

By Mr. Hodgkins of Lee, petition of Christopher J. Hodgkins, Edward G. Connolly, Emile J. Goguen, Larry F. Giordano, Marc D. Draisen and David F. Gately relative to clarifying and improving radiological emergency response planning and monitoring for licensed and operating nuclear power plants. Energy.

The Commonwealth of Massachusetts

In the Year One Thousand Nine Hundred and Ninety-Two.

AN ACT CLARIFYING AND IMPROVING RADIOLOGICAL EMERGENCY RESPONSE PLANNING AND MONITORING FOR LICENSED AND OPERATING NUCLEAR POWER PLANTS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Chapter 639 of the acts of 1950, as added by
2 section 24 of chapter 796 of the acts of 1979, is hereby amended
3 by striking out section 2B and inserting in place thereof the
4 following new section: —

5 Section 2B. The director, with the approval of the secretary,
6 shall designate certain areas of the commonwealth as “nuclear
7 power plant areas.” For purposes of this section, said areas shall
8 consist of all communities located within a radius of twenty miles
9 of a nuclear power plant, whether or not said plant is located
10 within the commonwealth; provided, however, that in the case of
11 the Pilgrim Nuclear Power Station, the nuclear power plant area
12 shall also include all communities in Barnstable County. The
13 particular needs of each community within the nuclear power
14 plant area shall be considered in the development of the local
15 radiological emergency response plans for each community.
16 Appropriate protective actions for each community shall be based
17 on the needs of special populations, geography, road networks,
18 meteorology and the distance the community is located from the
19 nuclear power plant.

20 The director shall promulgate rules and regulations with the
21 approval of the secretary establishing planning guidelines that

22 shall be used as standards for developing radiological emergency
23 response plans for communities within nuclear power plant areas.
24 These planning guidelines shall also include evaluation criteria
25 and for determining the adequacy of these plans to protect the
26 public health and safety. The standards shall include but not be
27 limited to provisions for adequate public education about
28 emergency response; prompt public notification in case of
29 emergencies; adequate public shelters, medical facilities and
30 evacuation reception facilities; and adequate emergency transpor-
31 tation for persons with special needs including school children,
32 the physically disabled, nursing home residents, institutionalized
33 patients, persons without twenty-four hour access to a motor
34 vehicle, inmates of correctional facilities and ambulatory hospital
35 patients for whom transport is medically safe. Before final
36 approval by the director and by the secretary, a public hearing
37 shall be held in accordance with section two of chapter thirty-A.

38 The director shall also promulgate rules and regulations with
39 the approval of the secretary for the development and annual
40 review of state and local radiological emergency response plans.
41 These regulations shall provide for meaningful public participa-
42 tion in the development and review of these plans, including an
43 annual public hearing in accordance with section two of
44 chapter thirty-A. In developing and reviewing these plans, the
45 director shall consult with appropriate federal, state and local
46 officials and may require the production of plant-specific
47 probabilistic safety analyses and any other emergency planning
48 studies deemed necessary by the secretary to protect the public
49 health and safety.

50 Periodic drills, including some unannounced drills, shall be
51 conducted for each nuclear power plant area to evaluate
52 emergency response capabilities, to analyze essential emergency
53 response skills and to identify deficiencies in state and local plans.

54 The director shall also commission a survey to identify all
55 buildings suitable for use as public shelters inside nuclear power
56 plant areas. Upon a determination by the Governor that state and
57 local emergency response plans for a nuclear power plant are
58 adequate to protect the public health and safety and his
59 consequent submission of such plans to the Federal Emergency

60 Management Agency for formal review and approval in
61 accordance with applicable provisions of federal law, signs
62 approved by the director shall be affixed to such buildings to alert
63 the public to their designated function during a serious nuclear
64 power plant accident.

65 Upon a determination by the governor that state and local
66 emergency response plans for a nuclear power plant are adequate
67 to protect health and safety and his consequent submission of such
68 plans to the Federal Emergency Management Agency for formal
69 review and approval in accordance with applicable provisions of
70 federal law, the director shall be responsible for maintaining such
71 plans in accordance with applicable provisions of state and
72 federal law. The director shall thereafter annually publish and
73 release to local officials of each political subdivision within that
74 nuclear power plant area preparedness and response plans which
75 will permit the residents of said area to evacuate or take other
76 appropriate protective actions in the event of a nuclear accident.
77 Copies of such plans shall be made available to the public upon
78 request for a fee which is not to exceed the cost of reproduction.

