

103D CONGRESS
1ST SESSION

S. 656

AN ACT

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

103^D CONGRESS
1ST SESSION

S. 656

AN ACT

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:

- 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, vola-
 13 tile organic chemicals (including formaldehyde and
 14 benzene), combustion byproducts (including carbon
 15 monoxide and nitrogen oxides), metals and gases
 16 (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 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
12 contamination;

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 proto-
20 cols for assessment of indoor air contamination in
21 non-residential, non-industrial buildings and to pro-
22 vide guidance on measures to respond to contamina-
23 tion; and

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

1 posure to indoor air contaminants and the Federal
2 Government should assist States in development of
3 programs 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 Envi-
7 ronmental Protection Agency and at other depart-
8 ments and agencies of the United States a com-
9 prehensive program of research and development
10 that addresses the seriousness and extent of indoor
11 air contamination, the human health effects of in-
12 door air contaminants, and the technological and
13 other methods of reducing human exposure to the
14 contaminants;

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

20 (3) provide support to State governments to
21 demonstrate and develop indoor air quality manage-
22 ment strategies, assessments, and response pro-
23 grams; and

24 (4) authorize activities to ensure the general co-
25 ordination of indoor air quality-related activity, pro-

1 vide for reports on indoor air quality to Congress,
2 provide for assessments of indoor air contamination
3 in specific buildings by the National Institute for
4 Occupational Safety and Health, ensure that data
5 and information on indoor air quality issues is avail-
6 able to interested parties, provide training, edu-
7 cation, information, and technical assistance to the
8 public and private sector, and for other purposes.

9 **SEC. 4. DEFINITIONS.**

10 As used in this Act:

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

14 (2) ADMINISTRATION.—The term “Administra-
15 tion” means the Occupational Safety and Health
16 Administration.

17 (3) AGENCY.—The term “Agency” means the
18 Environmental Protection Agency.

19 (4) DIRECTOR.—The term “Director” means
20 the Director of the National Institute of Occupa-
21 tional Safety and Health.

22 (5) FEDERAL AGENCY.—The term “Federal
23 agency” or “agency of the United States” means
24 any department, agency or other instrumentality of
25 the Federal Government, including any independent

1 agency or establishment of the Federal Government
2 or government corporation.

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

13 (7) INDOOR.—The term “indoor” means the
14 enclosed portions of buildings, including
15 nonindustrial workplaces, public buildings, Federal
16 buildings, schools, commercial buildings, and resi-
17 dences, and the occupied portions of vehicles.

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

1 (9) LOCAL AIR POLLUTION CONTROL AGEN-
2 CY.—The term “local air pollution control agency”
3 means any city, county, or other local government
4 authority charged with the responsibility for imple-
5 menting programs or enforcing laws or ordinances
6 relating to the prevention and control of air pollu-
7 tion, including indoor air pollution.

8 (10) LOCAL EDUCATION AGENCY.—The term
9 “local education agency” means any educational
10 agency as defined in section 198 of the Elementary
11 and Secondary Education Act of 1965 (20 U.S.C.
12 3381).

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

14 (a) AUTHORITY.—

15 (1) IN GENERAL.—The Administrator shall, in
16 coordination with other appropriate Federal agen-
17 cies, establish a national research, development, and
18 demonstration program to ensure the quality of air
19 indoors. As part of the program, the Administrator
20 shall promote the coordination and acceleration of
21 research, investigations, experiments, demonstra-
22 tions, surveys, and studies relating to the causes,
23 sources, effects, extent, prevention, detection, and
24 correction of contamination of indoor air.

1 (2) DUTIES OF ADMINISTRATOR.—In carrying
2 out this section, the Administrator is authorized,
3 subject to the availability of appropriations, to—

4 (A) collect and make available to the pub-
5 lic, through publications and other appropriate
6 means, the results of research, development,
7 and demonstration activities conducted pursu-
8 ant to this section;

9 (B) conduct research, development, and
10 demonstration activities and cooperate with
11 other Federal agencies, State and local govern-
12 ment entities, interstate and regional agencies,
13 other public agencies and authorities, nonprofit
14 institutions and organizations, and other per-
15 sons in the preparation and conduct of the re-
16 search, development, and demonstration activi-
17 ties;

18 (C) make grants to States or local govern-
19 ment entities, other public agencies and au-
20 thorities, nonprofit institutions and organiza-
21 tions, and other persons;

22 (D) enter into contracts or cooperative
23 agreements with public agencies and authori-
24 ties, nonprofit institutions and organizations,
25 and other persons;

1 (E) conduct studies, including epidemiolog-
2 ical studies, of the effects of indoor air contami-
3 nants or potential contaminants on mortality
4 and morbidity and clinical and laboratory stud-
5 ies on the immunologic, biochemical, physio-
6 logical, and toxicological effects (including the
7 carcinogenic, teratogenic, mutagenic, cardio-
8 vascular, and neurotoxic effects) of indoor air
9 contaminants or potential contaminants;

10 (F) develop and disseminate information
11 documents on indoor air contaminants describ-
12 ing the nature and characteristics of the con-
13 taminants in various concentrations;

14 (G) develop effective and practical proc-
15 esses, protocols, methods, and techniques for
16 the prevention, detection, and correction of in-
17 door air contamination and work with the pri-
18 vate sector, other governmental entities, and
19 schools and universities to encourage the devel-
20 opment of innovative techniques to improve in-
21 door air quality;

22 (H) construct such facilities, employ such
23 staff, and provide such equipment as are nec-
24 essary to carry out this section;

1 (I) call conferences concerning the poten-
2 tial or actual contamination of indoor air giving
3 opportunity for interested persons to be heard
4 and present papers at the conferences;

5 (J) utilize, on a reimbursable basis, facili-
6 ties and personnel of existing Federal scientific
7 laboratories and research centers;

8 (K) acquire secret processes, technical
9 data, inventions, patent applications, patents, li-
10 censes, and an interest in lands, plants, equip-
11 ment and facilities, and other property rights,
12 by purchase, license, lease, or donation, and if
13 the Administrator expects or intends that re-
14 search conducted pursuant to this subsection
15 will primarily affect worker safety and health,
16 the Administrator shall consult with the Assist-
17 ant Secretary of Occupational Safety and
18 Health and the Director; and

19 (L) conduct research, development, and
20 demonstration activities through nonprofit insti-
21 tutions on the use of indoor foliage as a method
22 to reduce indoor air pollution.

23 (b) PROGRAM REQUIREMENTS.—The Administrator,
24 in coordination with other appropriate Federal agencies,
25 shall conduct, assist, or facilitate research, investigations,

1 studies, surveys, or demonstrations with respect to the fol-
2 lowing:

3 (1) The effects on human health of contami-
4 nants or combinations of contaminants (whether
5 natural or anthropogenic) at various levels including
6 additive, cumulative, and synergistic effects on popu-
7 lations both with and without heightened sensitivity
8 that are found or are likely to be found in indoor
9 air.

10 (2) The exposure of persons to contaminants
11 that are found in indoor air (including exposure to
12 the substances from sources other than indoor air
13 contamination, including drinking water, diet, or
14 other exposures).

15 (3) The identification of populations at in-
16 creased risk of illness from exposure to indoor air
17 contaminants and assessment of the extent and
18 characteristics of the exposure.

19 (4) The exposure of persons to contaminants in
20 buildings of different classes or types, and in vehi-
21 cles, and assessment of the association of particular
22 contaminants and particular building classes or
23 types and vehicles.

24 (5) The identification of building classes or
25 types and design features or characteristics that in-

1 crease the likelihood of exposure to indoor air con-
2 taminants.

3 (6) The identification of the sources of indoor
4 air contaminants, including association of contami-
5 nants with outdoor sources, building or vehicle de-
6 sign, classes or types of products, building manage-
7 ment practices, equipment operation practices, build-
8 ing materials, and related factors.

9 (7) The assessment of relationships between
10 contaminant concentration levels in ambient air and
11 the contaminant concentration levels in the indoor
12 air.

