

March 7, 1991

MEMORANDUM FOR: Susan F. Shankman, Acting Director  
Project Directorate 1-3  
Division of Reactor Projects - 1/11

FROM: Ronald B. Eaton, Senior Project Manager  
Project Directorate 1-3  
Division of Reactor Projects - 1/11

SUBJECT: MEETING SUMMARY - NRC TASK FORCE AND BOSTON EDISON COMPANY  
ON THE STATUS OF OFF-SITE EMERGENCY PLANNING FOR PILGRIM  
NUCLEAR POWER STATION

At the request of the NRC Task Force reviewing the status of off-site Emergency Preparedness, a meeting between the Task Force and BECo, open to the public to observe, was held in Plymouth, Massachusetts on February 25, 1991. The documents referred to on page 13 of the transcript are in the NRC public document room (PDR) and the local public document room (LPDR) except for the ones enclosed to this summary. The tables below will help in locating the public documents. Also enclosed is a copy of the transcript of the meeting and statements, letters or documents provided by the public at the meeting.

DOCUMENT TABLE

<u>BECO LETTER</u>	<u>DATE</u>	<u>ACCESSION#</u>	<u>MICROFILM ADDRESS</u>
90-119	10/04/90	9010120057	55431-065/55432-230
90-133	11/29/90	9012130116	56112-096/56112-098
91-2.91008	02/01/91	9102060362	56616-039/56616-136

Original signed by  
Ronald B. Eaton, Senior Project Manager  
Project Directorate 1-3  
Division of Reactor Projects - 1/11

Enclosures:

1. BECO Letter 91-018
2. Public Meeting Transcript
3. Statement by Mary C. Ott  
and accompanying documents
4. Statement by Jane A. Fleming
5. Letter of correction to the  
transcript provided by Mary C. Ott,  
dated February 27, 1991

cc: See next page

\*See previous concurrence

OFC	:LA:PDI-3*	:NRR:PEPB*	:PM:PDI-3	: (A)PD:PDI-3
NAME	:MRushbrook	:FKantor	:REaton:dr	:SShankman
DATE	:03/06/91	:03/07/91	:3/7/91	:3/7/91

OFFICIAL RECORD COPY

Document Name: MTG SUMMARY PILGRIM

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B. Grimes

Receptionist (White Flint North)

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F. Kantor

E. Podolak

A. Mohseni

M. Lawless, FEMA

ACRS (10)

J. Caldwell, Region 1

GPA/PA

L. Sapp

E. Tana

D. Jones

L. Plisco

K. Brockman, MS 17G21

K. Abraham, Region 1

M. Rushbrook

J. Johnson, Region 1

cc: Licensee/Applicant & Service List

Mr. George W. Davis

cc:

Mr. R. A. Anderson  
Vice President of Operations  
and Station  
Pilgrim Nuclear Power Station  
RFD #1 Rocky Hill Road  
Plymouth, Massachusetts 02360

Resident Inspector  
U. S. Nuclear Regulatory Commission  
Pilgrim Nuclear Power Station  
Post Office Box 867  
Plymouth, Massachusetts 02360

Mr. David Vogler, Chairman  
Board of Selectmen  
Town Hall  
878 Tremont Street  
Duxbury, Massachusetts 02332

Office of the Commissioner  
Massachusetts Department of  
Environmental Protection  
One Winter Street  
Boston, Massachusetts 02108

Office of the Attorney General  
One Ashburton Place  
20th Floor  
Boston, Massachusetts 02108

Mr. Robert M. Hallisey, Director  
Radiation Control Program  
Massachusetts Department of  
Public Health  
150 Tremont Street, 2nd Floor  
Boston, Massachusetts 02111

Regional Administrator, Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Mr. John Dietrich  
Licensing Division Manager  
Boston Edison Company  
25 Braintree Hill Park  
Braintree, Massachusetts 02184

Pilgrim Nuclear Power Station

Mr. Richard W. Swanson  
Manager, Nuclear Engineering Department  
Boston Edison Company  
25 Braintree Hill Park  
Braintree, Massachusetts 02184