79 Following a determination by the Governor that state and local
80 emergency response plans for a nuclear power plant are adequate
81 to protect the public health and safety, the director after
82 consultation with local officials shall also annually publish and
83 release emergency public information to the residents of nuclear
84 power plant areas. Such information shall include warning and
85 sheltering provisions, as well as provisions concerning evacuation
86 routes, reception areas, and other recommended actions for each
87 area.

88 If at any time following the development and approval of state
89 and local plans, the governor determines that said plans are no
90 longer adequate to protect the public health and safety, he shall
91 notify the Federal Emergency Management Agency of the same
92 and the basis for his finding and shall direct the director to take
93 whatever steps are appropriate to correct the deficiency or, if the
94 governor determines that it cannot be corrected, to secure the
95 withdrawal of the plans.

96 The department of public utilities shall pursuant to section eight-
97 teen of chapter twenty-five assess the operators of nuclear power

98 plants located in the commonwealth for the costs directly or
99 indirectly associated with the research, review, development or
100 implementation of state and local radiological emergency
101 response plans incurred or protected to be incurred by state and
102 local governments. The secretary of public safety shall determine
103 the amount of annual assessment to be charged nuclear power
104 plant operators for such costs in accordance with section two B
105 of chapter six hundred and thirty-nine of the acts of nineteen
106 hundred and fifty, as added by section twenty-four of
107 chapter seven hundred and ninety-six of the acts of nineteen
108 hundred and seventy-nine and report annually, by April first, to
109 the department of public utilities. The department of public
110 utilities shall develop an equitable method of apportioning this
111 assessment. These assessments shall be allocated among the
112 respective owners on an equitable basis, and shall be collected and
113 paid into the General Fund during the fiscal year in which the
114 costs are incurred.

1 SECTION 2. Section 18 of chapter 25 of the General Laws,
2 as appearing in the 1986 Official Edition, is hereby amended by
3 striking out the second paragraph and inserting after the fifth
4 paragraph the following new paragraphs: —

5 The commission shall assess the operators of nuclear power
6 plants located in the commonwealth for the capital expenditure,
7 personnel, and operation and maintenance costs of monitoring
8 nuclear power plants in accordance with section five K of
9 chapter one hundred and eleven and for the costs directly or
10 indirectly associated with the research, review, development or
11 implementation of state and local radiological emergency
12 response plans in accordance with section two B of chapter six
13 hundred and thirty-nine of the acts of nineteen hundred and fifty,
14 as added by section twenty-four of chapter seven hundred and
15 ninety-six of the acts of nineteen hundred and seventy-nine.

16 The department of public health shall determine the amount
17 of annual assessment to be charged nuclear power plant operators
18 for the operation and maintenance of the monitoring program
19 established by section five K of chapter one hundred and eleven
20 including equipment, personnel, services, and related expenses,

21 and report annually, by April first, to the department of public
22 utilities. The department of public utilities shall develop an
23 equitable method of apportioning this assessment among the
24 respective utilities. These assessments shall be collected and paid
25 into the General Fund during the fiscal year in which the costs
26 are incurred.

27 With regard to nuclear power plants located outside the
28 Commonwealth that are allowed to operate whose nuclear power
29 plant areas, as defined in section two B of chapter six hundred
30 and thirty-nine of the acts of nineteen hundred and fifty, as added
31 by section twenty-four of chapter seven hundred and ninety-six
32 of the acts of nineteen hundred and seventy-nine, include
33 communities located within the Commonwealth, the commission
34 shall assess the Massachusetts utilities which own such plants in
35 whole or in part, or which purchase power from such plants, for
36 the capital expenditure, personnel, and operation and mainte-
37 nance costs of monitoring these plants in accordance with
38 section five K of chapter one hundred and eleven. These
39 assessments shall be allocated among the respective utilities on
40 an equitable basis and shall be collected and paid into the General
41 Fund during the fiscal year in which the costs are incurred.

1 SECTION 3. Section 5K of chapter 111 of the General Laws,
2 as appearing in the 1988 Official Edition, is hereby amended by
3 striking out from lines one, five, nine, seventeen, twenty-six, and
4 thirty-eight the following words: — “subject to appropriation.”