13 (8) The development of methods and techniques
14 for characterizing and modeling indoor air move-
15 ment and flow within buildings or vehicles, including
16 the transport and dispersion of contaminants in the
17 indoor air.

18 (9) The assessment of the fate, including deg-
19 radation and transformation, of particular contami-
20 nants in indoor air.

21 (10) The development of methods and tech-
22 niques to characterize the association of contami-
23 nants, the levels of contaminants, and the potential
24 for contamination of new construction with climate,

1 building location, seasonal change, soil and geologic
2 formations, and related factors.

3 (11) The assessment of indoor air quality in fa-
4 cilities of local education agencies and buildings used
5 as child care facilities and development of measures
6 and techniques for control of indoor air contamina-
7 tion in the buildings.

8 (12) The development of protocols, methods,
9 techniques, and instruments for sampling indoor air
10 to determine the presence and level of contaminants,
11 including sample collection and the storage of sam-
12 ples before analysis and development of methods to
13 improve the efficiency and reduce the cost of analy-
14 sis.

15 (13) The development of air quality sampling
16 methods and instruments that are inexpensive and
17 easy to use and may be used by the general public.

18 (14) The development of control technologies,
19 building design criteria, and management practices
20 to prevent the entrance of contaminants into build-
21 ings or vehicles (such as air intake protection, seal-
22 ing, and related measures) and to reduce the con-
23 centrations of contaminants indoor (such as control
24 of emissions from internal sources of contamination,

1 improved air exchange and ventilation, filtration,
2 and related measures).

3 (15) The development of materials and prod-
4 ucts that may be used as alternatives to materials
5 or products that are now in use and that contribute
6 to indoor air contamination.

7 (16) Research, to be carried out principally by
8 the Occupational Safety and Health Administration
9 and the National Institute for Occupational Safety
10 and Health, for the purpose of assessing—

11 (A) the exposure of workers to indoor air
12 contaminants, including an assessment of re-
13 sulting health effects; and

14 (B) the costs of declines in productivity,
15 sick time use, increased use of employer-paid
16 health insurance, and worker compensation
17 claims.

18 (17) Research, to be carried out in conjunction
19 with the Secretary of Housing and Urban Develop-
20 ment, and the Secretary of the Department of En-
21 ergy for the purpose of developing methods for as-
22 sassing the potential for indoor air contamination of
23 new construction and design measures to avoid in-
24 door air contamination.

1 (18) Research, to be carried out in conjunction
2 with the Secretary of Transportation, for the pur-
3 poses of—

4 (A) assessing the potential for indoor air
5 contamination in public and private transpor-
6 tation; and

7 (B) designing measures to avoid the indoor
8 air contamination.

9 (19) Research, to be carried out in consultation
10 with the Administrator for the National Aeronautics
11 and Space Administration, for the purpose of assess-
12 ing the use of indoor foliage as a means to reduce
13 indoor air contamination, including demonstration
14 projects to determine the level of pollutants reduced
15 by indoor plants in buildings.

16 (c) TECHNOLOGY DEMONSTRATION PROGRAM.—

17 (1) IN GENERAL.—The Administrator may
18 enter into cooperative agreements or contracts with,
19 or provide financial assistance in the form of grants
20 to, public agencies and authorities, nonprofit institu-
21 tions and organizations, employee advocate organiza-
22 tions, local educational institutions, or other appro-
23 priate entities or persons to demonstrate practices,
24 methods, technologies, or processes that may be ef-
25 fective in controlling sources or potential sources of

1 indoor air contamination, preventing the occurrence
2 of indoor air contamination, and reducing exposures
3 to indoor air contamination.

4 (2) REQUIREMENTS FOR ASSISTANCE.—The
5 Administrator may assist a demonstration activity
6 under paragraph (1) only if—

7 (A) the demonstration activity will serve to
8 demonstrate a new or significantly improved
9 practice, method, technology, or process or the
10 feasibility and cost effectiveness of an existing,
11 but unproven, practice, method, technology, or
12 process and will not duplicate other Federal,
13 State, local, or commercial efforts to dem-
14 onstrate the practice, method, technology, or
15 process;

16 (B) the demonstration activity meets the
17 requirements of this section and serves the pur-
18 poses of this Act;

19 (C) the demonstration of the practice,
20 technology, or process will comply with all other
21 laws and regulations for the protection of
22 human health, welfare, and the environment;
23 and

1 (D) in the case of a contract or cooperative
2 agreement, the practice, method, technology, or
3 process—

4 (i) would not be adequately dem-
5 onstrated by State, local, or private per-
6 sons, or in the case of an application for
7 financial assistance, by a grant; and

8 (ii) is not likely to receive adequate fi-
9 nancial assistance from other sources.

10 (3) SOLICITATIONS.—The demonstration pro-
11 gram established by this subsection shall include so-
12 licitations for demonstration projects, selection of
13 suitable demonstration projects from among the pro-
14 posed demonstration projects, supervision of the
15 demonstration projects, evaluation and publication of
16 the results of demonstration projects, and dissemina-
17 tion of information on the effectiveness and feasibil-
18 ity of the practices, methods, technologies, and proc-
19 esses that are proven to be effective.

20 (4) PUBLISHED SOLICITATIONS.—Not later
21 than 180 days after the date of enactment of this
22 Act, and not less often than every 12 months there-
23 after, the Administrator shall publish a solicitation
24 for proposals to demonstrate, prototype or at full-
25 scale, practices, methods, technologies, and processes

1 that are (or may be) effective in controlling sources
2 or potential sources of indoor air contaminants. The
3 solicitation notice shall prescribe the information to
4 be included in the proposal, including technical and
5 economic information derived from the research and
6 development efforts of the applicant, and other in-
7 formation sufficient to permit the Administrator to
8 assess the potential effectiveness and feasibility of
9 the practice, method, technology, or process pro-
10 posed to be demonstrated.

11 (5) APPLICATIONS.—Any person and any public
12 or private nonprofit entity may submit an applica-
13 tion to the Administrator in response to the solicita-
14 tions required by paragraph (4). The application
15 shall contain a proposed demonstration plan setting
16 forth how and when the project is to be carried out
17 and such other information as the Administrator
18 may require.

19 (6) REVIEW.—In selecting practices, methods,
20 technologies, or processes to be demonstrated, the
21 Administrator shall fully review the applications sub-
22 mitted and shall evaluate each project according to
23 the following criteria:

24 (A) The potential for the proposed prac-
25 tice, method, technology, or process to effec-

1 tively control sources or potential sources of
2 contaminants that present risks to human
3 health.

4 (B) The consistency of the proposal with
5 the recommendations provided pursuant to sec-
6 tion 8(d)(8).

7 (C) The capability of the person or persons
8 proposing the project to successfully complete
9 the demonstration as described in the applica-
10 tion.

11 (D) The likelihood that the demonstrated
12 practice, method, technique, or process could be
13 applied in other locations and circumstances to
14 control sources or potential sources of contami-
15 nants, including considerations of cost, effec-
16 tiveness, and technological feasibility.

17 (E) The extent of financial support from
18 other persons to accomplish the demonstration
19 as described in the application.

20 (F) The capability of the person or persons
21 proposing the project to disseminate the results
22 of the demonstration or otherwise make the
23 benefits of the practice, method, or technology
24 widely available to the public in a timely man-
25 ner.

1 (7) SELECTION OF PROJECTS.—The Adminis-
2 trator shall select or refuse to select a project for
3 demonstration under this subsection in an expedi-
4 tious manner. In the case of a refusal to select a
5 project, the Administrator shall notify the applicant
6 of the reasons for the refusal.

7 (8) PERFORMANCE OF PROJECTS.—Each dem-
8 onstration project under this section shall be per-
9 formed by the applicant, or by a person satisfactory
10 to the applicant, under the supervision of the Ad-
11 ministrator. The Administrator shall enter into a
12 written agreement with each applicant granting the
13 Administrator the responsibility and authority for
14 testing procedures, quality control, monitoring, and
15 other measurements necessary to determine and
16 evaluate the results of the demonstration project.

