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December 16, 1980

Mr. Thomas McKenna
Division of Emergency Preparedness
Emergency Preparedness Licensing Branch
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Tom:

Attached are working papers on PNL's review of emergency plans for the Haddam Neck, Millstone, Vermont Yankee and Maine Yankee Nuclear Power Plants.

We are behind schedule on our final reports and are sending these working papers ahead in the interest of saving some time. The final reports will be issued by the end of December.

Please do not hesitate to call if I can provide any additional information.

Very truly yours,

J. G. Myers,
Consultant
Health Physics Technology Section

JGM/tp

cc: A. E. Desrosiers, Project Manager
F. G. Pagano, NRC
LB/File

1003
5.11

F 8012220406

Comments by Chris Parnitz on Millstone site

In my specific comments on Haddam Neck on the first page under Section 4, I used the term "Emergency Coordinator" in the second paragraph and that should be "Director of Site Emergency Operations." But, here goes my comments on *Millstone* milestone ^{In the} General Comments Section, with reference to Page 6-14, Parag. 6.4.1.d "Evacuation and relocation," It notes that in case of evacuation non-emergency personnel onsite will proceed to the onsite RC located in the Unit 2 Condensate Polishing Facility.

With reference to Page 6-23, Paragraph 6.5.2, "Decontamination and First Aid," it is noted that "There is an onsite decontamination area equipped with decontamination materials located at the Health Physics control offices. In an emergency, the location for decontamination/monitoring of all personnel within the protected area will be the onsite RC while the designated assembly area will serve as the decontamination/monitoring location for all personnel outside the protected area."

With reference to Page 7-3, Paragraph 7.1.4 "Onsite Resources Center (Onsite RC)", it is noted that the "the Onsite RC is located in the nearsite EOF."

There appears to be what could be a serious problem or perhaps an error in terminology as to where exactly the Onsite RC is located. Also, I am unable to determine where the "Health Physics control offices are located. This is due, in part, by lack of discussion in the text and in part by the omission of certain figures within the text or within the appendices.

The above comments and the experience at TMI brings up the problem that I cannot resolve on the basis of the information presented in the plan. The problem related to the possible loss of resources and critical facilities in an accident involving one unit of a two unit nuclear power station. You may recall that at TMI, some of the Health Physics counting rooms, analytical

laboratories, etc. in Unit 1 (which was down at the time of the accident in Unit 2) could not be used because of either contamination or high background ^{readings} ratings. In addition, many of the radiation survey instruments, shared between the units had been ~~used~~ lost or become defective during the outage of Unit 1. Also, there were some unexpected contaminated lines running to Unit 1 from Unit 2, which was not suppose to happen in case of an accident in either Unit.

Millstone

It appears that the two units at ~~Rosston~~ are closer together, and perhaps more integrated than the two TMI units. However, I have no way of judging ~~this from the information presented in the plan~~. Therefore, as a result of a lack of information, I am concerned that the same types of problems may exist at Millstone as existed at TMI.

EMERGENCY PREPAREDNESS PROGRAM REPORT

SITE: Millstone Nuclear Power Plant

DATE OF REPORT: 12/10/80 REVISION/DRAFT NO: 1

AUTHOR: Marjorie R. Greene

HOW SENT: 1 copy 1st class
mail to Clair Palmiter DATE: 12/10/80
1 copy Pouch Mail to
Art Desrosiers

CONTENTS: Planning Standards C, E, F and G

NOTE: Planning Standards C, E, F and G in the Millstone plan are identical to the Planning Standards in the Connecticut Yankee plan. Thus there are only minor word differences in the two evaluations. Also, an error was discovered under Planning Standard E for the Connecticut Yankee plan: Point 1 under Criteria Analyses states that "Criteria 1, 2, 3 and 6 are fully satisfied." It should read Criteria 1, 2 and 3 are fully satisfied." Point 3 in the same section explains the deficiency for Criterion 6.

PLANNING STANDARD C

Arrangements for requesting and effectively using assistance resources have been made, that arrangements to accommodate state and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

SYNOPSIS: The Millstone Nuclear Power Station Emergency Plan specifies the person authorized to request federal assistance, specifies the type of federal resources expected and the response time, acknowledges the provision for dispatch of a representative to principal offsite EOCs, and identifies radiological laboratories and other facilities and their general capabilities.

EVALUATION: The licensee's plan partially satisfies Planning Standard C. The evaluation is substantiated by analysis of the plan content, with regard to the four interpretive criteria, as discussed below.

CRITERIA ANALYSES:

1. Criteria 2b and 3 are fully satisfied, although it would be useful to specify the name of the radiological laboratory in Natick. Criterion 2a does not apply to the licensee.
2. Criterion 1, page 36 of NUREG-0654, is partially satisfied. Parts a and b are covered in the plan, however there is no discussion of licensee, state and local resources needed to support the Federal response (part c).
3. In response to criterion 4, page 37 of NUREG-0654, the plan states that assistance can be obtained from state and local agencies, and the U.S. Coast Guard and Amtrak. Letters of agreement are provided for the Coast Guard and Amtrak; the reader is referred to the State Plan for documentation of state and local support. Relevant sections of the State Plan are not included, nor are there any letters from state and local agencies indicating support.

PLANNING STANDARD E

Procedures have been established for notification, by the licensee, of state and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume-exposure pathway Emergency Planning Zone have been established.

SYNOPSIS: The Millstone Nuclear Power Station Emergency Plan addresses the procedures that describe mutually agreeable bases for notification of response organizations, mobilization of response personnel, general categories of content for the initial message, and the existence of a plan to notify the EPZ population.

EVALUATION: The licensee's plan partially satisfies Planning Standard E. The evaluation is substantiated by analysis of the plan content, with regard to the seven criteria, as discussed below.

CRITERIA ANALYSES:

1. Criteria 1, 2, and 3 are fully satisfied. Criterion 5 does not apply to the licensee.
2. Criterion 4, pages 40 and 41 of NUREG-0654, must be judged as not addressed. The Appendix which contains the Incident Report Form is not included in this draft.
3. In support of Criterion 6, page 41 of NUREG-0654, the plan states that the public alerting system is described in the State Plan. There is insufficient documentation in the licensee plan that such means of notification exist. As required by 0654, it is the licensee's responsibility to ensure that such means exist.
4. Criterion 7, page 42 of NUREG-0654, is not addressed. The licensee incorrectly assumes (according to their cross-referencing to NUREG-0654) that the provision of written messages to the public is not their responsibility.

PLANNING STANDARD F

Provisions exist for prompt communications among response organizations to emergency personnel and to the public.

SYNOPSIS: The Millstone Nuclear Power Station Emergency Plan addresses communication plans with state and local agencies, communication plans with the NRC, and periodic testing of communications.

EVALUATION: The licensee's plan partially satisfies Planning Standard F. This evaluation is substantiated by analysis of the plan content, with regard to the three interpretive criteria as addressed below.

CRITERIA ANALYSES:

1. Criteria 1f and 3 are fully satisfied.
2. Criteria 1a-e, page 43 of NUREG-0654, are only partially addressed. Figures 7-1 and 6-1, which show communication and notification links in detail, are not included in this draft. Thus it is impossible to evaluate these criteria fully.
3. Criterion 2, page 44 of NUREG-0654, is not addressed. The plan does not specify a coordinated communication link for fixed and mobile medical support facilities.

PLANNING STANDARD G

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency, including the physical location or locations, are established in advance, and procedures for coordinated dissemination of information to the public are established.

SYNOPSIS: The Millstone Nuclear Power Station Emergency Plan addresses general public information programs they have available, the location of the media center, the role of the spokesperson and an annual information program.

EVALUATION: The licensee's plan partially satisfies Planning Standard G. This evaluation is substantiated by analysis of the plan content, with regard to the five criteria, as discussed below.

