



FEMA COMMENTS

ON THE
REPORT TO THE GOVERNOR ON EMERGENCY PREPAREDNESS
FOR AN ACCIDENT AT THE PILGRIM NUCLEAR POWER STATION

JULY 29, 1987

FEDERAL EMERGENCY MANAGEMENT AGENCY
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I. INTRODUCTION

On December 22, 1986, the Secretary of Public Safety, Charles Barry, forwarded a copy of the report to the Governor on "Emergency Preparedness for an Accident at the Pilgrim Nuclear Power Station" (Barry Report) to the Federal Emergency Management Agency (FEMA). He requested that FEMA review the report, inform him of its findings, and tell him what steps FEMA intended to take. The Governor and the Director of the Massachusetts Civil Defense Agency (MCDA) have endorsed the Barry Report and FEMA, therefore, views this report as the authoritative and current position of the Commonwealth.

FEMA has analyzed the Barry Report and used its analysis in developing FEMA's July 29, 1987 report "Self-Initiated Review and Interim Finding" (Hereinafter Self-Initiated Review). The Commonwealth concluded that the emergency response plans for an accident at the Pilgrim Nuclear Power Station are not adequate to protect the health and safety of the public. FEMA has also concluded that the plans are inadequate for the reasons cited in its Self-Initiated Review.

Many of the issues raised in the Barry Report were previously identified by FEMA, and date back to the 1981 and 1982 Regional Assistance Committee (RAC) reviews of the Commonwealth's Radiological Emergency Response Plans and the

September, 1982 Interim Findings. Other issues raised by the Barry Report provided new information to FEMA which was very useful in conducting its Self-Initiated Review.

FEMA applauds the diligence and hard work that went into the Commonwealth's critical examination of its emergency plans and welcomes its commitment to develop a comprehensive program to resolve the problems identified by both FEMA in its Interim Finding, and the Commonwealth in the Barry Report. FEMA looks forward to working with the Commonwealth on this important project.

FEMA feels, however, that, for the sake of the record, there are issues in the Barry Report which need to be clarified. FEMA has, therefore, provided comments on specific sections of the report below.

II. Specific Comments

1. Barry Report:

First, there are factors beyond the state's control, such as reactor design, plant management and the aggressiveness of federal regulators, that have a direct impact on emergency preparedness. (p.1)

FEMA Comment:

FEMA has reviewed plans submitted by the Commonwealth in 1981 and 1982 and revised local plans submitted in 1986. FEMA has consistently informed the Commonwealth of weaknesses in its plans. The Commonwealth has previously either stated that it was working on improving the plans or pledged to correct the plans.

The Commonwealth has primary responsibility to maintain and improve the radiological emergency response plans in the event of an accident at the Pilgrim Nuclear Power Station.

2. Barry Report:

On a number of occasions over the years, Civil Defense has requested support from FEMA and from BECo in accordance with federal regulations. These efforts led to a consultant being made available to the Department of Public Health and one planner being made available to Massachusetts Civil Defense supported by utility company grants to the Massachusetts Health Research Institute, Inc. However, in view of the fact that Massachusetts Civil Defense has to coordinate planning for three licensed plants affecting Massachusetts, (Rowe, MA, Plymouth, MA and Vernon, VT) and until April 1986, was involved in planning activities for the Seabrook Power Plant, the resources made available to the agency have been totally inadequate. (p.13)

FEMA Comment:

FEMA has provided all the technical assistance on emergency planning requested by the Commonwealth over the years. FEMA also has permitted employees of the

Commonwealth, either fully or partially funded by FEMA, to work on the Radiological Emergency Response Program.

All other States in New England adequately fund their Radiological Emergency Response Program. FEMA is encouraged that the Commonwealth is in the process of obtaining funds for its program.

3. Barry Report:

A response to the MASSPIRG report was published by FEMA on November 3, 1983. This response noted that "[w]hile MASSPIRG raises a number of good points, after a detailed analysis, we [FEMA] continue to make the Interim Finding that the Commonwealth of Massachusetts has demonstrated that there is reasonable assurance that the public would be adequately protected if there were an accident at the Pilgrim Nuclear Power Station." (p. 15)

FEMA Comment:

FEMA largely based its response to the MASSPIRG Petition on a review of the plans and information provided in the "Massachusetts Civil Defense Agency (MCDA) Analysis to the Massachusetts Public Interest Group Report - Blue Print for Chaos II: Pilgrim Disaster Plans, Still a Disaster" (copy attached).

4. Barry Report:

In May and June 1985, revised state and local plans were

published by Civil Defense and distributed to federal, state and local officials. (p.17)

FEMA Comment:

FEMA has not received a revision to the State Radiological Emergency Response Plan since 1982. In a letter to FEMA dated April 10, 1987, The Director, Massachusetts Civil Defense Agency, informed us that the 1982 version was the operational plan.

FEMA received copies of the 1985 local plans on June 25, 1986. FEMA's review of these plans indicate that the major issues identified in the 1981 and 1982 RAC Reviews and the 1982 Interim Findings have not been addressed.

5. Barry Report:

On October 30, 1985, FEMA wrote the Massachusetts Civil Defense once again concerning formal approval of the plans, and indicated that the process was "on hold" pending receipt of material called for in the 1981 and 1982 RAC Reviews. FEMA also requested copies of 1985 revised plans. These plans were made available to FEMA during the September 1985 exercise, but evidently were not formally delivered until June, 1986. On June 6, 1986 Civil Defense responded to FEMA, and indicated that work remained to be done to prepare the plans for the formal review, and that a lack of resources was impeding progress. (pp. 17, 18)

FEMA Comment:

FEMA first wrote to MCDA on March 6, 1985, informing

it that FEMA was suspending processing of the June, 1981 request for formal emergency plan approval pursuant to 44 CFR 350 because "there are a number of outstanding deficiencies in the State and local plans and procedures which we cannot certify have been corrected". These issues were raised in the 1981 and 1982 RAC reviews and in the 1982 and 1983 exercise reports.