Ms. Elaine D. Robinson  
Nuclear Information Manager  
Pilgrim Nuclear Power Station  
RFD #1, Rocky Hill Road  
Plymouth, Massachusetts 02360

Mr. James Roche  
Secretary of Public Safety  
Executive Office of Public Safety  
One Ashburton Place  
Boston, Massachusetts 02108

Mr. John L. Lovering, Acting Director  
Massachusetts Civil Defense Agency  
400 Worcester Road  
P.O. Box 1496  
Framingham, Massachusetts 02108  
Attn: James Muckerheide

Ms. Paula Babbin, Chairman  
Board of Selectmen  
Town Hall, Main Street  
Carver, Massachusetts 02330

Mr. Richard E. Levin, Chairman  
Board of Selectmen  
Town Hall, Main Street  
870 Moraine Street  
Marshfield, Massachusetts 02360

Mr. Bruce Arons, Chairman  
Board of Selectmen  
Town Hall  
11 Lincoln Street  
Plymouth, Massachusetts 02360

Mr. Frank Maher  
Executive Secretary  
Town Hall  
Bridgewater, Massachusetts 02324

Mr. George W. Davis

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Pilgrim Nuclear Power Station

Mr. Frank R. Mazzilli  
Civil Defense Director  
Town of Carver  
P.O. Box 580  
Carver, Massachusetts 02330

Fire Chief Carl O'Neil  
P.O. Box 1153  
Fire Department Headquarters  
Duxbury, MA 02331-1153

Mr. Dennis Tavares  
Office of Emergency Preparedness  
Six Maple Avenue  
Kingston, Massachusetts 02364

Mr. Arthur Van Tangoli, Chairman  
Board of Selectmen  
Town House  
23 Green Street  
Kingston, Massachusetts 02364

Mr. Roger Provost, Chairman  
Board of Selectmen  
Town Hall  
Bridgewater, Massachusetts 02324

Mr. Dennis Kwiatkowski  
Assistant Associate Director  
Office of Natural and Technological  
Hazards  
Federal Emergency Management Agency  
Washington, D.C. 20472

Mr. Daniel McGonagle  
Civil Defense Director  
1639 Ocean Street  
Marshfield, Massachusetts 02050

Mr. J. Douglas Hadfield  
Civil Defense Director  
Memorial Hall  
83 Court Street  
Plymouth, Massachusetts 02360

Mr. Robert C. Spearin  
Civil Defense Director  
15 Summer Street  
Taunton, Massachusetts 02780

Mr. Richard Johnson, Mayor  
City of Taunton  
City Hall  
15 Summer Street  
Taunton, Massachusetts 02780

Richard H. Strome, Regional Director  
Federal Emergency Management  
Agency  
Region I  
442 J. W. McCormack  
State Office Building  
One Ashburton Place  
Boston, Massachusetts 02108-1698

Chairmen, Citizens  
Urging Responsible Energy  
P. O. Box 2621  
Duxbury, Massachusetts 02331

Enclosure 1

**BOSTON EDISON**

Pilgrim Nuclear Power Station  
Rocky Hill Road  
Plymouth, Massachusetts 02360

February 21, 1991  
BECo Ltr. #91-018

George W. Davis  
Senior Vice President - Nuclear

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

License No. DPR-35  
Docket No. 50-293

**CORRECTION TO OCTOBER 4, 1990 BOSTON EDISON COMPANY RESPONSE  
TO NRC REQUEST FOR INFORMATION ON OFFSITE EMERGENCY PLANNING  
FOR PILGRIM STATION**

On October 4, 1990, Boston Edison Company submitted a response to an NRC request for information on offsite emergency planning (BECo Ltr. 90.119 as amended by BECo Ltr. 90-133, November 29, 1990). Recently, Boston Edison conducted an analysis of mobilization times of the Massachusetts National Guard to staff the Wellesley reception center and of the arrival time of the general public at Wellesley. A copy of that analysis is attached.