17 (9) AGREEMENTS.—The Administrator shall
18 enter into agreements, if practicable and desirable,
19 to provide for monitoring testing procedures, quality
20 control, and such other measurements as are nec-
21 essary to evaluate the results of demonstration
22 projects or facilities intended to control sources or
23 potential sources of contaminants.

24 (10) SCHEDULES.—Each demonstration project
25 under this section shall be completed within such

1 time as is established in the demonstration plan.
2 The Administrator may extend any deadline estab-
3 lished under this subsection by mutual agreement
4 with the applicant concerned.

5 (11) FEDERAL FUNDS.—The total amount of
6 Federal funds for any demonstration project under
7 this section shall not exceed 75 percent of the total
8 cost of the project. If the Administrator determines
9 that research under this section is of a basic nature
10 that would not otherwise be undertaken, or the ap-
11 plicant is a local educational agency, the Adminis-
12 trator may approve a grant under this section with
13 a matching requirement other than that specified in
14 this subsection, including full Federal funding.

15 (12) REPORTS.—The Administrator shall, from
16 time to time, publish general reports describing the
17 findings of demonstration projects conducted pursu-
18 ant to this section. The reports shall be provided to
19 the indoor air quality information clearinghouse pro-
20 vided for in section 13.

21 (d) STUDY OF SCHOOLS AND CHILD CARE FACILI-
22 TIES.—

23 (1) IN GENERAL.—The Administrator shall con-
24 duct a national study of the seriousness and extent

1 of indoor air contamination in buildings owned by
2 local educational agencies and child care facilities.

3 (2) ADVISORY GROUP.—The Administrator
4 shall establish an advisory group composed of rep-
5 resentatives of school administrators, teachers, child
6 care organizations, parents and service employees
7 and other interested parties, including scientific and
8 technical experts familiar with indoor air pollution
9 exposures, effects, and controls, to provide guidance
10 and direction in the development of the national
11 study.

12 (3) REPORT.—Not later than 2 years after the
13 date of enactment of this Act, the Administrator
14 shall provide a report to Congress of the results of
15 the national study. The report required by this para-
16 graph shall provide such recommendations for activi-
17 ties or programs to reduce and avoid indoor air con-
18 tamination in buildings owned by local educational
19 agencies and in child care facilities as the Adminis-
20 trator determines appropriate.

21 (e) REPORT TO CONGRESS.—Not later than 2 years
22 after the date of enactment of this Act, the Administrator
23 shall prepare and submit to Congress a report reviewing
24 and assessing issues related to chemical sensitivity dis-
25 orders, including multiple chemical sensitivities. The Advi-

1 sory Committee established pursuant to section 7(c) shall
2 review and comment on the report prior to submittal to
3 Congress.

4 (f) HEALTHY BUILDINGS BASELINE ASSESSMENT.—

5 (1) IN GENERAL.—The Administrator and the
6 Director shall conduct research on indoor air quality
7 in commercial buildings to develop baseline informa-
8 tion on indoor air quality in the buildings.

9 (2) REQUIREMENTS OF RESEARCH.—Research
10 carried out under this subsection shall comply with
11 generally accepted principles of the proper design,
12 maintenance, and operation of ventilation, filtration,
13 and other building systems.

14 (3) PERSONS THAT MAY CONDUCT RE-
15 SEARCH.—The Administrator and the Director may
16 arrange to have all or a portion of the research to
17 be carried out by appropriate private persons and
18 academic institutions.

19 (4) CONTENTS OF STUDY.—The study shall in-
20 clude—

21 (A) monitoring of respirable particulate
22 matter, volatile compounds, biological contami-
23 nants, and other contaminants of interest; and

24 (B) identification of the sources of indoor
25 air contaminants.

1 (g) 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, VOLUNTARY PARTNER-**
5 **SHIP PROGRAMS, AND VENTILATION STAND-**
6 **ARDS.**

7 (a) TECHNOLOGY AND MANAGEMENT PRACTICE AS-
8 SESSMENT BULLETINS.—

9 (1) IN GENERAL.—The Administrator shall
10 publish bulletins providing an assessment of tech-
11 nologies and management practices for the control
12 and measurement of contaminants in the air in-
13 doors.

14 (2) BULLETINS.—The bulletins published pur-
15 suant to this subsection shall, at a minimum—

16 (A) describe the control or measurement
17 technology or practice;

18 (B) describe the effectiveness of the tech-
19 nology or practice in control or measurement of
20 indoor air contaminants and, to the extent fea-
21 sible, the resulting reduction in risk to human
22 health;

23 (C) assess the feasibility of the application
24 of the technology or practice in buildings of dif-
25 ferent types, sizes, ages, and designs;

1 (D) assess the cost of the application of
2 the technology or practice in buildings of dif-
3 ferent types, sizes, ages, and designs, including
4 capital and operational costs; and

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

7 (3) **FORMAT.**—The Administrator shall estab-
8 lish and utilize a standard format for presentation of
9 the technology and management practice assessment
10 bulletins. The format shall be designed to facilitate
11 assessment of technologies or practices by interested
12 parties, including homeowners and building owners
13 and managers.

14 (4) **SCHEDULE OF PUBLICATION.**—The Admin-
15 istrator shall provide that, to the extent practicable,
16 bulletins published pursuant to this subsection shall
17 be published on a schedule consistent with the publi-
18 cation of health advisories pursuant to section 7(b).

19 (5) **PUBLIC REVIEW.**—In developing bulletins
20 pursuant to this subsection, the Administrator shall
21 provide for public review and shall consider public
22 comment prior to the publication of bulletins. If the
23 technology or management practice is expected to
24 have significant implications for worker safety or

1 health, the Administrator shall consult with the Di-
2 rector prior to seeking review and comment.

3 (6) DISTRIBUTION.—The bulletins published
4 pursuant to this subsection shall be provided to the
5 indoor air quality information clearinghouse estab-
6 lished under section 13 and, to the extent prac-
7 ticable, shall be made available to architecture, de-
8 sign, and engineering firms, building owners and
9 managers, and organizations representing the par-
10 ties.

11 (b) VOLUNTARY PARTNERSHIP PROGRAMS.—

12 (1) IN GENERAL.—The Administrator shall de-
13 velop a voluntary partnership program in coopera-
14 tion with corporations and other entities that own,
15 operate, or occupy buildings.

16 (2) PARTNERSHIPS.—The Administrator shall
17 enter into the voluntary partnerships as an incentive
18 to promote the implementation of pollution preven-
19 tion, problem mitigation, and energy-wise technology
20 strategies in exchange for indoor air quality tech-
21 nical support and recognition of the Agency.

22 (3) RECOGNITION.—The Administrator may
23 award recognition to corporations or other persons
24 that comply with management practices that are
25 necessary to improve air quality.

1 (c) MODEL BUILDING MANAGEMENT PRACTICES
2 TRAINING.—

3 (1) IN GENERAL.—Not later than 1 year after
4 the date of enactment of this Act, the Director of
5 the National Institute of Occupational Safety and
6 Health, in cooperation with the Administrator of the
7 General Services Administration and the Adminis-
8 trator, shall develop an indoor air training course
9 providing training with respect to—

10 (A) principles, methods, and techniques re-
11 lated to ventilation system operation and main-
12 tenance, including applicable ventilation guide-
13 lines and standards;

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

19 (C) health threats posed by indoor air con-
20 taminants, including a knowledge of health
21 advisories published pursuant to this Act and
22 other information concerning contaminant lev-
23 els;

1 (D) identification of potential indoor air
2 contaminant sources and options for reducing
3 exposures to contaminants;

4 (E) special measures that may be nec-
5 essary to reduce indoor air contaminant expo-
6 sures in new buildings and in portions of build-
7 ings that have been renovated or substantially
8 refurbished within the 6-month period preced-
9 ing the measures; and

10 (F) special measures that may be nec-
11 essary to reduce exposures to contaminants as-
12 sociated with pesticide applications, installation
13 of products, furnishings, or equipment, and
14 cleaning operations.