CRITERIA ANALYSES:

1. Criteria 3a and 4a and b are fully satisfied.
2. In support of Criteria 1 and 2, page 45 and 46 of NUREG-0654, the plan addresses the existence of background information on radiation, however the plan fails to document provisions for specific information on protective actions necessary in a radiation emergency at Millstone. Also there is no discussion of a method of dissemination that would likely reach most households in the EPZ. The existing information program is passive; it does not include the active dissemination of information to households.
3. Criterion 3b, page 46 of NUREG-0654, is not addressed. There is no discussion of limited space at the EOF for the news media.
4. Criterion 4c, page 46 of NUREG-0654, is not addressed.
5. Criterion 5, page 46 of NUREG-0654, is partially addressed. In the discussion of the annual information program available, there is no specific mention that the media will be invited or that media needs will be discussed in the program.

CLAIRE C. PALMITER
714 University Blvd. West
Silver Spring, Maryland 20901

November 13, 1980

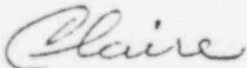
Mr. A. E. Desrosiers
Radiation Standards and Engineering
Battelle Pacific Northwest Laboratories
Battelle Blvd.
Richland, Washington 99352

Dear Art,

Attached please find my comments on the Vermont Yankee
Emergency Plan. They are very similar to those made on
Yankee Rowe.

I am sending a copy to Tom McKenna for his information with
a note indicating that the comments are in "draft form"
and that you will be sending the formal comments soon.
I look forward in seeing you this next week.

Sincerely yours,



Claire C. Palmiter

Enclosure

November 14, 1980

General Comments

on

Vermont Yankee Nuclear Power Station

Emergency Plan

The plan is well prepared and there is little if any extraneous information contained in it. In fact, there might be additional information, some of which is noted in my specific comments that should go into the plan.

In the plan the licensee indicates that he, for example, will:

(1) be requesting additional telephone lines, (2) hiring new HP technicians, (3) completing studies to determine needs for auxiliary power, (4) assign individuals to certain positions in the plan, and (5) update agreements with federal, state and local agencies or groups. However, there is no time-table presented for completion of all these tasks.

With reference to 0654 B criteria and section 8.21 of the plan, I am concerned that the Chemistry and Health Physics Supervisor's authority and responsibilities are not sufficiently defined and clarified. My specific comments with recommendations reflect this concern. TMI has shown us that management and perhaps even the HP organizations within the power plants have caused the false impression that radiation protection activities are of minor importance compared to producing electric power. With the judicial use of such instruments as NUREG 0654, review of plans and observation of emergency plan exercises, these false impressions can be minimized.

It does not appear to me that there are major problems with this plan. Additions to the plan, in accordance with NUREG 0654, have to be made. However, the additions or changes should not be a major task for the licensee.

It also is evident that a licensee can prepare, on paper, a well thought out emergency plan. However, the execution of the plan in various exercises or tests and the attitude of the licensee's top management and employees to the results of such exercises are of cardinal importance.

November 14, 1980

Specific Comments

on

Vermont Yankee Nuclear Power Station

Emergency Plan

Section 5

5.0, page 21: Paragraph 5.0 and Appendix A of plan do not meet the NUREG 0654 criterion I.1 new statement "[Facility emergency procedures shall specify the kinds of instruments being used and their capabilities.]". The reason being that the licensee did not have the latest version of 0654 when the plan was prepared.

Section 6

6.1.2, pages 26,27: With reference to 0654 criterion H.9, this paragraph does not discuss having "portable lighting" or "cameras" in the OSC. The OSC is not listed in Appendix B.

6.1.7, page 30: Can the "company spokesman" at the EOC be better identified?

6.2.3, page 32: With reference to 0654 criteria H.8 and I.5, this paragraph and Appendix D of the plan do not discuss all the acceptance criteria in 0654, Appendix 2.

6.2.5, page 34, 1st paragraph: When will the more extensive monitoring program be available? (appropriate time period).

In the 2nd paragraph the Yankee Environmental Lab is discussed. This lab should be reviewed, during an on-site visit.

Section 7

7.1, page 35: What is the approximate time period when the Nuclear Alert System will be expanded (as noted in the 1st paragraph),

7.2, page 36: The 2nd sentence is incomplete. Something has been left out. Also when or by what date will the "net" be expanded to the primary and alternate ECC's?

7.3, page 36: When will the microwave and radio systems be expanded into the TSC?

7.4, page 37: When will the Plant Radio next be expanded to the TSC?

7.7, page 39: Are the telephone wire pairs now available?

7.8, page 39: When will the study to determine auxiliary power requirement be completed?

Section 8

8.2, page 41: Table 8.2 is referenced; however the text and Table "positions" or "Titles" of people are different.

8.2.1, page 41: Although not the same in all details, 8.2.1 meets the requirements of 0654 criteria B.5 and B.8.c. In the paragraph under item 4 on page 42, the RM is listed as the "Manager of Operations of Vermont Yankee Nuclear Power Corporation." Table 8.2 lists the RM as the "Vice President of the Corporation"; are these one in the same?

8.2.1, page 43: There should be an item "7)" to "Assign the OSC Coordinator" (see page 46 under OSC).

8.2.1, page 43: The description of the Plant Emergency Director does not per se, meet the requirements of 0654 criterion B.4, since it does not discuss the "responsibilities which may not be delegated."

8.2.1, page 45: Under "The Emergency Coordinator", 2nd sentence: "Although it is probably understood, the sentence might better read: "The Emergency Coordinator will direct off-site activities of the licensee employees and will" (underlined words added.)

8.2.1, page 46: 1st sentence under "Operations Support Center Coordinator": Can "a member of the plant staff . . ." be better identified in the plan?

8.2.1, page 46: Chemistry and Health Physics Supervisor: In the 1st paragraph it is not clear where the C and HP Supervisor will be in the event of an emergency. In the ECC?

The C and HP Supervisor, in cooperation with the Security Supervisor, should have the major responsibility in establishing a control system whereby they know who is in what area of the plant; survey and decontamination of employees, etc. This system was lacking at TMI.

Under item 1): It should include "Evaluate on- and off-site doses. . ."

Under item 3): It should include "dosimetry control, survey and other types of instrumentation, etc. . . "

With the reference to these responsibilities of the C and HP Supervisor, those in Table 8.1 and Figure 8.7, there is little information mentioned for the decontamination of workers and equipment on-site during an emergency.

Under item 4): When does the C and HP Supervisor "Define administrative limits . . ." ? What references and guidance does he have in defining these limits?

8.2.1, page 48: Under the last full paragraph under "Radiological and Environmental Technical Assistant." The previous paragraph cites the RETA and staffs' responsibilities, while the referenced paragraph states that he and his staff's immediate priority is to analyze off-site air samples. If this is so, who is concentrating ^{on} on-site personnel who may be going in or coming out of contaminated plant areas, etc.?

8.2.1, pages 49 and 50: The Training Coordinator coordinates and expedites plans and schedules for the recovery organization, recovery plans and schedules with all emergency management members. Unless there is additional guidance and specific details for what this "Coordinator" is to do, I visualize a "busy-body" type of an individual who may get in the way of those who are really attempting to solve the emergency. Why not limit his responsibilities to "1)", "3)", and "4)" on pages 49 and 50?

The T. Coordinator is also "authorized to (2) assemble the necessary resources to terminate the accident." This appears to conflict with, among other things, the responsibilities mentioned in 8.2.2, pages 52 etc, for the Nuclear Services Division.

8.2.1, page ⁵¹49: Under the Security Supervisor, item 4), I suggest that it should read, "In cooperation with the C and HP Supervisor provide accountability. . . ." Also in comparing Yankee Rowe with Vermont Yankee plans it is noted that the YR has an item 5), "Maintains plant security with the Plant Security Plan." I assume it should be in the VY plan also.

8.2.1, page 51: Can the person or his official title within the VYNPC for the Communications Director be better defined?

8.2.2, page 52: This subsection appears to meet the requirements of 0654 criteria B.6, B.8a and b.

Under "Engineering Support Director" can "an officer . . ." be better defined or identified by title?

8.3, page 57: Under item 3), should it read "Decontaminate, where possible, affected workers, areas and/or equipment"?

