depart-*
7 *ments or agencies shall prepare response plans ad-*
8 *dresssing indoor air quality in Federal buildings. The*
9 *plans shall, to the fullest extent practicable, be devel-*
10 *oped in conjunction with response plans developed*
11 *pursuant to section 8.*

12 (2) *CONTENTS OF RESPONSE PLAN.*—*The re-*
13 *sponse plan shall provide for the implementation of a*
14 *range of response actions that will result in the reduc-*
15 *tion of human exposure to indoor air contaminants*
16 *listed pursuant to section 7(a), and the attainment,*
17 *to the fullest extent practicable, of indoor air con-*
18 *taminant concentration levels that are protective of*
19 *public and worker health.*

20 (3) *REQUIREMENTS FOR RESPONSE PLAN.*—*Each*
21 *Federal building response plan provided for in para-*
22 *graph (1) shall include—*

23 (A) *a list of all Federal buildings;*

24 (B) *a description and schedule of general*
25 *response actions, including general building*

1 *management practices, product purchase guide-*
2 *lines, air quality problem identification prac-*
3 *tices and methods, personnel training programs,*
4 *and other actions to be implemented to reduce*
5 *exposures to indoor air contaminants in the*
6 *buildings listed pursuant to subparagraph (A);*

7 *(C) a list of individual Federal buildings*
8 *listed pursuant to subparagraph (A) for which*
9 *there is sufficient evidence of indoor air contami-*
10 *nation or related employee health effects to war-*
11 *rant assessment of the building pursuant to sec-*
12 *tion 14 and a schedule for the development and*
13 *submittal of building assessment proposals pur-*
14 *suant to section 14(d);*

15 *(D) a description and schedule of specific*
16 *response actions to be implemented in each spe-*
17 *cific building identified in subparagraph (C)*
18 *and assessed pursuant to section 14;*

19 *(E) an identification of the Federal agency*
20 *responsible for the funding and implementation*
21 *of each response action identified in subpara-*
22 *graphs (B) and (D); and*

23 *(F) an identification of the estimated costs*
24 *of each response action identified in subpara-*

1 *graphs (B) and (D) and the source of resources*
2 *to cover the costs.*

3 (4) *REQUIREMENT FOR RESPONSE PLAN.—The*
4 *response plan provided for in this subsection shall ad-*
5 *dress each Federal building identified in paragraph*
6 *(3)(A), except that a specific building may be exempt-*
7 *ed from coverage under this subsection. A building*
8 *may be exempted on the grounds of—*

9 (A) *national security;*

10 (B) *the anticipated demolition or termi-*
11 *nation of Federal ownership not later than 3*
12 *years after the exemption; and*

13 (C) *a specialized use of a building that pre-*
14 *cludes necessary actions to reduce indoor air*
15 *contamination.*

16 (5) *SUBMISSION TO CONGRESS.—The plan pro-*
17 *vided for in this subsection shall be submitted to Con-*
18 *gress not later than 2 years after the date of enact-*
19 *ment of this Act, and biennially thereafter.*

20 (6) *PUBLIC REVIEW AND COMMENT.—The Ad-*
21 *ministrator of the General Services Administration*
22 *shall provide for public review and comment on the*
23 *response plan provided for in this section, including*
24 *the provision of notice in the Federal Register, not*

1 *later than 90 days prior to the submission to Con-*
2 *gress of the plan.*

3 (7) *PUBLIC COMMENTS.*—*The response plan shall*
4 *include a summary of public comments. The Council*
5 *on Indoor Air Quality provided for under section 12*
6 *shall review and comment on the plan.*

7 (c) *INDOOR AIR QUALITY RESERVE.*—

8 (1) *IN GENERAL.*—*The Administrator of the*
9 *General Services Administration shall reserve 0.5 per-*
10 *cent of any funds used for the construction of new*
11 *Federal buildings for the design and construction of*
12 *measures to reduce indoor air contaminant concentra-*
13 *tions within the buildings.*