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

23 (3) FEES.—The Director of the National Insti-
24 tute of Occupational Safety and Health, or firms or
25 organizations operating under contract with the Ad-

1 administrator of the General Services Administration,
2 are authorized to establish a fee for training pursu-
3 ant to this subsection. The fees shall be in an
4 amount not to exceed the amount necessary to de-
5 fray the costs of the training program.

6 (4) REPORT.—Not later than 4 years after the
7 date of enactment of this Act, the Director of the
8 National Institute of Occupational Safety and
9 Health, in consultation with the Administrator of
10 the General Services Administration, and the Ad-
11 ministrator, shall prepare a report to Congress as-
12 sessing the training program under this subsection
13 and making recommendations concerning the appli-
14 cation of training requirements to classes and types
15 of buildings not covered under this subsection.

16 (d) VENTILATION PROGRAM.—

17 (1) IN GENERAL.—The Administrator, in co-
18 ordination with other Federal agencies, shall conduct
19 a program to analyze the adequacy of ventilation
20 standards and guidelines to protect the public and
21 workers from indoor air contaminants.

22 (2) DUTIES OF ADMINISTRATOR.—The Admin-
23 istrator shall—

24 (A) identify and describe ventilation stand-
25 ards adopted by State and local governments

1 and professional organizations, including the
2 American Society of Heating, Refrigerating and
3 Air Conditioning Engineers;

4 (B) determine the adequacy of the stand-
5 ards for protecting public health and promoting
6 worker productivity;

7 (C) assess the costs of compliance with the
8 standards;

9 (D) determine the degree to which the
10 standards are being adopted and enforced;

11 (E) identify the extent to which buildings
12 are being operated in a manner that achieves
13 the standards; and

14 (F) assess the potential for the standards
15 to complement controls over specific sources of
16 contaminants in reducing indoor air contamina-
17 tion.

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

19 (a) LIST OF CONTAMINANTS.—

20 (1) IN GENERAL.—Not later than 18 months
21 after the date of enactment of this Act, the Adminis-
22 trator shall prepare and publish in the Federal Reg-
23 ister a list of indoor air contaminants (referred to in
24 this section as “listed contaminants”). The list may
25 include combinations or mixtures of contaminants

1 and may refer to the combinations or mixtures by a
2 common name.

3 (2) REVIEW OF LIST.—The Administrator shall
4 from time to time and as necessary to carry out this
5 Act, but not less often than biennially, review and
6 revise the list by adding other contaminants pursu-
7 ant to this Act.

8 (3) CONTENTS OF LIST.—The list provided for
9 in paragraph (1) shall include, at a minimum, ben-
10 zene, biological contaminants, carbon monoxide,
11 formaldehyde, lead, methylene chloride, nitrogen
12 oxide, particulate matter, asbestos, polycyclic aro-
13 matic hydrocarbons (PAHs), and radon.

14 (4) CONSULTATION AND PUBLIC REVIEW.—In
15 developing the list provided for in paragraph (1) or
16 in revising the list pursuant to paragraph (2), the
17 Administrator shall consult with the advisory panel
18 provided for in subsection (c), provide for public re-
19 view, and consider public comment prior to the issu-
20 ance of a final list.

21 (b) CONTAMINANT HEALTH ADVISORIES.—

22 (1) IN GENERAL.—The Administrator shall, in
23 consultation with the advisory panel, provided for in
24 subsection (c), and after providing for public review
25 and comment pursuant to paragraph (6), publish ad-

1 visory materials addressing the adverse human
2 health effects of listed contaminants.

3 (2) CONTENTS OF MATERIALS.—The advisory
4 materials shall, at a minimum, describe—

5 (A) the physical, chemical, biological, and
6 radiological properties of the contaminant;

7 (B) the adverse human health effects of
8 the contaminant in various indoor environments
9 and in various concentrations, including the
10 health threat to subpopulations that may be es-
11 pecially sensitive to exposure to the contami-
12 nant;

13 (C) the extent to which the contaminant,
14 or a mixture of contaminants, is associated with
15 a particular substance of material and emis-
16 sions rates that are expected to result in vary-
17 ing levels of contaminant concentration in in-
18 door air;

19 (D) any Technology and Management
20 Practice Assessment Bulletin that is applicable
21 to the contaminant and any actions that are
22 identified for the contaminant in the National
23 Indoor Air Quality Response Plan prepared
24 pursuant to this Act; and

1 (E) any indoor air contaminant standards
2 or related action levels that are in effect under
3 any authority of a Federal law or regulation,
4 the authority of State laws or regulations, the
5 authority of any local government, or the au-
6 thority of another country, including standards
7 or action levels suggested by appropriate inter-
8 national organizations.

9 (3) STATUTORY CONSTRUCTION.—Health
10 advisories published pursuant to this section shall in
11 no way limit or restrict the application of require-
12 ments or standards established under any other Fed-
13 eral law.

14 (4) FORMAT.—The Administrator shall estab-
15 lish and utilize a standard format of presentation of
16 indoor air contaminant health advisories. The format
17 shall be designed to facilitate public understanding
18 of the range of risks of exposure to indoor air con-
19 taminants and shall include a summary of the re-
20 search and information concerning the contaminant
21 that is understandable to public health professionals
22 and to individuals who lack training in toxicology.

23 (5) SCHEDULE OF PUBLICATION.—The Admin-
24 istrator shall publish health advisories for listed con-
25 taminants as expeditiously as practicable. At a mini-

1 mum, the Administrator shall publish not less than
2 6 advisories not later than 24 months after the date
3 of enactment of this Act and shall publish an addi-
4 tional 6 advisories not later than 36 months after
5 the date of enactment of this Act.

6 (6) SCIENTIFIC INFORMATION.—Health
7 advisories shall be based on sound scientific informa-
8 tion that has undergone peer review.

9 (7) REVIEW AND REVISION.—Health advisories
10 shall be reviewed, revised, and republished to reflect
11 new scientific information on a periodic basis but
12 not less frequently than every 5 years.

13 (8) REVIEW AND COMMENT.—In developing and
14 revising health advisories pursuant to this sub-
15 section, the Administrator shall provide for public
16 review and comment, including providing notice in
17 the Federal Register of the intent to publish a
18 health advisory not later than 90 days prior to publi-
19 cation, and shall consider public comment prior to
20 issuance of an advisory.

21 (c) ADVISORY PANEL.—The Indoor Air Quality and
22 Total Human Exposure Committee of the Environmental
23 Protection Agency Science Advisory Board shall advise the
24 Administrator with respect to the implementation of this
25 section, including the listing of contaminants, the contami-

1 nants for which advisories should be published, the order
2 in which advisories should be published, the content, qual-
3 ity, and format of advisory documents, and the revision
4 of the documents. The Administrator shall provide that
5 a representative of each of the Agency for Toxic Sub-
6 stances and Disease Registry, the Office of Health and
7 Environmental Research of the Department of Energy,
8 the National Institute for Occupational Safety and Health,
9 and the National Institute for Environmental Health
10 Sciences shall participate in the work of the Advisory
11 Panel as ex officio members.

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

13 (a) **AUTHORITY.**—The Administrator shall, in coordi-
14 nation with other appropriate Federal agencies, develop
15 and publish a national indoor air quality response plan.
16 The response plan shall provide for the implementation of
17 a range of response actions identified in subsections (b)
18 and (c) that will result in the reduction of human exposure
19 to indoor air contaminants listed pursuant to section 7(a)
20 and the attainment, to the fullest extent practicable, of
21 indoor air contaminant levels that are protective of human
22 health.

23 (b) **EXISTING AUTHORITY.**—The Administrator, in
24 coordination with other appropriate Federal agencies,
25 shall include in the plans provided for in subsection (a)

1 a description of specific response actions to be imple-
2 mented based on existing authorities provided in—

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

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

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

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

11 (5) the authorities of the Consumer Product
12 Safety Commission;

13 (6) the authorities of the Occupational Safety
14 and Health Administration and the National Insti-
15 tute for Occupational Safety and Health; and

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

18 In implementing response actions pursuant to paragraph
19 (6), the Assistant Secretary for Occupational Safety and
20 Health shall consult with representatives and employees
21 of State and local governments with respect to States over
22 which the Occupational Safety and Health Administration
23 lacks jurisdiction over State and local employees.