As a result of our analysis, Boston Edison has determined that Item Tr-70 at p. II-98 of our October 4, 1990 response contains an inaccurate statement. In Item Tr-70, Boston Edison stated that "[t]he first evacuees arriving at Wellesley would occur at approximately five to six hours after the evacuation had been announced to the public." Based upon the attached memorandum, we anticipate that the first evacuees would arrive at Wellesley within the first 1-1/2 to 2-1/2 hours after the EBS evacuation order.

If you have any questions, please feel free to call me or Ron Varley at (508) 747-9464.

  
G. W. Davis

EOF3650  
Attachment

cc: Mr. William T. Russell  
Associate Director for Inspection  
and Technical Assessment  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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U.S. Nuclear Regulatory Commission  
February 21, 1991  
Page Two

cc (Continued)

Dr. Thomas Murley  
Director, Office of Nuclear Reactor  
Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Frank J. Congel  
Director, Division of Radiation  
Protection and Emergency Preparedness  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Steven A. Varga, Director  
Division of Reactor Projects - I/III  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Robert A. Erickson  
Chief, Emergency Preparedness Branch  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. R. Eaton, Project Manager  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation  
Mail Stop 14D1  
U.S. Nuclear Regulatory Commission  
1 White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Mr. John Macdonald  
Senior NRC Resident  
Pilgrim Nuclear Power Station  
Rocky Hill Road  
Plymouth, MA 02360

U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406

Mr. Richard Strome  
Regional Director  
Federal Emergency Management Agency  
J. W. McCormack Post Office  
& Court House  
Boston, MA 02109

OFFICE MEMORANDUM

Boston Edison Company

To: R. A. Varley

From: R. J. Markovich

Record Type A4.08

Date: February 15, 1991

Dept. Doc. EP91-116

Non-Safety Related

Subject: Timely Mobilization of the Massachusetts National  
Guard to Staff Wellesley

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Distribution:

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I. Introduction

This memorandum summarizes Boston Edison's analysis of the ability of the Massachusetts National Guard (MNG) to staff the monitoring and decontamination station (MDS) at the Wellesley reception center in a timely manner. The MNG performs monitoring, and if necessary, decontamination of evacuees at the Wellesley reception center. As discussed below, the MNG can staff the MDS at Wellesley in a timely manner.

There are two basic components in the analysis: (1) the estimated time it will take the MNG and Massachusetts Department of Public Works (MDPW) to staff and activate the MDS at the reception center; and (2) the estimated time it will take for evacuees to arrive at the reception center facility. Each of these is discussed below. A timeline is also provided which graphically portrays the anticipated sequence of events leading up to full facility staffing.



Before summarizing the analysis, it should be noted that the most critical element of the emergency response effort is to assure that persons are promptly evacuated from the EPZ (if that is the applicable protective action directive). It should also be noted that while the analysis summarized below focuses on the ability to timely staff the MDS at Wellesley and process evacuees in the first several hours of an evacuation, the applicable FEMA criterion addresses the capability to monitor 20 percent of the evacuating population in about 12 hours. There is no criterion of which we are aware which governs the number of persons to be processed during the first few hours of an emergency.

II. Estimated Time of Arrival of the Massachusetts National Guard at Wellesley and Activation of the Monitoring and Decontamination Station at the Facility

The MNG is part of the emergency response team assigned to the Wellesley reception center. The MNG performs monitoring, and if necessary, decontamination of evacuees reporting to Wellesley. (See "Wellesley Reception Center", IP-05 (Draft-4, December 19, 1990)).

Applicable Radiological Emergency Response Plan (RERP) procedures call for the MNG to be notified and mobilize early on in an emergency at the Alert level and to prepare the MDS at Wellesley at the Site Area Emergency.\*] (See "Wellesley Reception Center", IP-05 (Draft-4, December 19, 1990)). This ensures that in most emergencies, the MNG

\*] Pursuant to MNG procedures, the MNG does not activate until the Governor declares a state of emergency. The analysis contained in this memorandum does not quantify the time needed to obtain a Governor's declaration. That process may add some additional time to the mobilization sequence. However, based on discussions with MCDA, we understand that in the event of an immediate General Emergency at Pilgrim, action would be promptly initiated to establish a state of emergency.



would be prepared to monitor, and if necessary, decontaminate evacuees well in advance of any protective action directive to the general public to evacuate the Pilgrim EP2.

