

CHAIRMAN'S MARK
APRIL 4, 2003

TITLE X— PERSONNEL AND TRAINING

1 **SEC. 1001. WORKFORCE TRENDS AND TRAINEESHIP GRANTS.**

2 (a) **WORKFORCE TRENDS.**—

3 (1) The Secretary of Energy (in this title referred to as the “Secretary”), in consultation
4 with the Secretary of Labor and utilizing statistical data collected by the Secretary of Labor,
5 shall monitor trends in the workforce of skilled technical personnel supporting energy
6 technology industries, including renewable energy industries, companies developing and
7 commercializing devices to increase energy efficiency, the oil and gas industry, the nuclear
8 power industry, the coal industry, and other industrial sectors as the Secretary may deem
9 appropriate.

10 (2) The Secretary shall report to the Congress whenever the Secretary determines that
11 significant national shortfalls of skilled technical personnel in one or more energy industry
12 segments are forecast or have occurred.

13 (B) **TRAINEESHIP GRANTS FOR SKILLED TECHNICAL PERSONNEL.**—The Secretary, in
14 consultation with the Secretary of Labor, may establish grant programs in the appropriate offices of the
15 Department of Energy to enhance training of skilled technical personnel for which a shortfall is
16 determined under subsection (a).

17 (c) **DEFINITION.**—For purposes of this section, the term “skilled technical personnel” means
18 journey and apprentice level workers who are enrolled in or have completed a State or federally
19 recognized apprenticeship program and other skilled workers in energy technology industries.

20 (d) **AUTHORIZATION OF APPROPRIATIONS.**—For the purposes of this section, there are
21 authorized to be appropriated to the Secretary \$20,000,000 for each of fiscal years 2004 through
22 2008, to remain available until expended.

23 **SEC. 1002. RESEARCH FELLOWSHIPS IN ENERGY RESEARCH.**

24 (a) **POSTDOCTORAL FELLOWSHIPS.**—The Secretary shall establish a program of fellowships to

1 encourage outstanding young scientists and engineers to pursue postdoctoral research appointments in
2 energy research and development at institutions of higher education of their choice.

3 (b) DISTINGUISHED SENIOR RESEARCH FELLOWSHIPS.—The Secretary shall establish a
4 program of fellowships to allow outstanding senior researchers in energy research and development and
5 their research groups to explore research and development topics of their choosing for a fixed period of
6 time. Awards under this program shall be made on the basis of past scientific or technical
7 accomplishment and promise for continued accomplishment during the period of support, which shall
8 not be less than 3 years.

9 (c) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section, there are
10 authorized to be appropriated to the Secretary \$40,000,000 for each of fiscal years 2004 through
11 2008, to remain available until expended.

12 **SEC. 1003. TRAINING GUIDELINES FOR ELECTRIC ENERGY INDUSTRY PERSONNEL.**

13 The Secretary of Labor, in consultation with the Secretary of Energy and jointly with the
14 electric industry and recognized employee representatives, shall develop model personnel training
15 guidelines to support electric system reliability and safety. The training guidelines shall, at a minimum—

16 (1) include training requirements for workers engaged in the construction, operation,
17 inspection, and maintenance of electric generation, transmission, and distribution, including
18 competency and certification requirements, and assessment requirements that include initial and
19 ongoing evaluation of workers, recertification assessment procedures, and methods for
20 examining or testing the qualification of individuals performing covered tasks; and

21 (2) consolidate existing training guidelines on the construction, operation, maintenance,
22 and inspection of electric generation, transmission, and distribution facilities, such as those
23 established by the National Electric Safety Code and other industry consensus standards.

24 **SEC. 1004. NATIONAL CENTER ON ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES.**

25 The Secretary shall support the establishment of a National Center on Energy Management and
26 Building Technologies, to carry out research, education, and training activities to facilitate the
27 improvement of energy efficiency and indoor air quality in industrial, commercial, and residential
28 buildings. The National Center shall be established by—

1 (1) recognized representatives of employees in the heating, ventilation, and air-
2 conditioning industry;

3 (2) contractors that install and maintain heating, ventilation, and air-conditioning systems
4 and equipment;

5 (3) manufacturers of heating, ventilation, and air-conditioning systems and equipment;

6 (4) representatives of the advanced building envelope industry, including design,
7 windows, lighting, and insulation industries; and

8 (5) other entities as the Secretary may deem appropriate.