24 (c) SUPPORTING ACTIONS.—The Administrator, in
25 coordination with the heads of other appropriate Federal

1 agencies, shall include in the plans provided for in sub-
2 section (a) a description of specific supporting actions, in-
3 cluding, but not limited to—

4 (1) programs to disseminate technical informa-
5 tion to public health, design, and construction pro-
6 fessionals concerning the risks of exposure to indoor
7 air contaminants and methods and programs for re-
8 ducing exposure to the contaminants;

9 (2) the development of guidance documents ad-
10 dressing individual contaminants, groups of contami-
11 nants, sources of contaminants, or types of buildings
12 or structures and providing information on measures
13 to reduce exposure to contaminants, including—

14 (A) the estimated cost of the measures;

15 (B) the technologic feasibility of the meas-
16 ures; and

17 (C) the effectiveness and efficiency of the
18 measures;

19 (3) education programs for the general public
20 concerning the health threats posed by indoor air
21 contaminants and appropriate individual response
22 actions;

23 (4) technical assistance, including the design
24 and implementation of training seminars for State
25 and local officials, private and professional firms,

1 and labor organizations dealing with indoor air pol-
2 lution and addressing topics such as monitoring,
3 analysis, mitigation, building management practices,
4 ventilation, health effects, public information, and
5 program design;

6 (5) the development of model building codes, in-
7 cluding ventilation rates, for various types of build-
8 ings designed to reduce levels of indoor air contami-
9 nants;

10 (6) the identification of contaminants, or cir-
11 cumstances of contamination for which immediate
12 action to protect public and worker health is nec-
13 essary and appropriate and a description of the ac-
14 tions needed;

15 (7) the identification of contaminants, or cir-
16 cumstances of contamination, in cases in which reg-
17 ulatory or statutory authority is not adequate to ad-
18 dress an identified contaminant or circumstance of
19 contamination and recommendation of legislation to
20 provide needed authority;

21 (8) the identification of contaminants, or cir-
22 cumstances of contamination, in cases in which the
23 continued reduction of contamination requires devel-
24 opment of technology or technological mechanisms;
25 and

1 (9) the identification of remedies to the “sick
2 building syndrome”, including proper design and
3 maintenance of ventilation systems, building con-
4 struction and remodeling practices, and safe prac-
5 tices for the application of pesticides, herbicides, and
6 disinfectants, and a standardized protocol for inves-
7 tigating and solving indoor air quality problems in
8 sick buildings.

9 (d) CONTENTS OF PLAN.—In describing specific ac-
10 tions to be taken under subsections (b) and (c), the Ad-
11 ministrator, in coordination with the heads of other appro-
12 priate Federal agencies, shall—

13 (1) identify the health effects, and any contami-
14 nant or contaminants thought to cause health effects
15 to be addressed by a particular action and to the
16 fullest extent feasible, the relative contribution to in-
17 door air contamination from all sources of contami-
18 nation;

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

20 (3) identify the schedule and process for imple-
21 mentation of the action;

22 (4) identify the Federal agency with jurisdiction
23 for the specific action that will implement the action;
24 and

1 (5) identify the financial resources needed to
2 implement the specific action and the source of the
3 resources.

4 (e) SCHEDULE.—Response plans provided for in sub-
5 section (a) shall be submitted to Congress not later than
6 2 years after the date of enactment of this Act, and bienni-
7 ally thereafter.

8 (f) REVIEW.—

9 (1) IN GENERAL.—The Administrator shall pro-
10 vide for public review and comment on the response
11 plan provided for in this section, including provision
12 of notice in the Federal Register for public review
13 and comment not later than 90 days prior to sub-
14 mission to Congress. The Administrator shall in-
15 clude in the response plan a summary of public com-
16 ments.

17 (2) REVIEW BY COUNCIL.—The Administrator
18 shall provide for the review and comment on the re-
19 sponse plan by the Council on Indoor Air Quality
20 provided for under section 12.

21 (g) REPORTS IN PLAN.—

22 (1) MONITORING AND MITIGATION SERVICES.—
23 In the first plan published pursuant to this section
24 shall include an assessment and report on indoor air
25 monitoring and mitigation services provided by pri-

1 vate firms and other organizations, including the
2 range of the services, the reliability and accuracy of
3 the services, and the relative costs of the services.
4 The assessment shall include a review and analysis
5 of options for oversight of indoor air monitoring and
6 mitigation firms and organizations, including reg-
7 istration, licensing, and certification of the firms and
8 organizations and options for imposing a user fee on
9 the firms and organizations.

10 (2) VENTILATION PROGRAM.—The first plan
11 published pursuant to this section shall include an
12 assessment and report on the ventilation program
13 carried out under this Act, including recommenda-
14 tions concerning—

15 (A) the establishment of ventilation stand-
16 ards that protect public health and worker
17 health and take into account comfort and en-
18 ergy conservation goals; and

19 (B) ensuring that adequate ventilation
20 standards are being adopted and that buildings
21 are being operated in a manner that achieves
22 standards.

23 (3) INDOOR PLANTS.—The first plan published
24 pursuant to this section shall include an assessment
25 and report on the research program authorized

1 under section 5(b)(20). In preparing the report, the
2 Administrator shall consult with the Administrator
3 of the National Aeronautics and Space Administra-
4 tion.

5 **SEC. 9. FEDERAL BUILDING RESPONSE PLAN AND DEM-**
6 **ONSTRATION PROGRAM.**

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

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

14 (1) **IN GENERAL.**—The Administrator of the
15 General Services Administration, in consultation
16 with the Administrator, the Assistant Secretary for
17 Occupational Safety and Health Administration, the
18 Director, and the heads of affected Federal depart-
19 ments or agencies shall prepare response plans ad-
20 dressing indoor air quality in Federal buildings. The
21 plans shall, to the fullest extent practicable, be de-
22 veloped in conjunction with response plans developed
23 pursuant to section 8.

24 (2) **CONTENTS OF RESPONSE PLAN.**—The re-
25 sponse plan shall provide for the implementation of

1 a range of response actions that will result in the re-
2 duction of human exposure to indoor air contami-
3 nants listed pursuant to section 7(a), and the attain-
4 ment, to the fullest extent practicable, of indoor air
5 contaminant concentration levels that are protective
6 of public and worker health.

7 (3) REQUIREMENTS FOR RESPONSE PLAN.—

8 Each Federal building response plan provided for in
9 paragraph (1) shall include—

10 (A) a list of all Federal buildings;

11 (B) a description and schedule of general
12 response actions, including general building
13 management practices, product purchase guide-
14 lines, air quality problem identification practices
15 and methods, personnel training programs, and
16 other actions to be implemented to reduce expo-
17 sures to indoor air contaminants in the build-
18 ings listed pursuant to subparagraph (A);

19 (C) a list of individual Federal buildings
20 listed pursuant to subparagraph (A) for which
21 there is sufficient evidence of indoor air con-
22 tamination or related employee health effects to
23 warrant assessment of the building pursuant to
24 section 14 and a schedule for the development

1 and submittal of building assessment proposals
2 pursuant to section 14(d);

3 (D) a description and schedule of specific
4 response actions to be implemented in each spe-
5 cific building identified in subparagraph (C)
6 and assessed pursuant to section 14;

7 (E) an identification of the Federal agency
8 responsible for the funding and implementation
9 of each response action identified in subpara-
10 graphs (B) and (D); and

11 (F) an identification of the estimated costs
12 of each response action identified in subpara-
13 graphs (B) and (D) and the source of resources
14 to cover the costs.

15 (4) REQUIREMENT FOR RESPONSE PLAN.—The
16 response plan provided for in this subsection shall
17 address each Federal building identified in para-
18 graph (3)(A), except that a specific building may be
19 exempted from coverage under this subsection. A
20 building may be exempted on the grounds of—

21 (A) national security;

22 (B) the anticipated demolition or termi-
23 nation of Federal ownership not later than 3
24 years after the exemption; and

1 (C) a specialized use of a building that
2 precludes necessary actions to reduce indoor air
3 contamination.