In the unlikely event of an immediate General Emergency, the Massachusetts Department of Public Works staff located at the Wellesley facility is responsible for setting up the Wellesley facility prior to the arrival of the MNG. (See "Reception Center Setup", IP-17 (Draft-3, February 1, 1990)). Initial set-up of the MDS at the Wellesley facility takes approximately 30 minutes. This entails wheeling at least one portal monitor about 200 feet from storage to its set-up location. This also includes gathering a few hand held monitors used for monitoring vehicles, and placing a number of traffic cones outside the facility. Complete set-up of the MDS at the facility including set-up of: monitoring and decontamination areas, 2 portal monitors, and traffic areas should take approximately one hour. Complete set-up of all aspects of the Wellesley reception center should take approximately 2 hours.

If set-up of the Wellesley facility is called for during working hours, set-up can begin almost immediately upon the DPW staff being notified, because the DPW staff is located at Wellesley. (See "MCDA Operations Officer" IP-03 (Draft-07, January 21, 1991)). During off-hours, the MDPW dispatcher is notified by MCDA at about the same time the MNG is notified. (See "MCDA Security Guard" IP-07 (Draft-06, December 10, 1990)). The MDPW dispatcher then notifies the MDPW staff via telephones and pagers to report to Wellesley. (See "Wellesley Reception Center RERP", Section II.F.4 (Draft-2, January 17, 1991)). Based on

conversations with the MDPW Emergency Response Coordinator, MDPW staff response time to Wellesley would be minimal because most of the MDPW staff live in the vicinity of Wellesley. In addition, the MDPW staff has received training in set-up of the facility, registration of evacuees, and in basic monitoring operations.

Based upon recent conversations between Colonel Gavigan (MNG) and members of my staff, in the very unlikely scenario where an immediate General Emergency is declared at Pilgrim, the MNG can have at least 10 people at Wellesley within about one hour of notification.<sup>\*\*</sup> Within about two hours, the MNG can have at least 20 personnel at Wellesley and within about three hours of notification, 40 MNG personnel can be at Wellesley. Finally, within about four hours of notification, the full complement of MNG personnel (48) assigned to perform the monitoring, and decontamination of evacuees at Wellesley (one shift) will be at the facility. According to MCDA, it has been their understanding, as well, that the MNG will be able to promptly mobilize (i.e., to make personnel available in less than 4 - 6 hours).

Only 6 to 8 persons are needed to perform the initial monitoring of evacuees and vehicles, including vehicle monitors and a recorder, 1 portal monitor operator, and 1 initial personnel monitor and a recorder. Basic monitoring and decontamination of evacuees can be handled by 18 to 20 people. The 18 to 20 people include: 2 portal

<sup>\*\*</sup> Boston Edison's October 4, 1990 letter to the NRC (Item Tr-70 at p. II-98) generally states that "an advance [MNG] party could be at Wellesley in one to four hours, with remaining personnel arriving at intervals up to six to twelve hours." Those estimates have since been refined. While we understand that it may be the MNG's general policy or practice to respond to emergency situations in about 4 - 8 hours, our discussions, as mentioned above, indicate the ability to more promptly mobilize to support RERP-related activities.

monitor operators, 2 initial personnel monitors, 1 personnel recorder, 6 vehicle monitors, 1 vehicle recorder, 4 secondary personnel monitors, and 2 personnel decontamination assistants, and 2 vehicle decontamination assistants.