14 (2) *MEASURES THAT MAY BE FUNDED.*—*The*
15 *measures that may be funded with the reserve pro-*
16 *vided for in this subsection include—*

17 (A) *the development and implementation of*
18 *general design principles intended to avoid or*
19 *prevent contamination of indoor air;*

20 (B) *the design and construction of improved*
21 *ventilation techniques or equipment;*

22 (C) *the development and implementation of*
23 *product purchasing guidelines;*

24 (D) *the design and construction of contami-*
25 *nant detection and response systems;*

1 (E) the development of building manage-
2 ment guidelines and practices; and

3 (F) training in building and systems oper-
4 ations for building management and mainte-
5 nance personnel.

6 (3) *REPORT.*—On completion of construction of
7 each Federal building covered by this section, the Ad-
8 ministrator of the General Services Administration
9 shall file with the Administrator, the clearinghouse es-
10 tablished under section 13, and the Council estab-
11 lished under section 12, a report describing the uses
12 made of the reserve provided for in this subsection.
13 The report shall be in sufficient detail to provide de-
14 sign and construction professionals with models and
15 general plans of various indoor air contaminant re-
16 duction measures adequate to assess the appropriate-
17 ness of the measures for application in other build-
18 ings.

19 (4) *EXEMPTIONS.*—The Administrator of the
20 General Services Administration, with the concur-
21 rence of the Administrator, may exempt a planned
22 Federal building from the requirements of this sub-
23 section if the Administrator of the General Services
24 Administration finds that the exemption is required
25 on the grounds of national security or that the in-

1 *tended use of the building is not compatible with this*
2 *section.*

3 (d) *NEW ENVIRONMENTAL PROTECTION AGENCY*
4 *BUILDINGS.—Any new building constructed for use by the*
5 *Agency as headquarters shall be designed, constructed,*
6 *maintained, and operated as a model to demonstrate prin-*
7 *ciples and practices for the protection of indoor air quality.*

8 (e) *BUILDING COMMENTS.—*

9 (1) *IN GENERAL.—The Administrator of the*
10 *General Services Administration, in consultation*
11 *with the Administrator, the Assistant Secretary for*
12 *Occupational Safety and Health Administration, and*
13 *the Director, shall provide, by regulation, a method*
14 *and format for filing and responding to comments*
15 *and complaints concerning indoor air quality in Fed-*
16 *eral buildings by workers in the buildings and by the*
17 *public. The procedure for filing and responding to*
18 *worker complaints shall supplement and not diminish*
19 *or supplant existing practices or procedures estab-*
20 *lished under the Occupational Safety and Health Act*
21 *of 1970 (29 U.S.C. 651 et seq.) and executive orders*
22 *pertaining to health and safety for Federal employees.*

23 (2) *LISTING OF FILINGS.—A listing of each filing*
24 *and an analysis of the filing shall be included in each*
25 *response plan prepared pursuant to this section. The*

1 *listing shall preserve the confidentiality of individuals*
2 *making filings under this section.*

3 (3) *REGULATIONS.—The regulations implement-*
4 *ing this subsection shall be issued at the earliest prac-*
5 *ticable date, but not later than 2 years after the date*
6 *of enactment of this Act.*

7 (f) *BUILDING VENTILATION AND MANAGEMENT TRAIN-*
8 *ING.—*

9 (1) *IN GENERAL.—Not later than 180 days after*
10 *the date of enactment of this Act, the Administrator*
11 *of the General Services Administration shall des-*
12 *ignate, or require that a lessee designate, an Indoor*
13 *Air Quality Coordinator for each Federal building*
14 *that is owned or leased by the General Services Ad-*
15 *ministration.*