4 (5) SUBMISSION TO CONGRESS.—The plan pro-
5 vided for in this subsection shall be submitted to
6 Congress not later than 2 years after the date of en-
7 actment of this Act, and biennially thereafter.

8 (6) PUBLIC REVIEW AND COMMENT.—The Ad-
9 ministrator of the General Services Administration
10 shall provide for public review and comment on the
11 response plan provided for in this section, including
12 the provision of notice in the Federal Register, not
13 later than 90 days prior to the submission to Con-
14 gress of the plan.

15 (7) PUBLIC COMMENTS.—The response plan
16 shall include a summary of public comments. The
17 Council on Indoor Air Quality provided for under
18 section 12 shall review and comment on the plan.

19 (c) INDOOR AIR QUALITY RESERVE.—

20 (1) IN GENERAL.—The Administrator of the
21 General Services Administration shall reserve 0.5
22 percent of any funds used for the construction of
23 new Federal buildings for the design and construc-
24 tion of measures to reduce indoor air contaminant
25 concentrations within the buildings.

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

4 (A) the development and implementation of
5 general design principles intended to avoid or
6 prevent contamination of indoor air;

7 (B) the design and construction of im-
8 proved ventilation techniques or equipment;

9 (C) the development and implementation of
10 product purchasing guidelines;

11 (D) the design and construction of con-
12 taminant detection and response systems;

13 (E) the development of building manage-
14 ment guidelines and practices; and

15 (F) training in building and systems oper-
16 ations for building management and mainte-
17 nance personnel.

18 (3) REPORT.—On completion of construction of
19 each Federal building covered by this section, the
20 Administrator of the General Services Administra-
21 tion shall file with the Administrator, the clearing-
22 house established under section 13, and the Council
23 established under section 12, a report describing the
24 uses made of the reserve provided for in this sub-
25 section. The report shall be in sufficient detail to

1 provide design and construction professionals with
2 models and general plans of various indoor air con-
3 taminant reduction measures adequate to assess the
4 appropriateness of the measures for application in
5 other buildings.

6 (4) EXEMPTIONS.—The Administrator of the
7 General Services Administration, with the concur-
8 rence of the Administrator, may exempt a planned
9 Federal building from the requirements of this sub-
10 section if the Administrator of the General Services
11 Administration finds that the exemption is required
12 on the grounds of national security or that the in-
13 tended use of the building is not compatible with
14 this section.

15 (d) NEW ENVIRONMENTAL PROTECTION AGENCY
16 BUILDINGS.—Any new building constructed for use by the
17 Agency as headquarters shall be designed, constructed,
18 maintained, and operated as a model to demonstrate prin-
19 ciples and practices for the protection of indoor air quality.

20 (e) BUILDING COMMENTS.—

21 (1) IN GENERAL.—The Administrator of the
22 General Services Administration, in consultation
23 with the Administrator, the Assistant Secretary for
24 Occupational Safety and Health Administration, and
25 the Director, shall provide, by regulation, a method

1 and format for filing and responding to comments
2 and complaints concerning indoor air quality in Fed-
3 eral buildings by workers in the buildings and by the
4 public. The procedure for filing and responding to
5 worker complaints shall supplement and not dimin-
6 ish or supplant existing practices or procedures es-
7 tablished under the Occupational Safety and Health
8 Act of 1970 (29 U.S.C. 651 et seq.) and executive
9 orders pertaining to health and safety for Federal
10 employees.

11 (2) LISTING OF FILINGS.—A listing of each fil-
12 ing and an analysis of the filing shall be included in
13 each response plan prepared pursuant to this sec-
14 tion. The listing shall preserve the confidentiality of
15 individuals making filings under this section.

16 (3) REGULATIONS.—The regulations imple-
17 menting this subsection shall be issued at the earli-
18 est practicable date, but not later than 2 years after
19 the date of enactment of this Act.

20 (f) BUILDING VENTILATION AND MANAGEMENT
21 TRAINING.—

22 (1) IN GENERAL.—Not later than 180 days
23 after the date of enactment of this Act, the Adminis-
24 trator of the General Services Administration shall
25 designate, or require that a lessee designate, an In-

1 door Air Quality Coordinator for each Federal build-
2 ing that is owned or leased by the General Services
3 Administration.

4 (2) SCHEDULE FOR COMPLETION OF TRAINING
5 COURSES.—Not later than 4 years after the date of
6 enactment of this Act, each Indoor Air Quality Coor-
7 dinator shall complete the indoor air training course
8 operated pursuant to section 6(b). Beginning on the
9 date that is 3 years after the date of enactment of
10 this Act, each newly designated Indoor Air Quality
11 Coordinator shall complete the indoor air training
12 course not later than 1 year after designation.

13 (3) FAILURE TO DESIGNATE AN INDOOR AIR
14 QUALITY COORDINATOR.—If the Administrator of
15 the General Services Administration finds that a les-
16 see has failed to designate and train an Indoor Air
17 Quality Coordinator pursuant to the requirements of
18 this Act, the Administrator of the General Services
19 Administration may not reestablish a lease for the
20 building.

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

23 (a) MANAGEMENT AND ASSESSMENT STRATEGY
24 DEMONSTRATION.—

1 (1) IN GENERAL.—The Governor of a State
2 may apply to the Administrator for a grant to sup-
3 port demonstration of the development and imple-
4 mentation of a management strategy and assessment
5 with respect to indoor air quality within the State.

6 (2) STRATEGIES.—Each State indoor air qual-
7 ity management strategy shall—

8 (A) identify a lead agency and provide an
9 institutional framework for protection of indoor
10 air quality;

11 (B) identify and describe existing pro-
12 grams, controls, or related activities concerning
13 indoor air quality within State agencies, includ-
14 ing regulations, educational programs, assess-
15 ment programs, or other activities;

16 (C) identify and describe existing pro-
17 grams, controls, or related activities concerning
18 indoor air quality of local and other sub-State
19 agencies and ensure coordination among local,
20 State, and Federal agencies involved in indoor
21 air quality activities in the State; and

22 (D) ensure the coordination of indoor air
23 quality programs with ambient air quality pro-
24 grams and related activities.

1 (3) ASSESSMENT PROGRAMS.—Each State in-
2 door air quality assessment program shall—

3 (A) identify indoor air contaminants of
4 concern and, to the extent practicable, assess
5 the seriousness and the extent of indoor air
6 contamination by contaminants listed in section
7 7(a);

8 (B) identify the classes or types of build-
9 ings or other indoor environments in which in-
10 door air contaminants pose the most serious
11 threat to human health;

12 (C) if applicable, identify geographic areas
13 in the State where there is a reasonable likeli-
14 hood of indoor air contamination as a result of
15 the presence of contaminants in the ambient air
16 or the existence of sources of a contaminant;

17 (D) identify methods and procedures for
18 indoor air contaminant assessment and mon-
19 itoring;

20 (E) provide for periodic assessments of in-
21 door air quality and identification of indoor air
22 quality changes and trends; and

23 (F) establish methods to provide informa-
24 tion concerning indoor air contamination to the
25 public and to educate the public and interested

1 groups, including building owners and design
2 and engineering professionals, about indoor air
3 contamination.

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

9 (5) REQUIREMENTS FOR STATES.—Each State
10 that is selected to demonstrate the development of
11 management and assessment strategies shall provide
12 to the Administrator a management strategy and as-
13 sessment pursuant to paragraphs (2) and (3) not
14 later than 3 years after the date of selection and
15 shall certify to the Administrator that the strategy
16 and assessment meet the requirements of this Act.

17 (6) PUBLIC REVIEW AND COMMENT.—Each
18 State referred to in paragraph (5) shall provide for
19 public review and comment on the management
20 strategy and assessment prior to submission of the
21 strategy and assessment to the Administrator.

22 (b) RESPONSE PROGRAMS.—

23 (1) IN GENERAL.—A Governor of a State or the
24 executive officer of a local air pollution control agen-
25 cy may apply to the Administrator for grant assist-

1 ance to develop a response program designed to re-
2 duce human exposure to an indoor air contaminant
3 or contaminants in the State, a specific class or type
4 of building in that State, or a specific geographic
5 area of that State.