At the September 1985 exercise the revised local plans were utilized by local officials; however, FEMA did not receive copies for review until June, 1986.

6. Barry Report:

Reception Community Plans ... Pilgrim had three (Hanover, Bridgewater and Taunton). (p. 41)

FEMA Comment:

Although FEMA knew of problems with the Hanover Mall Reception Center, it was not formally informed of the withdrawal of Hanover until February 27, 1987.

7. Barry Report:

[The ETE] is based upon outdated information. Furthermore, it rests on a series of highly controversial assumptions. For example, the Pilgrim ETE assumes that "people not in the planned evacuation boundaries for each case would not choose to evacuate anyway". This ignores consideration of the so-called "shadow phenomenon" which is a theory that holds that during a radiological

emergency there will be widespread spontaneous evacuation. (p. 44)

FEMA Comment:

FEMA conducted a detailed analysis of evacuation issues for the Pilgrim EPZ in response to a January 20, 1984, request from the NRC. FEMA issued its report on May 1, 1984. The State Police Traffic Management Plan provides for its control of evacuation routes several miles beyond the EPZ boundary, thereby enabling it to prevent people beyond the EPZ, who might decide to evacuate, from interfering with the EPZ evacuation traffic.

FEMA does not disagree with the Commonwealth that an updated Evacuation Time Estimate (ETE) may enhance the Pilgrim plans and endorses the state and utility efforts to conduct such a study.

8. Barry Report:

The federal response to the dilemma of state planners who lack authoritative site-specific data and minimum ETE standards is to point out that sheltering, and not evacuation, is the solution in the case of the extremely severe, fast-breaking accident.... Unfortunately, that alternative provides no greater assurance that public health can be protected. [The report then goes on to quote from a transcript of the 1983 Congressional Oversight Hearings between Congressman Patterson and Mr. Krimm, Assistant Associate Director, Office of Natural and Technological Hazards, concerning 'sheltering.] (pp. 45, 46)

FEMA Comment:

A Congressional Oversight Hearing is not the vehicle through which guidance on the efficacy of sheltering as a protective action is provided to state officials.

Agencies of the Federal Government have published information concerning shelter as a protective action. The Environmental Protection Agency has published "Protective Action Evaluation Part II: Evacuation and Sheltering as Protective Actions Against Nuclear Accidents Involving Gaseous Releases, 1978." This document was widely distributed and has been discussed many times with state officials over the years. The U.S. Department of Health and Human Services published in 1983 "Preparedness and Response in Radiation Accidents", which contains information concerning shelter as a protective action. On February 25, 1985, FEMA mailed copies of the HHS document to MCDA and the Massachusetts Department of Public Health. In addition a considerable amount of information on the subject of sheltering as a protective action has been provided to both state civil defense and radiological health personnel by both FEMA and the NRC.

FEMA is studying the subject of sheltering as a protective action. This study may lead to the development of guidelines for making protective action decisions regarding either the use of sheltering versus

evacuation or a combination of these two options.

9. Barry Report:

[A]d hoc planning is clearly inadequate when a fast-breaking incident occurs. (p. 48)

FEMA Comment:

As stated in the July 29, 1987 Self-Initiated Review, this represents a reversal of the Commonwealth's long-held position that it could effectively implement its plan and protect the public utilizing ad hoc resources to assist municipalities during evacuations; and FEMA needs further information in order to evaluate the Commonwealth's ability to protect the public in the event of an accident at Pilgrim. [See, Self-Initiated Review, p.28, p.35.]

It should be noted that some ad hoc response is inevitable in even the best incident specific plans, and sometimes may be the only response possible in some events such as chemical spills, dam breaks and hurricanes for which Massachusetts plans are largely far less developed than existing plans for Pilgrim.

10. Barry Report: Expansion of the EPZ (pp. 63-68)

FEMA Comment:

NRC and FEMA regulations both define the Plume Exposure Pathway EPZ as an area about 10 miles in radius [See, eg., 44CFR 350.2(g)]. Guidance issued jointly by both agencies indicates that the exact size and configuration of the EPZ ... shall be determined by State and local governments in consultation with FEMA and NRC, taking into account such local conditions as demography, topography, land characteristics, access routes and local jurisdiction boundaries. [See, NUREG 0654, FEMA Rep-1, p.11, p.17]

FEMA encourages emergency planning. Communities located beyond the existing Pilgrim Plume Exposure Pathway EPZ established by the Commonwealth and approved by FEMA and the Regional Assistance Committee may wish to consider developing plans appropriate to a nuclear power plant accident as part of their comprehensive emergency plans.

[See, in addition FEMA's comments on this matter in Analysis of Emergency Preparedness Issues at Pilgrim Nuclear Power Plant, July 29, 1987, pp 34-41].

11. Barry Report: Annual Review of Emergency Plans (p. 71)
The Director of Civil Defense shall publish procedures for annual review...of the preparedness and response plans for Pilgrim...

FEMA Comment:

FEMA sent a copy of Guidance Memorandum PR-1 to MCDA on October 4, 1985. GM PR-1 contained specific information concerning the requirement that each state submit an Annual Letter of Certification. FEMA sent letters on July 31, 1986 and January 8, 1987 requesting the Annual Letter of Certification from the Commonwealth. To date, FEMA has not received an Annual Letter of Certification from the Commonwealth. We support Secretary Barry's affirmation that such review must be done. [See, Self-Initiated Review, Section III. F]