Therefore, even at the earliest stages of a fast-breaking event in which an immediate General Emergency is declared, sufficient HING personnel would be available to begin monitoring operations. (e.g., one hour after notification). Furthermore, DPW personnel located at Wellesley or near it would conduct facility set-up and this should not be a limiting factor in promptly initiating reception center operations. Finally, in all but the most unlikely scenarios, facility staffing and preparation will occur well prior to the declaration of a General Emergency.

### III. Estimated Arrival Times of Evacuees

As indicated in the attached table, in the unlikely event of an immediate General Emergency and the protective action directive is a rapid evacuation, the earliest that any evacuees would be expected to arrive at Wellesley is approximately one hour and thirty minutes<sup>\*\*\*</sup> after an evacuation of the EPZ is ordered. This assumes a quick departure from the EPZ, clothes packed, family gathered and car gassed.

<sup>\*\*\*</sup> In Boston Edison's October 4, 1990 Letter to the NRC (Item Tr-70 at p. II-98), Boston Edison stated that the first evacuees would arrive at Wellesley about five to six hours after the public was notified to evacuate. The statement that the first evacuees would arrive at Wellesley in about five to six hours is inaccurate. More detailed analysis results in a better estimate of about one hour and thirty minutes as discussed in this memorandum.

IV. Comparison of MNG and General Public Arrival Times at Wellesley

In the unlikely event of an immediate General Emergency, the MNG would receive notification from MCDA approximately 15 minutes before the general public receives the EBS message to evacuate. (See "MCDA Operations Officer", IP-03 (Draft-07, January 21, 1991); "MCDA Security Guard", IP-07 (Draft-06, December 10, 1990). Approximately 10 personnel from the MNG should arrive at Wellesley about 45 minutes before any evacuees arrive. These 10 members of the MNG could begin monitoring of any early arriving evacuees. Additionally, approximately 15 minutes after the first evacuees have arrived at Wellesley, a basic monitoring and decontamination crew consisting of 18 to 20 members of the MNG would have arrived at Wellesley. This crew could adequately monitor and begin to decontaminate the initial evacuees arriving at Wellesley. Finally, in the event of an immediate General Emergency, the Wellesley facility would be fully staffed by the MNG four hours after notification.

V. Conclusion

In the unlikely event of an immediate General Emergency at Pilgrim, the Wellesley Reception Center would be set-up in a timely manner by the DPW staff. Any early arriving evacuees at Wellesley could be monitored, and if necessary, decontaminated by the MNG in a timely fashion. Additionally, as portrayed in the attached timeline:

- Approximately 10 personnel from the MNG will arrive at Wellesley 45 minutes before the first evacuees arrive. Upon the MNG's arrival, the DPW staff should have completed initial set-up of the monitoring equipment at Wellesley. These 10 members of the MNG could begin monitoring any early arriving evacuees.
- Approximately fifteen minutes before the first evacuees have arrived at Wellesley, the full complement of MDS equipment should be in place.
- A basic monitoring and decontamination crew consisting of 18-20 members of the MNG would be operational at Wellesley within about fifteen minutes after the first evacuees arrive. This crew could adequately monitor and begin to decontaminate the initial evacuees arriving at Wellesley.
- Finally, in the event of an immediate General Emergency, the MDS at Wellesley would be fully staffed by the MNG four hours after notification.

TABLE

Cumulative Number of General Public Arriving at  
Wellesley Reception Center Prior to  
Full Facility Staff Mobilization\*|

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<u>Elapsed Time (Hrs.)</u> <u>from Order to Evacuate</u>	<u>Cumulative</u> <u>Number of Arrivals</u> **
:30	0
1:00	0
1:30 to 2:30	0 to 513
2:30 to 3:30	513 to 1289
3:30 to 4:00***	1289 to 1950