16 (2) *SCHEDULE FOR COMPLETION OF TRAINING*
17 *COURSES.—Not later than 4 years after the date of*
18 *enactment of this Act, each Indoor Air Quality Coor-*
19 *dinator shall complete the indoor air training course*
20 *operated pursuant to section 6(b). Beginning on the*
21 *date that is 3 years after the date of enactment of this*
22 *Act, each newly designated Indoor Air Quality Coor-*
23 *dinator shall complete the indoor air training course*
24 *not later than 1 year after designation.*

1 (3) *FAILURE TO DESIGNATE AN INDOOR AIR*
2 *QUALITY COORDINATOR.*—*If the Administrator of the*
3 *General Services Administration finds that a lessee*
4 *has failed to designate and train an Indoor Air Qual-*
5 *ity Coordinator pursuant to the requirements of this*
6 *Act, the Administrator of the General Services Ad-*
7 *ministration may not reestablish a lease for the build-*
8 *ing.*

9 **SEC. 10. STATE AND LOCAL INDOOR AIR QUALITY PRO-**
10 **GRAMS.**

11 (a) *MANAGEMENT AND ASSESSMENT STRATEGY DEM-*
12 *ONSTRATION.*—

13 (1) *IN GENERAL.*—*The Governor of a State may*
14 *apply to the Administrator for a grant to support*
15 *demonstration of the development and implementa-*
16 *tion of a management strategy and assessment with*
17 *respect to indoor air quality within the State.*

18 (2) *STRATEGIES.*—*Each State indoor air quality*
19 *management strategy shall—*

20 (A) *identify a lead agency and provide an*
21 *institutional framework for protection of indoor*
22 *air quality;*

23 (B) *identify and describe existing programs,*
24 *controls, or related activities concerning indoor*
25 *air quality within State agencies, including reg-*

1 *ulations, educational programs, assessment pro-*
2 *grams, or other activities;*

3 *(C) identify and describe existing programs,*
4 *controls, or related activities concerning indoor*
5 *air quality of local and other sub-State agencies*
6 *and ensure coordination among local, State, and*
7 *Federal agencies involved in indoor air quality*
8 *activities in the State; and*

9 *(D) ensure the coordination of indoor air*
10 *quality programs with ambient air quality pro-*
11 *grams and related activities.*

12 *(3) ASSESSMENT PROGRAMS.—Each State indoor*
13 *air quality assessment program shall—*

14 *(A) identify indoor air contaminants of*
15 *concern and, to the extent practicable, assess the*
16 *seriousness and the extent of indoor air contami-*
17 *nation by contaminants listed in section 7(a);*

18 *(B) identify the classes or types of buildings*
19 *or other indoor environments in which indoor*
20 *air contaminants pose the most serious threat to*
21 *human health;*

22 *(C) if applicable, identify geographic areas*
23 *in the State where there is a reasonable likeli-*
24 *hood of indoor air contamination as a result of*

1 *the presence of contaminants in the ambient air*
2 *or the existence of sources of a contaminant;*

3 *(D) identify methods and procedures for in-*
4 *door air contaminant assessment and monitor-*
5 *ing;*

6 *(E) provide for periodic assessments of in-*
7 *door air quality and identification of indoor air*
8 *quality changes and trends; and*

9 *(F) establish methods to provide informa-*
10 *tion concerning indoor air contamination to the*
11 *public and to educate the public and interested*
12 *groups, including building owners and design*
13 *and engineering professionals, about indoor air*
14 *contamination.*

15 *(4) STATE AUTHORITY.—As part of a manage-*
16 *ment strategy and assessment under this subsection,*
17 *the applicant may develop contaminant action levels,*
18 *guidance, or standards and may draw on health*
19 *advisories developed pursuant to section 7.*

20 *(5) REQUIREMENTS FOR STATES.—Each State*
21 *that is selected to demonstrate the development of*
22 *management and assessment strategies shall provide*
23 *to the Administrator a management strategy and as-*
24 *essment pursuant to paragraphs (2) and (3) not*
25 *later than 3 years after the date of selection and shall*

1 *certify to the Administrator that the strategy and as-*
2 *essment meet the requirements of this Act.*