CR Table 8.1, items 5 and 6: Under "Basic Functions" and my comment on page 46 of plan, the use of the term "Define" is not correct. "Determine," "Analyze" or "Evaluate" are better terms. I'm curious! Why was the important

"Note" on Table 8.1 of Yankee Rowe Table 8.1, not placed here on the Vermont Yankee Table 8.1?

Table 8.2, item 12: With reference to my comment on page 51, can the "Alternate" be better identified by title?

Figure 8.4, "Chemistry and Health Physics Supervisor" position in the organization: With reference to my comment on page 46, and its description of the chain of command, there should be a direct line from the C and HP Supervisor to the Plant Superintendent. TMI has shown us that the HP organization and activities were not considered too important, and consequently they were given low priority. This should not happen again.

Figure 8.7: In reference to the last "Note" on the figure, and my comments on page 46, the contamination control activities should be the responsibility of the C and HP Supervisor and his staff; and this should be clearly stated. Or if it is not the C and HP Supervisor's responsibility, then the reasons why should also be clearly stated.

Section 9

9.2.3, item 12, page 67: Should this item read "Protective measures (sheltering, etc.) will be recommended by the Recovery Manager and such measures will be undertaken by the state . . ." It is important to be specific as to who is going to do this task of recommending actions to the state and local authorities.

Section 10

With reference to 0654 criterion I.10, and the licensees Appendix H in this plan, Section 10 and paragraph 10.1.2 discuss air samples (primarily). Criterion I.10 discusses the need to evaluate various contamination levels, water and air activity; and relate these to dose rates from certain key

isotopes. Therefore, more information should be in Section 10 on the other contamination possibilities and related methods of dose estimates.

Section 11

11.1, page 77: With reference to the lead-in statements to item 1), the Departments of Public Health of Vermont, Massachusetts, and New Hampshire will call Vermont Yankee. Should not this be clear, and state a "designated individual or office" at Vermont Yankee? Per item 1), I do not understand what it intends to convey. The term "of caller" has me perplexed.

Section 12

12.1.2, item 3), page 83: The most recent version of 0654 states "quarterly" test. I assume the licensee did not have the latest version when the plan was prepared.

12.1.3, page 83: With reference to 0654 criterion N. 2.b., do the technical specifications state annual drills?

12.1.5, page 83, 2nd sentence: 0654 criterion N.2.d specifies "all sample media (e.g., water, vegetation, soil, and air)."

12.1.6, page 83: This paragraph does not include action on 0654 criterion N.2.e (2) which states "Analyses of inplant liquid samples with actual elevated radiation levels including use of the post-accident sampling system shall be included in the Health Physics drills by licensees annually." (underling added)

12.1.8, page 85: I believe that the top two paragraphs should be revised to incorporate the fact that the top management at Vermont Yankee, and the Plant Superintendent and the President and Vice President of the Nuclear Services Division should review and study the Observer's Evaluation Form and Documentation Form before the Plant Operations Review Committee takes its actions. Then top management can request action by PORC. This

recommended type of review process gives top management a better idea of what is going on in their plant, and to some extent prohibits the PORC from possibly "watering down" some of the Observer's recommendation.

12.2.7 and 12.2.8, page 89: These paragraphs cover only Fire Department and Brigade members, which is fine. However, with reference to 0654 criterion 0.3.d, police and security personnel also should receive appropriate training; and the subject should be covered in this section.

12.3, page 90: Per 0654 criterion 0.4.g, and Appendix H of the Plan which references this paragraph, there is no mention here of "local support services personnel." Are training programs for these personnel possibly mentioned in OP 3005, the document referenced in 12.3? If not, the subject should be included in this section.

Appendix A

Table A.1, under Unusual Event 12, and related EAL's ; Are the EAL's covered by the Yankee Rowe Security Contingency Plan a classified security matter? Is there anyone within Battelle or NRC who reviews these EAL's?

Appendix E

When are the state and local plans expected to be completed?
Approximate date?

Appendix F

The information presented in this appendix is straightforward; however, it is rather brief. Under the present circumstances, I am unable to determine whether, as specified in 0654 criterion I.1, this Appendix F covers a sufficient spectrum of off-normal conditions and accidents.

On page 111, 1st paragraph: "Figure 6.1" should be "Figure 10.1."

Appendix H

Planning Element K.5.b: There is no "6.4.3" in the plan to use as a reference.

Planning Element M.4: Paragraph 10.3 is not the correct reference. 10.1 is the one to use.

Planning Element C.4.i: The reference should be "12.2.3."

Planning Element P.7: Per 0654 criterion P.7, Appendix A of the plan should be reference here.

Planning Element P.10 is only in the new version of 0654 and relates to updating telephone numbers at least quarterly.

Date December 1, 1980
To A. E. Desrosiers
From J. G. Myers
Subject Review of Claire Palmiter's Report on the Vermont Yankee
Emergency Report

As requested I reviewed each of Claire's general and specific comments on his evaluation of the Vermont Yankee Emergency Plan. My analysis of these comments are:

General Comments:

I agree there is little extraneous information in the plan and that additional information is needed in several areas some of which Claire ^{has} ~~was~~ noted.

Claire's comment regarding improved clarification and better definition of the Chemistry and Health Physics Supervisor's responsibilities and authorities is understandable. However, the authorities and responsibilities expressed in the Vermont Yankee plan are in line with three given for ^{those} other supervisory emergency personnel. I believe the information in the plan is sufficient for the purpose intended, i.e., general statements with specifics as needed to show that plant management is capable of responding promptly and effectively to an emergency. Additional clarifying information could be included in Emergency Procedures.

Sections 5, 6, 7, 9, 10, 11. I agree with the comments.

Section 8: I do not agree with comments on 8.2.1 page 41; 8.2.1 page 16, paragraph 2; 8.2.1, page 50; 8.2.1 page 51, and 8.2.2 page 52.

8.2.1, page 41: Plan section 8.2.1 does not satisfy evaluation criterion B.5. Plan table 8.3 shows only the on shift emergency organization and the immediate responsibilities. It does not indicate that number of people on the shift or the functional areas, major tasks or expertise as required in NUREG-0654, table B-1. If the number in parentheses in each block in plan table 8.3 is the number of personnel on shift the total is 7. This is 3 less than the 10 required by table B-1. In addition there is no comparable list showing augmenting personnel and reporting

times. The title of the Recovery Manager on page 42 and the title on table 8. are compatible. Table 8.2 simply added "Vice President".

8.2.1, page 46 paragraph 2: The major responsibility for plant location and accountability of personnel is a security function. Health Physics would be involved only in case of radiation or contamination control.

8.2.1, page 50: I don't see item 2, (top of page 50) as a problem. There has to be some sort of work scheduling and plan coordination. I also don't agree there is a conflict between the training coordinators authority to "assemble necessary resources to terminate the accident" and the responsibility of the Nuclear Services Division to provide "resources" to the Recovery Manager. The Training Supervisor is responsible for resources from what ~~was ever~~ source, the Nuclear Services Division for resources within the division.

8.2.1, page 51: Accountability is a security function. Health Physics would be involved only if there is probability of radiation exposure or contamination. The interaction is ~~not~~ ^{best} handled by procedure.

8.2.2, page 52: Subsection 8.2.2 does not satisfy the intent of criterion B.6 in that no block diagram has been supplied showing the interfaces as specified in criterion B.6.

Section 12:

12.1.8, page 85: I agree with Claire's comment except that the Vice President and Manager of Nuclear Operations should review actions recommend, by PORC based on their review of observers evaluation's. ^{ed}

In addition to reviewing Claire's comments against NUREG-0654. I randomly picked evaluation criteria from the NUREG-0654 Planning Standard, except for standards C, E, F and G, and checked the plan against the criteria for compliance.

Planning Standard A
Evaluation Criterion:

1a and 2a: Plan satisfies intent of the criteria.

3 Five letters of agreement are out dated.
However plan states all Letters of Agreement are under review and new ones will be submitted as soon as review is completed.