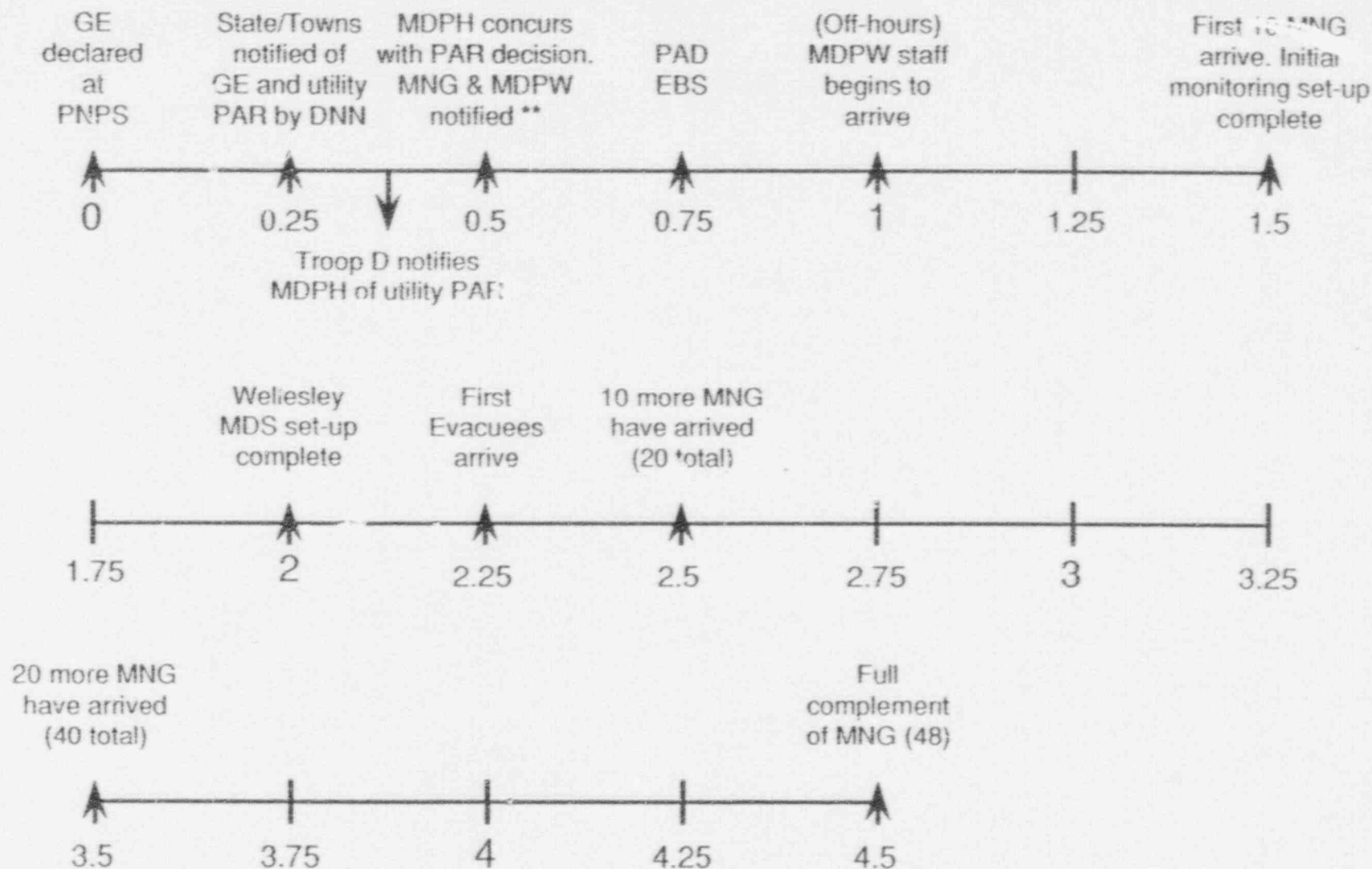
\*| This table is based on an analysis of the arrival times of the general public at Wellesley conducted by KLD Associates Inc.

\*\*| Number of arrivals is based on summer weekend, midday conditions.

\*\*\*| Full complement of MNG (48) have arrived.



# MOBILIZATION OF MNG TO STAFF WELLESLEY\*



\* All times are approximate.

\*\* Time needed to obtain Governor's State of Emergency Declaration not quantified.