3 (6) *PUBLIC REVIEW AND COMMENT.*—*Each State*
4 *referred to in paragraph (5) shall provide for public*
5 *review and comment on the management strategy and*
6 *assessment prior to submission of the strategy and as-*
7 *essment to the Administrator.*

8 (b) *RESPONSE PROGRAMS.*—

9 (1) *IN GENERAL.*—*A Governor of a State or the*
10 *executive officer of a local air pollution control agency*
11 *may apply to the Administrator for grant assistance*
12 *to develop a response program designed to reduce*
13 *human exposure to an indoor air contaminant or*
14 *contaminants in the State, a specific class or type of*
15 *building in that State, or a specific geographic area*
16 *of that State.*

17 (2) *REQUIREMENTS FOR RESPONSE PROGRAM.*—
18 *A response program shall—*

19 (A) *address a contaminant or contaminants*
20 *listed pursuant to section 7(a);*

21 (B) *identify existing data and information*
22 *concerning the contaminant or contaminants to*
23 *be addressed, the class or type of building to be*
24 *addressed, and the specific geographic area to be*
25 *addressed;*

1 (C) describe and schedule the specific ac-
2 tions to be taken to reduce human exposure to
3 the identified contaminant or contaminants, in-
4 cluding the adoption and enforcement of any
5 ventilation standards;

6 (D) identify the State or local agency or
7 public organization that will implement the re-
8 sponse actions;

9 (E) identify the Federal, State, and local fi-
10 nancial resources to be used to implement the re-
11 sponse program; and

12 (F) provide for the assessment of the effec-
13 tiveness of the response program.

14 (3) *STATE AUTHORITY.*—As part of a response
15 program pursuant to this subsection, an applicant
16 may develop contaminant action levels, guidance, or
17 standards based on health advisories developed pursu-
18 ant to section 7.

19 (4) *VENTILATION RATES.*—As part of a response
20 program established pursuant to this subsection, an
21 applicant may develop a standard establishing 1 or
22 more ventilation rates for a class or classes of build-
23 ings. The standard shall include development of the
24 assessment and compliance programs needed to imple-
25 ment the standard.

1 (5) *RESPONSE PLANS.*—As part of a response
2 program established pursuant to this subsection, an
3 applicant may develop a response plan addressing in-
4 door air quality in State and local government build-
5 ings. The plan shall, to the fullest extent practicable,
6 be consistent with response plans developed pursuant
7 to section 9.

8 (c) *GRANT MANAGEMENT.*—

9 (1) *AMOUNT.*—The amount of each grant made
10 under subsection (a)(1) shall not be less than \$75,000
11 for each fiscal year.

12 (2) *SELECTION CRITERIA.*—In selecting States
13 for the demonstration and implementation of manage-
14 ment strategies and assessments under subsection
15 (a)(1), the Administrator shall consider—

16 (A) the previous experience of a State in
17 addressing indoor air quality issues;

18 (B) the seriousness of the indoor air quality
19 issues identified by the State; and

20 (C) the potential for demonstration of inno-
21 vative management or assessment measures that
22 may be of use to other States.

23 (3) *FOCUS OF RESOURCES.*—In selecting States
24 for the demonstration of management strategies and
25 assessments under subsection (a)(1), the Adminis-

1 *trator shall focus resources to ensure that sufficient*
2 *funds are available to selected States to provide for*
3 *the development of comprehensive and thorough man-*
4 *agement strategies and assessments in each selected*
5 *State and to adequately demonstrate the implementa-*
6 *tion of the strategies and assessments.*

7 (4) *AMOUNT.—The amount of each grant made*
8 *under subsection (b)(1) shall not exceed \$250,000 for*
9 *each fiscal year and shall be available to the State for*
10 *a period of not to exceed 3 years.*

11 (5) *SELECTION CRITERIA.—In selecting response*
12 *programs developed under subsection (b) for grant as-*
13 *sistance, the Administrator shall consider—*