Planning Standard B
Evaluation Criterion:

- 1 Planning satisfies intent of the criterion
- 3 The line of succession for Emergency Coordinator (Director) is not clearly specified. The specific conditions for higher level assumption of the function are not identified.
- 6 A block diagram showing interfaces between the various emergency organizations is not in the plan.

Planning Standard D
Evaluation Criterion:

- 2 The plan fails to discuss each of the example initiating conditions for the four emergency types listed in Appendix 1, NUREG-0654.

Planning Standard H
Evaluation Criterion:

- 4 Activation and staffing of facilities and centers in a timely fashion is not addressed.
- 5a On site seismic and hydrologic instrumentation is not addressed.
- 5b Portable monitors and sampling instrumentation is not discussed.
- 10 Instruments only are discussed. There is no discussion about calibration, repair, replacement etc. of other equipment.

Planning Standard I
Evaluation Criterion

- 2 and 4 The plan satisfies the intent of the criteria.
- 10 The means for relating various measured parameters to key isotopes is not addressed.

Planning Standard J
Evaluation Criterion

- 1a, b, c The plan satisfies the intent of the criteria.
- 3 Radiological monitoring of evacuated onsite personnel is not discussed.

4 Personnel decontamination capability at offsite locations for evacuated personnel is not discussed.

10 Plan satisfies the intent of the criterion.

Planning Standard K
Evaluation Criterion

1 a thru g There is no discussion. Table 10.2 is not specific. Leaves to much to interpretation.

2 Plan satisfies the intent of the criterion.

6 a The plan satisfies the intent of the criterion.

6 b and c The plan does not discuss controls for onsite drinking water and food or criteria for return of areas and items to normal use. Table 10.2 is to general.

Planning Standard L
Evaluation Criterion

1 Plan satisfies the intent of the criterion.

2 The plan is not specific enough. Section 10.5.1 states in-plant medical facilities are available but fails to state what kind.

4 Plan satisfies the intent of the criterion.

Planning Standard M
Planning Criterion

1 The plan does not satisfactorily address the plans and procedures for re-entry and the means used to decide when to relax protective measures.

3 The plan does not discuss the means used to inform other organization of the intent to go to a recovery operation.

4 The plan does not discuss the methods used to periodically estimate total population exposure.

Planning Standard N
Evaluation Criterion

1 a Plan satisfies the intent of the criterion.

1 b The plan does not address the frequency of exercises or discuss off shift exercises.

3 and 4 Plan meets the intent of the criterion.

Planning Standard O
Evaluation Criterion

- 1 a Training for ambulance response organizations is not discussed.
- 2 Plan satisfies the intent of the criterion.
Note: The revised criterion specifies "classroom" training. The plan does not address this.
- 3 The plan does not specify multi-media Red Cross Training.
- 5 Plan satisfies the intent of the criterion.

Planning Standard P
Evaluation Criterion

1. Training of individuals responsible for the planning effort is not addressed.
- 3 Plan satisfies the intent of the criterion.
- 5 The methods used to forward plan revisions to response organizations and agencies is not adequately addressed.



Date December 8, 1980
To A. E. Desrosiers
From J. G. Myers
Subject Review of Claire Palmiter's Evaluation of Haddam Neck Plant
Emergency Plan

General Comment:

The plan is technically well written and reasonably comprehensive. Unfortunately the writers apparently have assumed that the readers of the plan will be as familiar with all phases of emergency planning and preparedness as they are. They also assume the readers will have ready access to plant procedures and have, therefore, in several instances briefly summarized the methods used then referred to a procedure(s). Section 6.2 "Assessment Actions" is a good example.

Several tables and figures pertinent to proper plan evaluation are missing. In these cases one can only assume the tables and figures to be added later will conform to the emergency plan scheme in NUREG-0654.

Specific Comments

Section 4

I agree with Claire's assessment except as noted.

1. I am confused by Claire's reference to the term "Emergency Coordinator". The term Director, Site Emergency Operations is used a time or two but the usage was clear to me.
2. Page 4.8, paragraph 4.2: The paragraph does not satisfy criterion H 5. H 5 is satisfied in section 7.3 and table 7-1.
3. Page 4.7 and table 4.2: The first paragraph on page 4.7 infers that the incident classes for the State plan are different than those in the licensee's plan. It would have been helpful if the licensee's plan had listed the state incident classes in the first paragraph of section 4.1. I interpret the comment on table 4-2 to mean that the state incident classes will be placed in the table by April 1, 1981.

Section 5: I agree with Claire's assessment except as noted.

1. Paragraph 5.2 and 5.3; tables 5-1 and 5-2: The final draft of NUREG-0654, B5 specifies augmentation of the on shift force shall be completed in a short time. Table B-1 indicates a

spread of 30 to 60 minutes. In addition, the letter of transmittal accompanying the plan expressed concern over the 30 minute augmentation time and indicated that additional discussion with the NRC is necessary for resolution.

2. Paragraph 5.3, Page 5.9: I see no conflict. The major duty of the Director of NUSCO Emergency Operations is to assist the Director, SEO with expertise and resources available in the NUSCO organization.
3. Paragraph 5.2.2, Page 5-5: I disagree. Onsite personnel accountability is not the responsibility of Manager, Radiological Consequence Assessment.
4. Paragraph 5.22, Page 5-5: I don't see a problem. The Manager of External Communications job is to coordinate the transmission of message between the near site EOF and other agencies. The fact that he provides information doesn't mean he generates it.
5. Paragraph 5.4.3.a: I believe a letter of agreement with the region NRC is reasonable. If such an instrument is executed there won't be any question about who is responsible for what. A letter of agreement with DOE is necessary for the same reason.
6. Paragraph 5.5, Page 5-14: I don't see anything wrong with the licensee and Federal and State agencies mutually agreeing to a single representative to the media. However, the individual should be selected ahead of time and not as a consequence of an accident.

Section 6: I agree with Claire's assessment except as noted.

1. Paragraph 6.4.2, Page 6-15: If Claire means that during the time dose assessment was being calculated, a radiation dose was received from a known release, then I agree the dose should be considered. If he means that a radiation dose was possibly received from a release of unknown quantity prior to dose assessment, I do not agree that it should be considered.
2. Paragraph 6.5.2, Page 6-22: I do not agree that an administration building floor plan is necessary to identify the location of decontamination facilities. A description of the decontamination facilities is in order, however.
3. Paragraph 6.5.3, Page 6-22: Claire asks if there are letters of agreement for ambulance and medical services. Appendix A states that letters of agreement will be in place by January 1, 1981.

4. Table 6-7, Page 6-30: I do not believe a map showing location of emergency kits is necessary. A short paragraph giving location information is all that is required. The subject of iodine blocking agent dosage is not the concern of the Emergency Plan. Only the fact that it is available and will be used as directed is necessary. It would be helpful to state "as directed by the company doctor."

Section 7: I agree with Claire's assessment except as noted.

1. Paragraph 7.2, Page 7.3: The licensee should state that the communications systems are manned 24 hours per day.
2. Paragraph 7.4, Page 7.5: I disagree that the licensee needs to state quantities of equipment stored at onsite or offsite locations. Appendix E lists by item the emergency equipment stored at various emergency centers, e.g. control room, auxiliary building, etc. This is sufficient. The quantity of any item stored is an in-house matter and outside agencies should not second guess them.

Section 8: I agree with Claire's assessment.

Section 9: I agree with Claire's assessment except as noted. Section 9 does not satisfy evaluation Criterion M4. No reference is made to periodic estimation of total population exposure. Appendix H references Criterion M4 to Section 6.23j. There is no such paragraph. Section 6.2.3i "Calculation of Population Exposure" attempts to define the method for estimating population exposure. The Section appears to be incomplete, i.e. something has been left out. In addition, no statement is made regarding estimation frequency.

Addendices: I agree with Claire's assessment except as noted.
Appendix A: Agreement letters presently in Appendix A are current. Additional letters are required to comply with evaluation criteria A3.

Appendix C: Evacuation times are shown in Table C-1.

Appendix H: Evaluation Criterion J11 is not referenced because it is not applicable to the licensee.

The emergency plan was evaluated against randomly picked evaluation criterion from twelve of the sixteen planning standards.

