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October 9, 1979

Mr. Frank Pagano
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Pagano:

TRIP REPORT ON SITE VISIT TO PILGRIM NUCLEAR POWER STATION -
EMERGENCY PLANNING REVIEW

The site was visited by NRC Emergency Planning Review Team No. 4 during the week of September 25-27, 1979. The team members were Tom McKenna of NRC Headquarters, John Sears of NRC Headquarters, Robert Bores of NRC I&E Region I, Mr. Chamberlain of LASL, Jack Selby and Dan Glenn of Battelle-Northwest. The following report is a summary of the reviews, discussions and meetings that were conducted. Additionally, John Hanna, NRC Pilgrim Project Manager and Robert Defayette, NRC, participated in the two days of public meetings.

Tuesday, September 25, 1979

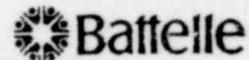
The six team members met at 8:30 a.m. with the following Boston-Edison personnel:

Paul McGuire, Station Manager
Rich Machon, Assistant Station Manager
Harry Balfour, Emergency Planning Coordinator
Lon Sowdon, Health Physicist
Robin Schult, Health Physics Supervisor
Chris Bowman, Health Physics Engineer
G. Lawald, Law Firm representing Boston Edison

This initial discussion centered around the planned activities for the visit. The team was told that Boston-Edison is considering the use of a DC powered computer at the technical support center to provide all available data from the reactor control room as an alternative to close coupling this center to the control room. It was pointed out the Boston-Edison is concerned about action levels and response of offsite agencies to small occurrences.

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After this initial meeting, the team received a tour of the facility conducted by Mr. Balfor, Mr. Schult and Ms. Bowman. At the time of the visit the reactor was operating at 80% power, thus limiting the areas that could be visited.

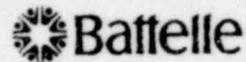
The first portion of the site visit consisted of a review of the emergency response plan as it now exists. This review indicated a reasonable understanding of what will be required, but also raised several specific questions. These included:

- 1) What is the function, locations and design of the various centers including emergency control center, technical support center and alternate setup?
- 2) How many people should be accommodated at the various centers?
- 3) What is the exact role of the NRC during an emergency?
- 4) Should centers be designed from the point of view that they can be manned under the worst situation (hardened), equipped for long-term occupancy, seismic Class 1, etc.)?
- 5) What is the nature of the monitoring instrumentation to be used for emergency purposes? Do you need to provide a qualitative breakdown of isotopes present or provide a rough cut indication of activity present? (Obtaining a sample of gas from within containment for analyses outside containment is a significant problem.)
- 6) Based on TMI experience, is there a unique mix or mixes of isotopes that can be related to certain types of accidents?
- 7) Are there any good continuous monitors for field use?

These concerns were discussed at length during the remainder of the visit. However, the only real guidance provided was to "state your position" in the emergency plans that are due in November.

Upon completion of the review of the existing emergency response plan, a visit was made to the present emergency control center. Discussion centered on the function of the center together with communications systems and the emergency equipment contained therein. The tour was concluded by a visit to the control room.

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Wednesday, September 26, 1979

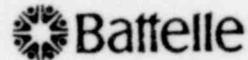
The team members met with Mr. Balfor, Mr. Schult and Ms. Bowman in Memorial Hall, Plymouth, in a public meeting to continue discussing the acceptance criteria and a brief review of a series of questions generated by Mr. McKenna on the existing Pilgrim Emergency Plan. This review was uneventful with the Boston-Edison personnel seemingly unwilling to discuss anything in much detail in a public forum. Most of the time was spent in going over the acceptance criteria. The public attendance averaged about 15 with most of these either reporters or members of a local intervenor group. Some of the problems identified were:

- 1) The desire of Boston-Edison to hold meetings with state and local personnel to characterize what leads to establishment of "EALs". "PAGs" do not necessarily lead to evacuation.
- 2) In notifying the public, how should special areas, such as beaches or hospitals be treated? Need for verification scheme (call back?).
- 3) How should instructions be given? The use of different signals to identify actions will make it difficult to effectively train affected personnel in needed response.
- 4) Further guidance on location of centers and size is expected by Boston-Edison. Tom indicated not to expect much more. In the plan or accompanying documentation Boston-Edison should clearly state assumptions, philosophy and resolution of human factor problems. The review will be based on this material.
- 5) Need for measurable/observable training objective.

Thursday, September 27, 1979

The team members met with state and local representatives in Memorial Hall. The state representatives included the Head of Civil Defense, Bob Cunningham; Brenden Knowland, Deputy; members of the Department of Public Health (Al Caprone, Bill Bell) and the State Police. Locally, several small towns, including Plymouth and Duxberry, among others, were represented plus local and regional civil defense personnel.

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Actual discussion of state and local plans began about 10:00 a.m. Much of the next two hours was devoted to political rhetoric and discussions of who will fund an emergency notification system of seemingly unknown characteristics. Some of the positions taken were:

State Civil Defense

- 1) Fast warning may not be the best although the capabilities may exist.
- 2) Current plans call for 5 mile evacuation zone. Feel that 10 mile plan will be in place by the end of the year.
- 3) Alerting and warning is the responsibility of local elected officials not Boston-Edison.
- 4) Feel that Public Health personnel should be confirming or evaluating the situation before alerting public.

State Police

- 1) Do not feel a seldom used alert program (unlike severe weather warning system) is too useful.
- 2) Don't know what 15 or 30 minute notification means. Does this mean that evacuation would be started within the entire 10 miles immediately rather than the first one or two hours?
- 3) How long it would take to accomplish evacuation should be important.
- 4) Several minutes (3 to 5) should be used to determine what protective action is most appropriate based on event, weather conditions, etc.
- 5) Audible alarm system could be counter-productive. More information will be required.

The one hour public comment section was chaired by Frank Pagano. Most of the time was occupied by local pressure groups. There were a few questions that should have been answered during the meeting rather than after the meeting was over. There was a complaint about short notification and short discussion period.

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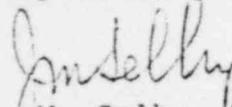


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General Observations

- 1) Need a summary handout for meetings that explains purpose of meeting, what NRC is trying to accomplish, why (extreme conservatism, ALARA, continue to accumulate good record, etc.).
- 2) Try to answer all questions at public session.
- 3) Need for a nationwide approach to public warning system (possibly extension of several weather-warning programs to nuclear - the siren simply alerts public to listen to the radio for instructions). This is necessary to assure proper training and understanding of public throughout the United States.
- 4) Because of the severe impact on the instrument industry following request from as many as 50 utilities, each wanting as many as five different types of instruments that are to be designed and built in undefined quantities to be operational by January 1981, it appears that the instrument requirements should be consolidated for the entire industry. (Steering committee made up of representatives from NRC and consultants, utility and instrument manufacturers to define "generic" requirements.
- 5) Need to define purpose of various centers and whether they are to be operational during worst case. Most or all of these centers may need to be located offsite. Philosophy should then be most convenient for the "normal" occurrences or usable under all conditions. Generally, these are not compatible.

Respectfully submitted,


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Radiation Standards & Engineering


R. D. Glenn, Senior Development Engineer
Environmental Evaluations

JMS:RDG:lsp

cc: WL Axelson
AE Desrosiers
Team 4 File

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