14 (A) *the potential for the response program*
15 *to bring about reductions in indoor air contami-*
16 *nant levels;*

17 (B) *the contaminants to be addressed, giv-*
18 *ing priority to contaminants for which health*
19 *advisories have been developed pursuant to sec-*
20 *tion 207;*

21 (C) *the type of building to be addressed, giv-*
22 *ing priority to building types in which substan-*
23 *tial human exposures to indoor air contaminants*
24 *occur;*

1 (D) the potential for development of innova-
2 tive response measures or methods that may be
3 of use to other States or local air pollution con-
4 trol agencies; and

5 (E) the State indoor air quality manage-
6 ment strategy and assessment, giving priority to
7 States with complete indoor air management
8 strategies and assessments.

9 (6) FEDERAL SHARE.—The Federal share of each
10 grant made under subsections (a) and (b) shall not
11 exceed 75 per cent of the costs incurred in the dem-
12 onstration and implementation of the activities and
13 shall be made on the condition that the non-Federal
14 share is provided from non-Federal funds.

15 (7) AVAILABILITY OF FUNDS.—Funds awarded
16 as a grant pursuant to subsections (a) and (b) for a
17 fiscal year shall remain available for obligation for
18 the next fiscal year following the fiscal year in which
19 the funds are obligated and for the next following fis-
20 cal year.

21 (8) RESTRICTION.—No grant shall be made
22 under this section for any fiscal year to a State or
23 local air pollution control agency that in the preced-
24 ing year received a grant under this section unless the
25 Administrator determines that the agency satisfac-

1 *torily implemented the grant activities in the preced-*
2 *ing fiscal year.*

3 (9) *INFORMATION.*—*States and air pollution*
4 *control agencies shall provide such information in ap-*
5 *plications for grant assistance and pertaining to*
6 *grant funded activities as the Administrator requires.*

7 **SEC. 11. OFFICE OF RADIATION AND INDOOR AIR.**

8 (a) *ESTABLISHMENT.*—*The Administrator shall estab-*
9 *lish an Office of Radiation and Indoor Air within the Office*
10 *of Air and Radiation of the Agency.*

11 (b) *RESPONSIBILITIES.*—*The Office of Radiation and*
12 *Indoor Air shall—*

13 (1) *list indoor air contaminants and develop*
14 *health advisories pursuant to section 7;*

15 (2) *develop national indoor air quality response*
16 *plans as provided for in section 8;*

17 (3) *manage Federal grant assistance provided to*
18 *air pollution control agencies under section 10;*

19 (4) *ensure the coordination of Federal laws and*
20 *programs administered by the Agency relating to in-*
21 *door air quality and reduce duplication or inconsist-*
22 *encies among the programs;*

23 (5) *work with other Federal agencies, including*
24 *the Occupational Safety and Health Administration*
25 *and the National Institute for Occupational Safety*

1 *and Health, to ensure the effective coordination of*
2 *programs related to indoor air quality; and*

3 *(6) work with public interest groups, labor orga-*
4 *nizations, and the private sector in development of in-*
5 *formation related to indoor air quality, including the*
6 *health threats of human exposure to indoor air con-*
7 *taminants, the development of technologies and meth-*
8 *ods to control the contaminants, and the development*
9 *of programs to reduce contaminant concentrations.*

10 **SEC. 12. COUNCIL ON INDOOR AIR QUALITY.**

11 *(a) AUTHORITY.—There is established a Council on In-*
12 *door Air Quality.*

13 *(b) RESPONSIBILITIES.—The Council on Indoor Air*
14 *Quality shall—*

15 *(1) provide for the full and effective coordination*
16 *of Federal agency activities relating to indoor air*
17 *quality;*

18 *(2) provide a forum for the resolution of conflicts*
19 *or inconsistencies in policies or programs related to*
20 *indoor air quality;*

21 *(3) review and comment on the national indoor*
22 *air quality response program developed pursuant to*
23 *section 8 and the Federal building response plans de-*
24 *veloped pursuant to section 9(b); and*