A. Assignment of Responsibility

Evaluation Criterion 1b: The plan satisfies the criterion.

Evaluation Criterion 1c: The plan fails to satisfy the criterion. The block diagram illustrating organizational interrelationships (Fig. 6.1) is not in the plan.

Evaluation Criterion 4: The plan satisfies the criterion.

B. Onsite Emergency Organization

Evaluation Criterion 2: The plan satisfies the criterion.

Evaluation Criterion 4: The plan partially satisfies the criterion. There is no specific identification of responsibilities that may not be delegated.

Evaluation Criterion 8a through d: The plan satisfies the criterion. Figure 6.1 "Interfaces Between Functional Emergency Organization Centers" will be provided by January 1, 1981.

D. Emergency Classifications

Evaluation Criterion 2: The plan partially satisfies the criterion. The example initiating conditions listed for each emergency class are not totally addressed.

H. Emergency Facilities and Equipment

Evaluation Criterion 2: The plan fails to satisfy the criterion. Section 7.1.2 describes the near site Emergency Operations Facility (EOF) but fails to give its location. It is not clear if the EOF is established or if not when it will be. Figure 6-3 showing a diagram of the nearsite EOF will not be in the plan until January 1, 1981.

Evaluation Criterion 5a through e: The plan satisfies the criterion.

Evaluation Criterion 8: The plan satisfies the criterion.

Evaluation Criterion 12: The plan satisfies the criterion.

I. Accident Assessment

Evaluation Criterion 3a and b: The plan satisfies the criterion. The material in the plan is a brief summary of material contained in the plant emergency procedures. Consideration should be given to expanding the material in the emergency plan to make it more comprehensive.

Evaluation Criterion 6: The plan satisfies the criterion.

J. Protective Response

Criterion 1a through d: The plan partially satisfies the criterion. The plan is quite specific on the means for warning and advising people inside the protected area (i.e. employees, visitors, construction/contractor personnel) but

Criterion 4: The plan satisfies the criterion.

Criterion 7: The plan satisfies the criterion.

Criterion 10a through c: The plan partially satisfies the criterion. There is no map showing location of relocation and shelter areas and hospital and medical facilities. Appendix C states this information is contained in Section 402, Annex J of the State plan.

K. Radiological Exposure Control

Criterion 1a through g: The plan satisfies the criterion.

Criterion 3a and b: The plan satisfies the criterion.

Criterion 7: The plan partially satisfies the criterion. Section 6.5.2 discusses decontamination of relocated onsite personnel but fails to address the capability to provide extra clothing and decontaminants suitable for skin decontamination; particularly skin contaminated with radioiodine.

L. Medical and Public Health Support

Criterion 2: The plan satisfies the criterion.

Criterion 4: The plan satisfies the criterion.

M. Recovery and Reentry Planning

Criterion 1: The plan partially satisfies the criterion. The means for determining when to relax protective measures are not specified in the plan.

Criterion 3: The plan satisfies the criterion.

N. Exercises and Drills

Criterion 1a and b: The final draft of NUREG 0654 was issued after plan revision 8 was issued. The plan satisfies Criterion 1a as originally written. The plan satisfies Criterion 1b.

Criterion 3a through f: The plan satisfies the criterion.

Criterion 5: The plan satisfies the criterion.

O. Radiological Emergency Response Training

Criterion 2: The plan partially satisfies the criterion. The plan does not indicate if drills will allow individual participants to demonstrate their ability or if erroneous performance will be corrected on-the-spot by the instructor.

Criterion 4a through i: The plan partially satisfies the criterion. Routine periodic training of repair and damage control teams and police and medical response agency personnel is not specifically stated.

P. Responsibility for the Training Effort

Criterion 1: The plan satisfies the criterion.

Criterion 3: The plan satisfies the criterion.

Criterion 5: The plan satisfies the criterion.

Criterion 9: The plan satisfies the criterion.

CLAIRE C. PALMITER
714 University Blvd. West
Silver Spring, Maryland 20901

November 30, 1980

Mr. A. E. Desrosiers
Radiation Standards and Engineering
Battelle Pacific Northwest Laboratories
Battelle Blvd.
Richland, Washington 99352

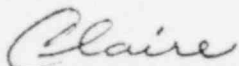
Dear Art,

Enclosed are my comments on the Haddam Neck Plant Site Emergency Plan.

The plan appears to be one of the best that I have reviewed. However, as I note in my comments there are many references to licensee procedures, and I am unable to thoroughly review, for example, the dose assessment methodology.

I have taken considerable time to indicate where I believe the plan meets the various criteria of NUREG 0654, as well as where the plan does not meet the criteria. Is this an acceptable method to follow?

Sincerely yours,



Claire C. Palmiter

Enclosure

Claire C. Palmiter

November 30, 1980

General Comments
on the Haddam Neck Plant Site
Emergency Plan

The plan is well prepared, perhaps in more detail than really necessary. In the present version it is single-spaced typed and this may be a problem if one needed to refer to a particular section in a short period of time, and in time of an emergency.

With reference to page 6-4, paragraph 6.2.3, the dose assessment methods are "briefly summarized here," but are "detailed" in the emergency procedures. My question is, who is going to review these emergency procedures; will it be someone at Battelle, me, or someone at NRC?

As another general comment, sections 1, 2, and 3 are all really introduction and could be combined in the next version, if so desired.

There are several tables and figures that are not at present in the plan. It states that these will be available by January 1, 1981. Even though the plan in its present state is an acceptable document, these vacant tables and figures must be reviewed before a final stamp of approval can be placed on the overall plan.

Claire C. Palmiter

November 30, 1980

Specific Comments
on the Haddam Neck Plant Site
Emergency Plan

Section 1

Page 1-4, under paragraph "plume exposure pathway" the word "subversion" should be "submersion."

Section 4

Paragraph 4.1 meets the NUREG 0654 criteria E.1, E.2, and H.4. However, Appendix G must be completed before final acceptance can be approved. It is noted that Appendix G will be completed before January 1, 1981.

Although the Emergency Coordinator is mentioned several times in Section 4, it is not clear whether the Emergency Coordinator or someone else is approving the various actions that are being executed.

Page 4-8, paragraph 4.2. This paragraph meets criteria D.1, D.2, H.5, and it appears to meet criterion I.1. However, I would appreciate it very much if someone with more reactor experience than I could review these possible accidents, initiating events, and emergency action levels.

Page 4-17, Table 4-2. It is noted that "To be provided prior to implementation period." It would be advisable to review the state of Connecticut Incident Classification. I'm curious if this table is in draft form in the state offices. I'm also curious why the licensee made this statement on a blank table.

Section 5

Page 5-1, paragraph 5.0. This paragraph meets criterion A.1.b.

Paragraph 5.1. Table 5-1 is not yet available.

Paragraph 5.2, 5.3, Table 5-1 and 5-2 do not fully meet the staffing requirements for the time schedules in criteria B.5, or B.8, since Table 5-1 is not yet available.

In paragraph 5.2, third line, the "Station management" is designated. It is vague who is the individual who will provide the staffing.

Also in this paragraph it is noted that additions to the staff will be made within sixty minutes. Criteria B.5 indicates a thirty minute time limit.

Paragraph 5.2.1. This meets criteria B.2 and B.3. However it does not, nor does paragraph 5.2.2.a, fully meet criterion B.4 which states "each licensee shall establish the functional responsibilities assigned to the Emergency Coordinator and shall clearly specify which responsibilities may not be delegated to other elements of the emergency organization."

Page 5-2, paragraph 5.2.1 notes that "the Director of SEO will take charge and supervise activities of the site emergency organization." Paragraph 5.3, page 5-9 notes also that the "Director of NUSCO Emergency Operations will be located in the NUSCO Operations Center, and carry out certain major responsibilities. Unless there is a clear line of authority which is understood by both the Director of the SEO on-site, and the Director of the NUSCO Emergency

Center, I can visualize a set of circumstances where there may be confusion between these groups on who is taking what action.