9 **SEC. 1005. IMPROVED ACCESS TO ENERGY-RELATED SCIENTIFIC AND TECHNICAL CAREERS.**

10 (a) DEPARTMENT OF ENERGY SCIENCE EDUCATION PROGRAMS.—Section 3164 of the
11 Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended by adding
12 at the end the following:

13 “(c) PROGRAMS FOR STUDENTS FROM UNDER-REPRESENTED GROUPS.—In carrying out a
14 program under subsection (a), the Secretary shall give priority to activities that are designed to
15 encourage students from under-represented groups to pursue scientific and technical careers.”.

16 (b) PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-
17 SERVING INSTITUTIONS, AND TRIBAL COLLEGES.—The Department of Energy Science Education
18 Enhancement Act (42 U.S.C. 7381 et seq.) is amended—

19 (1) by redesignating sections 3167 and 3168 as sections 3168 and 3169, respectively;

20 and

21 (2) by inserting after section 3166 the following:

22 **“SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND**
23 **UNIVERSITIES, HISPANIC-SERVING INSTITUTIONS, AND TRIBAL COLLEGES.**

24 “(a) DEFINITIONS.—In this section:

25 “(1) HISPANIC-SERVING INSTITUTION.—The term ‘Hispanic-serving
26 institution’ has the meaning given that term in section 502(a) of the Higher
27 Education Act of 1965 (20 U.S.C. 1101a(a)).

28 “(2) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.— The term

1 'historically Black college or university' has the meaning given the term 'part B
2 institution' in section 322 of the Higher Education Act of 1965 (20 U.S.C.
3 1061).

4 "(3) NATIONAL LABORATORY.—The term 'National Laboratory' has
5 the meaning given that term in section 903(5) of the *[short title]*.

6 "(4) SCIENCE FACILITY.—The term 'science facility' has the meaning
7 given the term 'single-purpose research facility' in section 903(8) of the *[short*
8 *title]*.

9 "(5) TRIBAL COLLEGE.—The term 'tribal college' has the meaning
10 given the term 'tribally controlled college or university' in section 2(a) of the
11 Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C.
12 1801(a)).

13 "(b) EDUCATION PARTNERSHIP.— The Secretary shall direct the Director of
14 each National Laboratory, and may direct the head of any science facility, to increase
15 the participation of historically Black colleges or universities, Hispanic-serving
16 institutions, or tribal colleges in activities that increase the capacity of the historically
17 Black colleges or universities, Hispanic-serving institutions, or tribal colleges to train
18 personnel in science or engineering.

19 "(c) ACTIVITIES.—An activity under subsection (b) may include —

20 "(1) collaborative research;

21 "(2) equipment transfer;

22 "(3) training activities conducted at a National Laboratory or science
23 facility; and

24 "(4) mentoring activities conducted at a National Laboratory or science
25 facility.

26 "(d) REPORT.—Not later than 2 years after the date of enactment of this
27 section, the Secretary shall submit to the Congress a report on the activities carried out

1 under this section.”.

2 **SEC. 1006. NATIONAL POWER PLANT OPERATIONS TECHNOLOGY AND EDUCATION CENTER.**

3 (a) ESTABLISHMENT.—The Secretary shall support the establishment of a National Power
4 Plant Operations Technology and Education Center (in this section referred to as the “Center”), to
5 address the need for training and educating certified operators for electric power generation plants.

6 (b) ROLE.—The Center shall provide both training and continuing education relating to electric
7 power generation plant technologies and operations. The Center shall conduct training and education
8 activities on site and through Internet-based information technologies that allow for learning at remote
9 sites.

10 (c) CRITERIA FOR COMPETITIVE SELECTION.—The Secretary shall support the establishment of
11 the Center at an institution of higher education with expertise in power plant technology and operation
12 and with the ability to provide on-site as well as Internet-based training.

13 **SEC. 1007. FEDERAL MINE INSPECTORS.**

14 In light of projected retirements of Federal mine inspectors and the need for additional
15 personnel, the Secretary of Labor shall hire, train, and deploy such additional skilled Federal mine
16 inspectors as necessary to ensure the availability of skilled and experienced individuals and to maintain
17 the number of Federal mine inspectors at or above the levels authorized by law or established by
18 regulation.