1 (4) *prepare a report to Congress pursuant to*
2 *subsection (d).*

3 (c) *ORGANIZATION.—*

4 (1) *IN GENERAL.—The Council on Indoor Air*
5 *Quality shall include a senior representative of each*
6 *Federal agency involved in indoor air quality pro-*
7 *grams, including—*

8 (A) *the Agency;*

9 (B) *the Occupational Safety and Health*
10 *Administration;*

11 (C) *the National Institute of Occupational*
12 *Safety and Health;*

13 (D) *the Department of Health and Human*
14 *Services;*

15 (E) *the Department of Housing and Urban*
16 *Development;*

17 (F) *the Department of Energy;*

18 (G) *the Department of Transportation;*

19 (H) *the Consumer Product Safety Commis-*
20 *sion; and*

21 (I) *the General Services Administration.*

22 (2) *CHAIRPERSON.—The representative of the*
23 *Agency shall serve as the Chairperson of the Council.*

24 (3) *STAFF.—The Council shall be served by a*
25 *staff that shall include an Executive Director and not*

1 *less than 3 full-time equivalent employees who shall*
2 *be employees of the Agency.*

3 **SEC. 13. INDOOR AIR QUALITY INFORMATION CLEARING-**
4 **HOUSE.**

5 (a) *NATIONAL INDOOR AIR QUALITY CLEARING-*
6 *HOUSE.—The Administrator shall establish a national in-*
7 *door air quality clearinghouse to be used to disseminate in-*
8 *door air quality information to other Federal agencies,*
9 *State, and local governments, and private organizations*
10 *and individuals.*

11 (b) *FUNCTIONS.—The clearinghouse shall be a reposi-*
12 *tory for reliable indoor air quality related information to*
13 *be collected from and made available to government agen-*
14 *cies and private organizations and individuals. At a mini-*
15 *mum, the clearinghouse established by this section shall*
16 *make available reports, programs, and materials developed*
17 *pursuant to this Act.*

18 (c) *HOTLINE.—The clearinghouse shall operate a toll-*
19 *free hotline on indoor air quality that shall be available*
20 *to provide to the public general information about indoor*
21 *air quality and general guidance concerning response to in-*
22 *door air quality problems.*

23 (d) *CONTRACTUAL AGREEMENT.—The Administrator*
24 *may provide for the design, development, and implementa-*
25 *tion of the clearinghouse through a contractual agreement.*

1 **SEC. 14. BUILDING ASSESSMENT DEMONSTRATION.**

2 (a) *AUTHORITY.*—

3 (1) *IN GENERAL.*—*The Director of the National*
4 *Institute for Occupational Safety and Health shall, in*
5 *consultation with the Administrator, implement a*
6 *Building Assessment Demonstration Program to sup-*
7 *port the development of methods, techniques, and pro-*
8 *ocols for the assessment of indoor air quality in*
9 *nonresidential, nonindustrial buildings and to pro-*
10 *vide assistance and guidance to building owners and*
11 *occupants on measures to improve air quality.*

12 (2) *ONSITE ASSESSMENTS.*—*In implementing*
13 *this section, the Director shall have the authority to*
14 *conduct onsite assessments of individual buildings,*
15 *including Federal, State, and municipal buildings.*

16 (3) *STATUTORY CONSTRUCTION.*—*Nothing in this*
17 *section shall in any way limit or constrain existing*
18 *authorities under the Occupational Safety and Health*
19 *Act of 1970 (29 U.S.C. 651 et seq.).*

20 (b) *ASSESSMENT ELEMENTS.*—*Assessments of individ-*
21 *uals buildings conducted pursuant to this section shall, at*
22 *a minimum, provide—*

23 (1) *an identification of suspected building condi-*
24 *tions or contaminants (or both) and the magnitude of*
25 *the conditions or contaminants;*

1 (2) *an assessment of the probable sources of con-*
2 *taminants in the air in the building;*