Page 5-5, paragraph 5.2.2. Under the "Responsibilities of the Manager of the Radiological Consequence Assessment," I would add another responsibility and that would be "On-Site Personnel Accountability.

Also on page 5-5 under the "Responsibilities of the Manager of External Communications" it is noted that this individual may provide oral and technical reports to the NRC, State, local authorities, and other appropriate governmental agencies. My question is, does this person have the authority to prepare these reports himself, or is the Director of the SEO the responsible person who approves these reports?

Page 5-8, paragraph 5.3. This paragraph appears to meet criterion C.2.b.

Page 5-12, paragraph 5.4. This paragraph meets criteria A.1.a, B.10 and C.4. However Appendix A needs to be completed before approval may be given.

Page 5-13, paragraph 5.4.2. This paragraph meets criterion A.3 However, the comments on Appendix A apply here also.

Paragraph 5.4.3 generally meet criteria C.1.a, .b, and .c. However more information is needed to fully meet criterion C.1.c.

It is noted that in paragraph 5.4.3.a, that a letter of agreement is not necessary in that the U.S. NRC is bound by federal regulations to provide assistance. I have noticed in other plans that there have been letters of agreement on this subject. Is it true that a letter of agreement is not necessary? Under subparagraph b., is a letter

of agreement needed here between the licensee and the Department of Energy?

Page 5-14, paragraph 5.5, it is noted here, and also on page 7-3, paragraph 7.1.6 that "a Coordinator of the Media Center is jointly agreed to by the State, local authorities and NU and will have the responsibilities to moderate all press conferences at the Media Center." Although this is a democratic procedure to appoint the Coordinator in this fashion, in a time of crisis it may be difficult to follow this procedure for various reasons. Isn't it the responsibility of the licensee to serve in this position as "Coordinator" without any doubt?

Page 5-16, Table 5-1 is not in the plan.

Section 6

Paragraph 6.0 mentions that the details of the various emergency measures are contained in the station emergency procedures. Again, I raise the question, are these various emergency procedures going to be reviewed and by whom.

Page 6-1, paragraph 6.1. The information mentioned in this paragraph partially meets criteria A. 1.c, B.6, and E.3. However, criteria E.4.a through .n are not covered, and Appendix H. does cover these criteria. I'm curious why.

Page 6-2, paragraph 6.1. It is noted that "the Emergency procedures provide for a predetermined message format for notification of off-site agencies." This is another example of the procedures containing information which should be reviewed during the overall plan review. It is also noted that an Incident Report

Form is to be in Appendix G, but this is not yet available (will be available January 1, 1981). The Incident Report Form is stated to also provide for message verification as required by NUREG 0654. This message verification procedure should be reviewed when available.

Page 6-4, paragraph 6.2.3. The information presented in the paragraph on "Methods of Assessment" appear to be reasonable; however again the emergency procedures must be reviewed to confirm the dose estimate methodology. These paragraphs generally meet criteria I.2, I.3, and I.5 through I.10.

Paragraph 6.2.3.a notes that interim high-range radiation monitors have been installed at each potential effluent point to determine effluent release rates should the existing stack monitors go off scale. Where are these interim monitors placed? Can there be a diagram to show these? Why are they called "interim" high-range radiation monitors?

Also in this paragraph, it is noted that "arrangements have been made to secure such information from a local weather service." How can one verify this? Is there a letter of agreement on this? If so, it is not listed in Appendix A.

Page 6-5, paragraph 6.2.3.b. This paragraph notes "the methodology used to determine these values is based on the use of conservative meteorology and operating data. The supporting philosophy, calculations, and data is available for review with the NUSCO Radiological Assessment Branch." I believe that this methodology should be reviewed.

Although paragraph 6.2.3.c meets criteria I.4, the dose estimates and projection methodology needs to be reviewed.

Page 6-9, paragraph 6.2.3.e. This paragraph and paragraph 7.1.2 meet criterion H.12. The paragraph notes also that samples of soil, vegetation, etc. are taken for laboratory analysis as coordinated by the NUSCO Manager of Radiological Consequence Assessment. Where or at what site are these laboratory analyses conducted; is it at Millstone Nuclear Power Station, which is some 40 miles road distance away?

Page 6-12, paragraph 6.4. These paragraphs generally meet criteria J.1-7, J.10m, and K.1 through K.7.

Page 6-13, paragraph 6.4.1.d. It notes that the details of the responsibilities and functions for station personnel during an evacuation of the protected area are included in the emergency procedures. Again although this is properly referenced, someone should still review the procedures on this particular point.

The paragraph notes that the North Parking Lot is the assembly area for all other personnel in the protected area of the site. Is there an alternate site in case the North Parking Lot is contaminated or otherwise unavailable?

Also the paragraph points out that if necessary, the Manager of On-site Resources will arrange transportation to the Millstone Nuclear Power Station for control and decontamination of personnel. It is noted earlier that Millstone is 40 miles away; is there no other site available that is closer?

Page 6-14, paragraph 6.4.1.e. It is noted that Security may conduct any required search of the outlying areas beyond the protected area to insure that there are no persons in these areas. Does Security have any health physics training or a person with them who does have such experience? It would appear advisable to have

such experience since Security may run into some contaminated areas in their search activities.

Paragraph 6.4.1.f notes that personnel within the protected area will be monitored for contamination prior to leaving the owner controlled area only if it is suspected that they are contaminated. "Suspicion" is not a very good criterion to determine whether monitoring will take place, especially when there has been a potential accident. It would appear to me that it would be advisable for the licensee to have a program to monitor all personnel who may leave the owner controlled area during an accident.

The paragraph notes that if on-site areas are not useable because of inclement weather or continuing releases, the relocation center identified in the state plan will be used for decontamination monitoring. Where is this center or other alternate centers, and do they have decontamination facilities, other than just monitoring?

The paragraph also notes that any person known or suspected to have ingested radioactivity will be whole body counted as soon as conditions permit. Where is the whole body counter located?

Page 6-15, paragraph 6.4.2. This paragraph notes that the "PAG's do not include the dose that has unavoidably occurred prior to the assessment." As I noted in my comments on the Maine Yankee Emergency Plan, I cannot agree with this statement. I reference the definition of assessment actions. If the assessment is late, or an error is made in the assessment, then prior doses may be very important. Therefore, one may not just exclude the doses that may have occurred prior to an assessment action period.

Page 6-17, paragraph 6.4.3. The information in this paragraph meets the intent of criterion E.6; however more information would be helpful. With reference to criterion E.7, in the licensee's Appendix H, he notes that this criterion is not applicable to his plan. Although I cannot agree with this statement, I note that the licensee did not have the newer version of 6654 where the requirement was added. Therefore the licensee should include this in the next version of his plan.

This paragraph also notes that detailed procedures on the use of protective equipment and supplies are incorporated in health physics procedures and emergency procedures. Again, I would like to have someone review these procedures. The paragraph also states that the quantity of radioprotective drugs used by site emergency workers is adequate to provide sufficient dosage for the emergency workers. Also, an NU policy for the use of these drugs has been implemented. Where is this policy? By whom was the policy approved?

Page 6-20, paragraph 6.5. This paragraph generally meets the criteria of L.1-4.

Page 6-22, paragraph 6.5.2. It is noted that the relocation center identified in the state plan will be used for decontamination/monitoring. As questioned earlier, where is this relocation center?

The paragraph also notes that the administration building has the capability to decontaminate on-site personnel. There is no diagram or floor plan of the administration building in the emergency plan itself.

Paragraph 6.5.3 on "Medical Transportation." Is there a written agreement with the ambulance crews about providing this

service and is there an agreement that the ambulance crews will be able to handle contamination cases?

Page 6-30, Table 6-7, the list of protective supplies appears good, but there is no comment as to the quantity of the various pieces of equipment. Also, is there a map or a diagram showing locations for this equipment? "Various areas of the plant" is not a very good statement to indicate location of these items. Again item 4 of Table 6-7 indicates radioprotective drugs for thyroid blocking agent; there is no pharmaceutical dose for these drugs and the question remains who established the dose of these drugs.