6 (2) REQUIREMENTS FOR RESPONSE PRO-
7 GRAM.—A response program shall—

8 (A) address a contaminant or contami-
9 nants listed pursuant to section 7(a);

10 (B) identify existing data and information
11 concerning the contaminant or contaminants to
12 be addressed, the class or type of building to be
13 addressed, and the specific geographic area to
14 be addressed;

15 (C) describe and schedule the specific ac-
16 tions to be taken to reduce human exposure to
17 the identified contaminant or contaminants, in-
18 cluding the adoption and enforcement of any
19 ventilation standards;

20 (D) identify the State or local agency or
21 public organization that will implement the re-
22 sponse actions;

23 (E) identify the Federal, State, and local
24 financial resources to be used to implement the
25 response program; and

1 (F) provide for the assessment of the effec-
2 tiveness of the response program.

3 (3) STATE AUTHORITY.—As part of a response
4 program pursuant to this subsection, an applicant
5 may develop contaminant action levels, guidance, or
6 standards based on health advisories developed pur-
7 suant to section 7.

8 (4) VENTILATION RATES.—As part of a re-
9 sponse program established pursuant to this sub-
10 section, an applicant may develop a standard estab-
11 lishing 1 or more ventilation rates for a class or
12 classes of buildings. The standard shall include de-
13 velopment of the assessment and compliance pro-
14 grams needed to implement the standard.

15 (5) RESPONSE PLANS.—As part of a response
16 program established pursuant to this subsection, an
17 applicant may develop a response plan addressing
18 indoor air quality in State and local government
19 buildings. The plan shall, to the fullest extent prac-
20 ticable, be consistent with response plans developed
21 pursuant to section 9.

22 (c) GRANT MANAGEMENT.—

23 (1) AMOUNT.—The amount of each grant made
24 under subsection (a)(1) shall not be less than
25 \$75,000 for each fiscal year.

1 (2) SELECTION CRITERIA.—In selecting States
2 for the demonstration and implementation of man-
3 agement strategies and assessments under sub-
4 section (a)(1), the Administrator shall consider—

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

7 (B) the seriousness of the indoor air qual-
8 ity issues identified by the State; and

9 (C) the potential for demonstration of in-
10 novative management or assessment measures
11 that may be of use to other States.

12 (3) FOCUS OF RESOURCES.—In selecting States
13 for the demonstration of management strategies and
14 assessments under subsection (a)(1), the Adminis-
15 trator shall focus resources to ensure that sufficient
16 funds are available to selected States to provide for
17 the development of comprehensive and thorough
18 management strategies and assessments in each se-
19 lected State and to adequately demonstrate the im-
20 plementation of the strategies and assessments.

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

1 (5) SELECTION CRITERIA.—In selecting re-
2 sponse programs developed under subsection (b) for
3 grant assistance, the Administrator shall consider—

4 (A) the potential for the response program
5 to bring about reductions in indoor air contami-
6 nant levels;

7 (B) the contaminants to be addressed, giv-
8 ing priority to contaminants for which health
9 advisories have been developed pursuant to sec-
10 tion 207;

11 (C) the type of building to be addressed,
12 giving priority to building types in which sub-
13 stantial human exposures to indoor air contami-
14 nants occur;

15 (D) the potential for development of inno-
16 vative response measures or methods that may
17 be of use to other States or local air pollution
18 control agencies; and

19 (E) the State indoor air quality manage-
20 ment strategy and assessment, giving priority
21 to States with complete indoor air management
22 strategies and assessments.

23 (6) FEDERAL SHARE.—The Federal share of
24 each grant made under subsections (a) and (b) shall
25 not exceed 75 per cent of the costs incurred in the

1 demonstration and implementation of the activities
2 and shall be made on the condition that the non-
3 Federal share is provided from non-Federal funds.

4 (7) AVAILABILITY OF FUNDS.—Funds awarded
5 as a grant pursuant to subsections (a) and (b) for
6 a fiscal year shall remain available for obligation for
7 the next fiscal year following the fiscal year in which
8 the funds are obligated and for the next following
9 fiscal year.

10 (8) RESTRICTION.—No grant shall be made
11 under this section for any fiscal year to a State or
12 local air pollution control agency that in the preced-
13 ing year received a grant under this section unless
14 the Administrator determines that the agency satis-
15 factorily implemented the grant activities in the pre-
16 ceding fiscal year.

17 (9) INFORMATION.—States and air pollution
18 control agencies shall provide such information in
19 applications for grant assistance and pertaining to
20 grant funded activities as the Administrator re-
21 quires.

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

23 (a) ESTABLISHMENT.—The Administrator shall es-
24 tablish an Office of Radiation and Indoor Air within the
25 Office of Air and Radiation of the Agency.

1 (b) RESPONSIBILITIES.—The Office of Radiation and
2 Indoor Air shall—

3 (1) list indoor air contaminants and develop
4 health advisories pursuant to section 7;

5 (2) develop national indoor air quality response
6 plans as provided for in section 8;

7 (3) manage Federal grant assistance provided
8 to air pollution control agencies under section 10;

9 (4) ensure the coordination of Federal laws and
10 programs administered by the Agency relating to in-
11 door air quality and reduce duplication or inconsis-
12 tencies among the programs;

13 (5) work with other Federal agencies, including
14 the Occupational Safety and Health Administration
15 and the National Institute for Occupational Safety
16 and Health, to ensure the effective coordination of
17 programs related to indoor air quality; and

18 (6) work with public interest groups, labor or-
19 ganizations, and the private sector in development of
20 information related to indoor air quality, including
21 the health threats of human exposure to indoor air
22 contaminants, the development of technologies and
23 methods to control the contaminants, and the devel-
24 opment of programs to reduce contaminant con-
25 centrations.

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

2 (a) **AUTHORITY.**—There is established a Council on
3 Indoor Air Quality.

4 (b) **RESPONSIBILITIES.**—The Council on Indoor Air
5 Quality shall—

6 (1) provide for the full and effective coordina-
7 tion of Federal agency activities relating to indoor
8 air quality;

9 (2) provide a forum for the resolution of con-
10 flicts or inconsistencies in policies or programs relat-
11 ed to indoor air quality;

12 (3) review and comment on the national indoor
13 air quality response program developed pursuant to
14 section 8 and the Federal building response plans
15 developed pursuant to section 9(b); and

16 (4) prepare a report to Congress pursuant to
17 subsection (d).

18 (c) **ORGANIZATION.**—

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

23 (A) the Agency;

24 (B) the Occupational Safety and Health
25 Administration;

1 (C) the National Institute of Occupational
2 Safety and Health;

3 (D) the Department of Health and Human
4 Services;

5 (E) the Department of Housing and Urban
6 Development;

7 (F) the Department of Energy;

8 (G) the Department of Transportation;

9 (H) the Consumer Product Safety Com-
10 mission; and

11 (I) the General Services Administration.

12 (2) CHAIRPERSON.—The representative of the
13 Agency shall serve as the Chairperson of the Coun-
14 cil.

15 (3) STAFF.—The Council shall be served by a
16 staff that shall include an Executive Director and
17 not less than 3 full-time equivalent employees who
18 shall be employees of the Agency.

19 **SEC. 13. INDOOR AIR QUALITY INFORMATION CLEARING-**
20 **HOUSE.**

21 (a) NATIONAL INDOOR AIR QUALITY CLEARING-
22 HOUSE.—The Administrator shall establish a national in-
23 door air quality clearinghouse to be used to disseminate
24 indoor air quality information to other Federal agencies,

1 State, and local governments, and private organizations
2 and individuals.

3 (b) FUNCTIONS.—The clearinghouse shall be a repos-
4 itory for reliable indoor air quality related information to
5 be collected from and made available to government agen-
6 cies and private organizations and individuals. At a mini-
7 mum, the clearinghouse established by this section shall
8 make available reports, programs, and materials developed
9 pursuant to this Act.