3 (3) *a review of the nature and extent of health*
4 *concerns and symptoms identified by building occu-*
5 *pants;*

6 (4) *an assessment of the probable association of*
7 *indoor air contaminants with the health and related*
8 *concerns of building occupants, including an assess-*
9 *ment of occupational and environmental factors that*
10 *may relate to the health concerns;*

11 (5) *an identification of appropriate measures to*
12 *control contaminants in the air in the building, to re-*
13 *duce the concentration levels of contaminants, and to*
14 *reduce exposure to contaminants; and*

15 (6) *an evaluation of the effectiveness of response*
16 *measures in the control and reduction of contami-*
17 *nants and contaminant levels, the change in occupant*
18 *health concerns and symptoms, the approximate costs*
19 *of the measures, and any additional response meas-*
20 *ures that may reduce health concerns of occupants.*

21 (c) *ASSESSMENT REPORTS.—*

22 (1) *IN GENERAL.—The Director shall prepare—*

23 (A) *a preliminary report of each building*
24 *assessment that shall document findings concern-*

1 *ing assessment elements in paragraphs (1)*
2 *through (5) of subsection (b); and*

3 *(B) a final report that shall provide an*
4 *overall summary of the building assessment, in-*
5 *cluding information on the effectiveness and cost*
6 *of response measures, and the potential for ap-*
7 *plication of response measures to other buildings.*

8 *(2) SCHEDULE OF REPORTS.—Each preliminary*
9 *assessment report shall be prepared not later than 180*
10 *days after the selection of a building for assessment.*
11 *A final assessment report shall be prepared not later*
12 *than 180 days after completion of a preliminary re-*
13 *port.*

14 *(3) AVAILABILITY OF REPORTS.—Preliminary*
15 *and final reports shall be made available to building*
16 *owners, occupants, and the authorized representatives*
17 *of occupants.*

18 *(d) BUILDING ASSESSMENT PROPOSAL.—*

19 *(1) IN GENERAL.—The Director shall consider*
20 *individual buildings for assessment under this section*
21 *in response to a proposal identifying a building and*
22 *the building owner and providing preliminary, back-*
23 *ground information about the nature of the indoor air*
24 *contamination, previous response to air contamina-*

1 *tion problems, and the characteristics, occupancy, and*
2 *uses of the building.*

3 (2) *BUILDING ASSESSMENT PROPOSALS.—A*
4 *Building assessment proposal may be submitted by a*
5 *building owner or occupants or the authorized rep-*
6 *resentatives of building occupants, including the au-*
7 *thorized representatives of employees working in a*
8 *building.*

9 (e) *BUILDING ASSESSMENT SELECTION.—*

10 (1) *IN GENERAL.—In selecting buildings to be*
11 *assessed under this section, the Director shall con-*
12 *sider—*

13 (A) *the seriousness and extent of apparent*
14 *indoor air contamination and human health ef-*
15 *fects of the contamination;*

16 (B) *the proposal for a building assessment*
17 *submitted pursuant to subsection (d);*

18 (C) *the views and comments of the building*
19 *owners;*

20 (D) *the potential for the building assess-*
21 *ment to expand knowledge of building assessment*
22 *methods, including identification of contami-*
23 *nants and other relevant building conditions, as-*
24 *essment of sources, and development of response*
25 *measures; and*

1 (E) the listing of a building pursuant to
2 section 9(b)(3)(C).

3 (2) *PRELIMINARY RESPONSE.*—The Director
4 shall provide a preliminary response and review of
5 building assessment proposals to applicants and the
6 applicable building owner not later than 60 days
7 after receipt of a proposal and, to the extent prac-
8 ticable, shall provide a final decision concerning selec-
9 tion of a proposal not later than 120 days after the
10 submittal of the proposal.

11 (f) *BUILDING ASSESSMENT SUPPORT.*—

12 (1) *IN GENERAL.*—The Director may enter into
13 agreements with private individuals, firms, State and
14 local governments, or academic institutions for serv-
15 ices and related assistance in conduct of assessments
16 under this section.