1 SECTION 4. Subsection (1) of paragraph (B) of said
2 section 5K of said chapter 111, as so appearing, is hereby amended
3 by inserting after the first sentence the following two sentences: —
4 For each nuclear power plant licensed to operate at full power
5 located within the commonwealth, such network shall include but
6 not be limited to the following: —

7 (1) monitors to measure the type and quantity of gaseous
8 radioactive effluents at each stack and gaseous release point at
9 each nuclear power plant and instantaneously transmit this data
10 to a central state office;

11 (2) monitors to measure the liquid radioactive effluent at each

12 liquid release point of each nuclear reactor and instantaneously
13 transmit this data to a central state office;

14 (3) sufficient remote, effluent monitors placed with consider-
15 ation to local geography and meteorology to detect all elevated
16 radioactive airborne emissions and instantaneously transmit such
17 data to a central state office;

18 (4) a dedicated data link with access to all data points
19 monitored by computers at each nuclear power plant; and

20 (5) a centralized computer office staffed by the department,
21 including but not limited to a nuclear engineer, a health physicist,
22 and a computer specialist and capable of receiving and analyzing
23 data from the above monitoring systems.

24 With regard to nuclear power plants located outside the
25 Commonwealth that are allowed to operate, whose nuclear power
26 plant areas, as defined in section two B of chapter six hundred
27 and thirty-nine of the acts of nineteen hundred and fifty, as added
28 by section twenty-four of chapter seven hundred and ninety-six
29 of the acts of nineteen hundred and seventy-nine, include
30 communities located within the Commonwealth, there shall be
31 sufficient remote, effluent monitors within each nuclear power
32 plant area within the commonwealth, placed with consideration
33 to local geography and meteorology to detect all elevated
34 radioactive airborne emissions and to instantaneously transmit
35 this data to a central state office.

1 SECTION 5 Said section 5K of said chapter 111, as so
2 appearing, is hereby further amended by striking out para-
3 graph (D) and inserting in place thereof the following
4 paragraph: —

5 (D) The operators of nuclear power plants shall be assessed
6 charges for the expenses to the department incurred or to be
7 incurred from the implementation of this section pursuant to
8 section eighteen of chapter twenty-five. The commissioner shall
9 determine these costs and report them annually to the department
10 of public utilities

1 SECTION 6. An initial capital expenditure charge of one
2 million five hundred thousand dollars shall be assessed the

3 operators of each nuclear power plant located in the common-
4 wealth in accordance with section eighteen of chapter twenty-five
5 of the General Laws, section five K of chapter one hundred and
6 eleven of the General Laws and section two B of chapter six
7 hundred and thirty-nine of the acts of nineteen hundred and fifty,
8 as added by section twenty-four of chapter seven hundred and
9 ninety-six of the acts of nineteen hundred and seventy-nine. With
10 regard to the Commonwealth's monitoring costs associated with
11 nuclear power plants located outside the Commonwealth, whose
12 nuclear power plant areas as defined in section two B of chapter six
13 hundred and thirty-nine of the acts of nineteen hundred and fifty,
14 as added by section twenty-four of chapter seven hundred and
15 ninety-six of the acts of nineteen hundred and seventy-nine, an
16 initial capital expenditure charge of five hundred thousand dollars
17 for each such power plant shall be assessed the Massachusetts
18 utilities which own in whole or in part, or which purchase power
19 from, such nuclear power plants located outside the Common-
20 wealth, in accordance with section eighteen of chapter twenty-five
21 of the General Laws one hundred and in section two B of
22 chapter six hundred and thirty-nine of the acts of nineteen
23 hundred and fifty, as added by section twenty-four of
24 chapter seven hundred and ninety-six of the acts of nineteen
25 hundred and seventy-nine, include communities located within the
26 Commonwealth, on the Massachusetts utilities which own in
27 whole or in part, or which purchase power from, these nuclear
28 power plants located outside the Commonwealth.

The first part of the report deals with the general situation of the country and the progress of the various departments. It is followed by a detailed account of the work done in each of the different branches of the service during the year. The report concludes with a summary of the results achieved and a statement of the resources available for the coming year.

The following table shows the results of the work done in each of the different branches of the service during the year:

Branch	1911-12	1910-11
Administration	100	95
Finance	120	110
Education	150	140
Health	180	170
Public Works	200	190
Police	220	210
Justice	240	230
Foreign Affairs	260	250
War	280	270
Naval	300	290
Air	320	310
Post and Telegraphs	340	330
Colonial	360	350
Indian	380	370
Chinese	400	390
Japanese	420	410
Other	440	430

The following table shows the resources available for the coming year:

Resource	1912-13	1911-12
Revenue	1000	950
Grants	1200	1100
Loans	1500	1400
Reserves	1800	1700
Other	2000	1900