Page 6-33, Figure 6-1, the Table on Interfaces Between Functional Emergency Organization Centers is blank. This information must be received before the plan can be approved.

Section 7

Page 7-1, paragraph 7.1. These paragraphs meet criteria C.2.a.

Page 7-2, paragraph 7.1.2. Reference to this paragraph is not mentioned in Appendix H, but should be. Also Figure 3 is not in Appendix F. However, this information with the addition of Figure 3 would meet criterion H.1.

Paragraph 7.1.3. This information plus that in paragraph 7.1.5, meets the intent of criterion H.1.

Page 7-3, paragraph 7.1.5. This paragraph is referenced in Appendix H in the plan as meeting or being referenced for criterion H.9. However it does not cover the items mentioned in criterion H.9.

Paragraph 7.1.6. The plan and also Appendix H does not reference criteria G.3.b or G.4.c in the discussion of the Media Center.

Paragraph 7.2. With reference to criteria F.1.a through .f, Figure 7-1 is not yet available. However, the text of paragraph 7.2 appears reasonable.

Page 7-4, paragraph 7.3, "Assessment Facilities." The information appears to meet criteria C.3 and C.4.

Page 7-5, paragraph 7.4. The paragraph notes the portable radiation monitors, respiratory equipment, etc., that is maintained in the Control Room. However, there is no notation of the quantities of the various types of equipment.

Paragraph 7.7 appears to meet the criterion H.3.

Page 7-13, Figure 7-1. The figure is not yet available.

Section 8.0

Page 8-1, paragraph 8.0. Section 8 generally meets criteria N, O, and P. However the licensee used an older version of 0654 and some of these schedules have been changed. For example, criterion O.4.j is not covered nor is criterion P.10.

Page 8-2, paragraph 8.1.1f. The paragraph is referenced as meeting criterion G.5 in Appendix H. However, "news media" personnel are not mentioned in this paragraph of the plan.

Page 8-3, paragraph 8.1.2. With reference to criteria F.2 and .3 no mention is made of fixed and mobile medical support facilities and communications. Also, criterion F.3 is not referenced in Appendix H of this plan.

Page 8-7, paragraph 8.1.3.d. With reference to criterion N.2.e.(2),

this paragraph "Radiological Monitoring and Health Physics Drills, does not specifically mention "Analysis of in-plant liquid samples with actual elevated radiation levels (including use of the post-accident sampling system) shall be included in Health Physics Drills by the licensees annually."

Page 8-8, paragraph 8.3. This paragraph meets criteria H.7 and H.10.

The paragraph also notes that "All supplies and equipment will be inventoried and calibrated by the schedules specified within the Station administrative procedures." Where are these procedures and who at Battelle or NRC will look at these procedures?

Page 8-9, paragraph 8.4. The information presented here partially meets criteria G.1 and G.2; however, it does not discuss the provision of "a coordinated periodic annual program for dissemination of information to the public."

Section 9

Page 9.1, paragraph 9.0. Although this section is rather brief, it appears to meet the intent of criteria M.1 through M.4.

Appendix A

The letters of agreement must be updated; not all are available at the present time.

Appendix A also discusses in brief the State Plan, the Medical Director of Connecticut Yankee Atomic Power Companies' activities and the American Nuclear Insurers' activities. It would appear advisable that before the final review and approval of the emergency plan, these plans and responsibilities should also be reviewed.

Appendix B

It is noted that this appendix is "Reserved." What may go into Appendix B, and will such information have to be reviewed before the plan is approved?

Appendix C

The information presented here generally meets criteria J.8 and J.10. However, Appendix C is quite brief, and references reports on evacuation times, etc, and the state plan for relocation areas, shelter areas, hospitals and medical facilities. Since I do not have the referenced documents, I am unable to comment on the adequacy of this appendix in toto.

Appendix E

The appendix, in part, meets criterion H.11; however the quantity and the number of each item is not listed in the appendix. This is true for Table E-1 through E-5.

Appendix F

For ~~F~~ figures F-1, F-2, and F-4, there is no scale of size of rooms so it is difficult to evaluate whether these areas would have sufficient space and manpower requirements to adequately carry out their functions.

Figure F-3 on the "Haddam Neck Near-site Emergency Operations Facility" is blank, and indicates that the information will be available by January 1, 1981.

Appendix G

The Incident Report Form is blank and it is noted that it will be supplied by January 1, 1981.

Appendix H

Under criterion A.4, paragraph 5.2.2.g is referenced. However, it is not needed here.

Under criterion B.9, Table 5-4 is listed as a reference. This should be Table 5-5.

Criterion E.7. The licensee lists this as "N/A"; however the new version of 0654 requires the licensee to cover this item.

After F.2, there should be listed an F.3. It needs to be referenced in the plan since the new version of 0654 indicates that the licensee should cover this.

Criteria G.3.b. The licensee has no reference for this particular item. Why?

After criterion G.4.b, there should be a new G.4.c since the new version of 0654 requires the licensee to cover this item.

H.5. The references should read 4.2, 7.3, Table 7-1.

Under item I.3.a. There needs to be a referenced paragraph.

J.6, Table 6-5 is listed as a reference. This should be Table 6-7.

J.11. I am curious why there is no reference to this particular item in the plan.

N.2. The schedules need to be revised in the Exercise and Drills section and N.2.e should have a (1) before Health Physics and a new item e(2) added, and appropriately referenced.

O.4.j is a new section in the new version 0654 and needs to be referenced here.

After P.9 there should be a new item in the references as well as the plan, "P.10" which is a listing and updating of phone numbers. Again this is only in the new version of 0654.

EMERGENCY PREPAREDNESS PROGRAM REPORT

SITE: Maine Yankee

DATE OF REPORT: 11/19/80 REVISION/DRAFT NO: 1

AUTHOR: Michael K. Lindell

HOW SENT: 1 copy 1st class mail DATE: 11/19/80
to Clair Palmifer
1 copy in Pouch Mail to
Art Desrosiers

CONTENTS: Planning Standards C, E, F, G

PLANNING STANDARD G

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency, including the physical location or locations, are established in advance, and procedures for coordinated dissemination of information to the public are established.

SYNOPSIS: The Maine Yankee plan designates points of contact and provides space for the media at the ECC and describes an annual briefing for the news media.

EVALUATION: The licensee's plan does not satisfy Planning Standard G.

CRITERIA ANALYSES

1. Criteria 1 and 2 are not satisfied. The plan fails to describe an annual program for the dissemination of emergency information to the population of the EPZ (G.1,2).
2. Criterion 3 is partially satisfied. The plan does designate points of contact for the media. However, the Yankee Emergency Mutual Assistance Plan authorizes the Westboro Manager of Operations to "disseminate updated information to...news media (p.3)." There is no clear justification for establishing media contact at the site ECC, at CMP (see p.5.9 and Table 5-3) and at Westboro. YNSD should refer all media requests to one of the other two locations (G.3.a). *A single coordinated release point is the preferable option.*
3. Criterion 4 is partially satisfied. Figure 5-4 appears to designate the Public Affairs Specialist as the Spokesperson, although this is ambiguous due to an apparently conflicting assignment of public information responsibility to corporate headquarters (see p.5.8) (G.4.a). Acknowledgement of a need for timely exchange of information is more clearly acknowledged for the recovery organization (see p.9.3) than for the emergency organization (G.4.b). There is no provision for coordinated arrangements for rumor control (G.4.c).
4. Criterion 5 is partially satisfied. Provision for an annual briefing of the news media is acknowledged on page 8.3, although the description is sketchy and there is little indication that this program is (or will be) coordinated with the public information program (G.5).

PLANNING STANDARD F

Provisions exist for prompt communications among response organizations to emergency personnel and to the public.

SYNOPSIS: The Maine Yankee plan documents the capability for 24 hour/day notification of offsite authorities and provides for communications between the control room and onsite and offsite emergency facilities.

EVALUATION: The licensee's plan does not satisfy Planning Standard F.