17 (2) *OTHER FEDERAL AGENCIES.*—The Director
18 may enter into agreements with any other Federal
19 agency for the assignment of Federal employees to a
20 specific building assessment project for a period of not
21 to exceed 180 days.

22 (g) *SUMMARY REPORT.*—

23 (1) *IN GENERAL.*—The Director shall provide, on
24 an annual basis, a report on the implementation of
25 this section to the Administrator and to the Council

1 *on Indoor Air Quality established pursuant to section*
2 *12.*

3 (2) *GENERAL REPORTS.—The Director shall,*
4 *from time to time and in consultation with the Ad-*
5 *ministrator, publish general reports containing mate-*
6 *rials, information, and general conclusions concern-*
7 *ing assessments conducted pursuant to this section.*
8 *The reports may address concerns related to the reme-*
9 *diation of indoor air contamination problems, the as-*
10 *essment of health related concerns and the prevention*
11 *of the problems through improved design, materials,*
12 *product specifications, and management practices.*

13 (3) *AVAILABILITY OF REPORTS.—The reports*
14 *prepared pursuant to this subsection and subsection*
15 *(c) shall be provided to the indoor air quality infor-*
16 *mation clearinghouse provided for in section 13 and,*
17 *to the extent practicable, the reports shall be made*
18 *available to architectural, design, and engineering*
19 *firms and to organizations representing the firms.*

20 **SEC. 15. STATE AND FEDERAL AUTHORITY.**

21 (a) *GENERAL AUTHORITY.—Nothing in this Act shall*
22 *be construed, interpreted, or applied to preempt, displace,*
23 *or supplant any other State or Federal law, whether statu-*
24 *tory or common law, or any local ordinance.*

1 (b) *OCCUPATIONAL SAFETY AND HEALTH.*—In exercis-
2 ing any authority under this title, the Administrator shall
3 not, for purposes of section 4(b)(1) of the Occupational Safe-
4 ty and Health Act of 1970 (29 U.S.C. 653(b)(1)), be consid-
5 ered to be exercising statutory authority to prescribe or en-
6 force standards or regulations affecting occupational safety
7 and health.

8 **SEC. 16. AUTHORIZATION OF APPROPRIATIONS.**

9 (a) *SECTIONS 5 THROUGH 7.*—There are authorized
10 to be appropriated \$20,000,000 for each of fiscal years 1994
11 through 1998. Of such sums as are appropriated pursuant
12 to this subsection, for each of fiscal years 1994 through
13 1998, $\frac{1}{5}$ shall be reserved for the implementation of section
14 7, $\frac{1}{4}$ shall be reserved for the implementation of section
15 5(c), and \$1,000,000 shall be reserved for the implementa-
16 tion of section 6(c).

17 (b) *SECTIONS 8, 9, 11, AND 13.*—There are authorized
18 to be appropriated \$10,000,000 for each for fiscal years
19 1994 through 1998, to carry out sections 8, 9, 11, and 13.
20 Of such sums as are appropriated pursuant to this sub-
21 section, $\frac{1}{5}$ shall be reserved for implementation of section
22 9 and $\frac{1}{5}$ shall be reserved for implementation of section
23 13.

24 (c) *SECTION 10.*—There are authorized to be appro-
25 priated \$12,000,000 for each of fiscal years 1994 through

1 1998, to carry out section 10. Of such sums that are appro-
2 priated pursuant to this section, $\frac{1}{3}$ shall be reserved for
3 the purpose of carrying out section 10(b).

4 (d) SECTION 12.—There are authorized to be appro-
5 priated \$1,500,000 for each of fiscal years 1994 through
6 1998, to carry out section 12.

7 (e) SECTION 14.—There are authorized to be appro-
8 priated \$5,000,000 for each of fiscal years 1994 through
9 1998 to carry out section 14.

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