10 (c) HOTLINE.—The clearinghouse shall operate a
11 toll-free hotline on indoor air quality that shall be available
12 to provide to the public general information about indoor
13 air quality and general guidance concerning response to
14 indoor air quality problems.

15 (d) CONTRACTUAL AGREEMENT.—The Administrator
16 may provide for the design, development, and implementa-
17 tion of the clearinghouse through a contractual agreement.

18 **SEC. 14. BUILDING ASSESSMENT DEMONSTRATION.**

19 (a) AUTHORITY.—

20 (1) IN GENERAL.—The Director of the National
21 Institute for Occupational Safety and Health shall,
22 in consultation with the Administrator, implement a
23 Building Assessment Demonstration Program to
24 support the development of methods, techniques, and
25 protocols for the assessment of indoor air quality in

1 nonresidential, nonindustrial buildings and to pro-
2 vide assistance and guidance to building owners and
3 occupants on measures to improve air quality.

4 (2) ONSITE ASSESSMENTS.—In implementing
5 this section, the Director shall have the authority to
6 conduct onsite assessments of individual buildings,
7 including Federal, State, and municipal buildings.

8 (3) STATUTORY CONSTRUCTION.—Nothing in
9 this section shall in any way limit or constrain exist-
10 ing authorities under the Occupational Safety and
11 Health Act of 1970 (29 U.S.C. 651 et seq.).

12 (b) ASSESSMENT ELEMENTS.—Assessments of indi-
13 viduals buildings conducted pursuant to this section shall,
14 at a minimum, provide—

15 (1) an identification of suspected building con-
16 ditions or contaminants (or both) and the magnitude
17 of the conditions or contaminants;

18 (2) an assessment of the probable sources of
19 contaminants in the air in the building;

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

23 (4) an assessment of the probable association of
24 indoor air contaminants with the health and related
25 concerns of building occupants, including an assess-

1 ment of occupational and environmental factors that
2 may relate to the health concerns;

3 (5) an identification of appropriate measures to
4 control contaminants in the air in the building, to
5 reduce the concentration levels of contaminants, and
6 to reduce exposure to contaminants; and

7 (6) an evaluation of the effectiveness of re-
8 sponse measures in the control and reduction of con-
9 taminants and contaminant levels, the change in oc-
10 cupant health concerns and symptoms, the approxi-
11 mate costs of the measures, and any additional re-
12 sponse measures that may reduce health concerns of
13 occupants.

14 (c) ASSESSMENT REPORTS.—

15 (1) IN GENERAL.—The Director shall pre-
16 pare—

17 (A) a preliminary report of each building
18 assessment that shall document findings con-
19 cerning assessment elements in paragraphs (1)
20 through (5) of subsection (b); and

21 (B) a final report that shall provide an
22 overall summary of the building assessment, in-
23 cluding information on the effectiveness and
24 cost of response measures, and the potential for

1 application of response measures to other build-
2 ings.

3 (2) SCHEDULE OF REPORTS.—Each prelimi-
4 nary assessment report shall be prepared not later
5 than 180 days after the selection of a building for
6 assessment. A final assessment report shall be pre-
7 pared not later than 180 days after completion of a
8 preliminary report.

9 (3) AVAILABILITY OF REPORTS.—Preliminary
10 and final reports shall be made available to building
11 owners, occupants, and the authorized representa-
12 tives of occupants.

13 (d) BUILDING ASSESSMENT PROPOSAL.—

14 (1) IN GENERAL.—The Director shall consider
15 individual buildings for assessment under this sec-
16 tion in response to a proposal identifying a building
17 and the building owner and providing preliminary,
18 background information about the nature of the in-
19 door air contamination, previous response to air con-
20 tamination problems, and the characteristics, occu-
21 pancy, and uses of the building.

22 (2) BUILDING ASSESSMENT PROPOSALS.—A
23 Building assessment proposal may be submitted by
24 a building owner or occupants or the authorized rep-
25 resentatives of building occupants, including the au-

1 thorized representatives of employees working in a
2 building.

3 (e) BUILDING ASSESSMENT SELECTION.—

4 (1) IN GENERAL.—In selecting buildings to be
5 assessed under this section, the Director shall con-
6 sider—

7 (A) the seriousness and extent of apparent
8 indoor air contamination and human health ef-
9 fects of the contamination;

10 (B) the proposal for a building assessment
11 submitted pursuant to subsection (d);

12 (C) the views and comments of the build-
13 ing owners;

14 (D) the potential for the building assess-
15 ment to expand knowledge of building assess-
16 ment methods, including identification of con-
17 taminants and other relevant building condi-
18 tions, assessment of sources, and development
19 of response measures; and

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

22 (2) PRELIMINARY RESPONSE.—The Director
23 shall provide a preliminary response and review of
24 building assessment proposals to applicants and the
25 applicable building owner not later than 60 days

1 after receipt of a proposal and, to the extent prac-
2 ticable, shall provide a final decision concerning se-
3 lection of a proposal not later than 120 days after
4 the submittal of the proposal.

5 (f) BUILDING ASSESSMENT SUPPORT.—

6 (1) IN GENERAL.—The Director may enter into
7 agreements with private individuals, firms, State and
8 local governments, or academic institutions for serv-
9 ices and related assistance in conduct of assessments
10 under this section.

11 (2) OTHER FEDERAL AGENCIES.—The Director
12 may enter into agreements with any other Federal
13 agency for the assignment of Federal employees to
14 a specific building assessment project for a period of
15 not to exceed 180 days.

16 (g) SUMMARY REPORT.—

17 (1) IN GENERAL.—The Director shall provide,
18 on an annual basis, a report on the implementation
19 of this section to the Administrator and to the
20 Council on Indoor Air Quality established pursuant
21 to section 12.

22 (2) GENERAL REPORTS.—The Director shall,
23 from time to time and in consultation with the Ad-
24 ministrator, publish general reports containing mate-
25 rials, information, and general conclusions concern-

1 ing assessments conducted pursuant to this section.
2 The reports may address concerns related to the re-
3 mediation of indoor air contamination problems, the
4 assessment of health related concerns and the pre-
5 vention of the problems through improved design,
6 materials, product specifications, and management
7 practices.

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

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

16 (a) GENERAL AUTHORITY.—Nothing in this Act shall
17 be construed, interpreted, or applied to preempt, displace,
18 or supplant any other State or Federal law, whether statu-
19 tory or common law, or any local ordinance.

20 (b) OCCUPATIONAL SAFETY AND HEALTH.—In exer-
21 cising any authority under this title, the Administrator
22 shall not, for purposes of section 4(b)(1) of the Occupa-
23 tional Safety and Health Act of 1970 (29 U.S.C.
24 653(b)(1)), be considered to be exercising statutory au-

1 thority to prescribe or enforce standards or regulations af-
2 fecting occupational safety and health.

3 **SEC. 16. AUTHORIZATION OF APPROPRIATIONS.**

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

12 (b) SECTIONS 8, 9, 11, AND 13.—There are author-
13 ized to be appropriated \$10,000,000 for each for fiscal
14 years 1994 through 1998, to carry out sections 8, 9, 11,
15 and 13. Of such sums as are appropriated pursuant to
16 this subsection, $\frac{1}{5}$ shall be reserved for implementation
17 of section 9 and $\frac{1}{5}$ shall be reserved for implementation
18 of section 13.

19 (c) SECTION 10.—There are authorized to be appro-
20 priated \$12,000,000 for each of fiscal years 1994 through
21 1998, to carry out section 10. Of such sums that are ap-
22 propriated pursuant to this section, $\frac{1}{3}$ shall be reserved
23 for the purpose of carrying out section 10(b).

1 (d) SECTION 12.—There are authorized to be appro-
2 priated \$1,500,000 for each of fiscal years 1994 through
3 1998, to carry out section 12.

4 (e) SECTION 14.—There are authorized to be appro-
5 priated \$5,000,000 for each of fiscal years 1994 through
6 1998 to carry out section 14.

 Passed the Senate October 29 (legislative day, Octo-
ber 13), 1993.

Attest:

Secretary.

S 656 ES—2

S 656 ES—3

S 656 ES—4

S 656 ES—5