CRITERIA ANALYSES:

1. Criterion 1 is partially satisfied. The plan does not specify organizational titles and alternates for all communication links. Such information could be summarized in section 7.1, Emergency Facilities or in Fig. 7-7 or 7-8 (F.1). There is no provision for direct communication with Sagadahoc County (a contiguous county) although p.6.10 documents the existence of a hot line connecting the state and county EOCs with twenty local communities (F.1.b). There is no statement of responsibility for communicating with DOE radiological assessment teams, the Coast Guard or the FAA (F.1.c). Table 7-1 fails to document communications links with licensee monitoring teams (F.1.d).
2. Criterion 2 is not satisfied. There is no clear documentation of a coordinated communication link for fixed and mobile medical support facilities (F.2).
3. Criterion 3 is not satisfied. Section 8.1.3, Drills and Exercises, does not provide for the periodic (preferably monthly) testing of the emergency communication system (F.3).

PLANNING STANDARD E

(continued)

4. Criterion 7 is not satisfied. There is no documentation of prepared messages consistent with each ^{accident} ~~EAB~~ that have been prepared for release to local media, such as radio or TV stations (E.7).

PLANNING STANDARD E

Procedures have been established for notification, by the licensee, of state and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume-exposure pathway Emergency Planning Zone have been established.

SYNOPSIS: The Maine Yankee plan establishes procedures for notification of response organizations, with verification of messages, and mobilization of emergency response personnel and describes a system for notifying and providing instructions to the population of the plume exposure zone.

EVALUATION: The licensee's plan does not satisfy Planning Standard E.

CRITERIA ANALYSIS

1. Criteria 1 and 2 are satisfied. Criteria 5 does not apply to the licensee.
2. Criteria 3 and 4 are not satisfied. The plan notes on p.6.7 that the format of notification messages to the State Police will be preestablished. There ought to be a standardized notification form devised that meets the requirements of NUREG-0654. Copies of the form should be available at the plant (Control Room and ECC), at the State Police headquarters, at the Lincoln County EOC and appended to the plan (E.3,4).
3. Criterion 6 is not satisfied. The plan states that notification of state and local government agencies should be completed within 30 minutes but fails to designate which specific organization is responsible for notifying the affected population. Specifically, p.6.9, line 3 does not indicate which agency activates the siren system. The figure labelled "Concept of Operations" indicates that it is local government. However, figures 6-3 and 6-4 imply that it is the State Police. The description of the system for the 5-10 mile zone is not sufficiently specific to allow a reviewer to determine if the design objective (90% notification in 15 minutes) is likely to be met (E.6). Moreover, the plan fails to provide a description of an annual survey of the local population to assess their awareness of the public notification system (Appendix 3).

PLANNING STANDARD C

Arrangements for requesting and effectively using assistance resources have been made, that arrangements to accomodate state and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

SYNOPSIS: The Maine Yankee plan identifies a person authorized to request a DOE radiological monitoring team, provides for a liaison from the Maine Division of Health Engineering at the ECC and identifies augmenting organizations that can provide emergency assistance.

EVALUATION: The licensee's plan partially satisfies Planning Standard C.

CRITERIA ANALYSIS:

1. Criterion 3 is satisfied. Criterion 2a does not apply to the licensee.
2. Criterion 1 is not satisfied. There is only a brief reference to federal assistance contained on page 5.10, and a similarly short statement in the Yankee Emergency Mutual Assistance Plan (p.3) that notification of ERDA (sic) can be made by the Manager of Operations at the ECC at the Westboro facility. Initiation of a request for a DOE team by the Westboro center seems ill advised since the team will be reporting to the plant and coordinating with the Division of Health Engineering and the plant staff at the ECC (C.1.a). There is no documentation of specific Federal resources expected (C.1.b) or identification of local resources required to support a Federal response (including reporting location) (C.1.c).
3. Criterion 2 is partially satisfied. DHE will dispatch a liaison (C.2.a). There is no mention of any prior plan to dispatch a licensee representative to either the Lincoln County or State EOC (C.2.b).
4. Criterion 4 is partially satisfied. Requests for law enforcement support are contemplated (see p. 6.4 and Figure 5 , but only by a letter of agreement with the State Police and not with local law enforcement agencies. More generally, most letters of agreement are not current. No letters of agreement from Combustion Engineering or Stone & Webster (referred to on p.5.8) (C.4) are included.

EMERGENCY PREPAREDNESS PROGRAM REPORT

SITE: Maine Yankee

DATE OF REPORT: 11/19/80 REVISION/DRAFT NO: 1

AUTHOR: Michael K. Lindell

HOW SENT: 1 copy 1st class mail DATE: 11/19/80
to Clair Palmiter
1 copy in Pouch Mail to
Art Desrosiers...

CONTENTS: Planning Standards C, E, F, G

Date December 4, 1980
To A. E. Desrosiers
From J. G. Myers *JGMY*
Subject Review of Claire Palmiter's evaluation of the Maine Yankee Emergency Plan dated July 31, 1980 and Evaluation of the plan against randomly selected criterion from Part II of NUREG-0654.

I have reviewed Claire Palmiter's general and each of his specific comments on his evaluation of the Maine Yankee Emergency Plan.

General Comments

I agree with Claire. This plan is really not worth the time it takes to evaluate it. The two principal reasons are: 1) the plan is poorly written. It is vague and fails to acceptably address the sixteen planning standards in part II of NUREG-0654. 2) The plan has been edited at some point between Palmiter's evaluation and receipt of our copy of the plan. The editing has been carelessly done without regard to content or continuity of thought. This has destroyed a great deal of what little substance was in the plan.

It appears the plan was put together to satisfy Maine Yankee management, i.e., they wrote to themselves; with no attempt to satisfy the requirements of NUREG-0654; and with a minimum expenditure of thought and effort. In short plan reads like it was hastily assembled to comply with NRC deadline.

Specific Comments

Claire made about 28 specific comments on the emergency plan. After reviewing these comments against appropriate sections of the plan, I am in agreement with his observations. We may differ in the manner of presentation but the thrust of his comments is quite valid.

I have reviewed the Maine Yankee Emergency Plan against randomly picked evaluation criterion from each of the planning standards except for standards C, E, F and G. My evaluation is:

A. Assignment of Responsibility

Criterion 1a.: The plan satisfies the criterion by means of table 1-1 "Maine Yankee Emergency Planning Organizations." However, no reference is made to this table in the plan text.

Criterion 1b & c The plan does not satisfy the criterion. Operational roles are discussed in general terms only for private sector organizations, i.e., Maine Yankee Nuclear Support Division, Central Maine Power Company and Nuclear Services Division - Yankee Atomic Electric Co. Passing reference is given to government response agencies in Section 5.4, page 5.10

Criterion 3-: The plan does not satisfy Criterion. Appendix 1 contains written agreements but all are outdated.

B. Onsite Emergency Organizations

Criterion 2: The plan satisfies the criterion. Section 5.1 page 5.2 states that the plant Shift Superintendent has authority to act for the Plant Manager until relieved by a senior delegated alternate.

Criterion 4: The plan partially satisfies the criterion. Section 5.2 pages 5.5 and 5.6 lists the Emergency Coordinator duties and responsibilities. The responsibility to recommend protective actions to offsite authorities, a responsibility that cannot be delegated, has been marked out.

Criterion 5: The plan does not satisfy the criterion. Tables 5-1 shows the basic shift emergency organization and table 5-3 shows assignment responsibilities for the augmented emergency organization. It is impossible to determine if these organizations meet the staffing requirements and augmenting times depicted in table B-1, NUREG-0654. The positions or titles of individuals assigned major tasks are not addressed.

Criterion 8: The plan does not satisfy the criterion. Corporate management, administration and technical support are identified in Section 5.3 page 5.8 but are not discussed in sufficient detail to satisfy criteria 8a through 8d.

D. Emergency Classification Scheme

Criterion 1: The plan partially satisfies the criterion. Figures 6-1 through 6-5 depict the onsite and offsite "sequence of activation" for the unusual event, alert, site and general emergency categories. The figures indicate the sequence for notification and personnel action. There is no discussion about the types of licensee and response organization actions as shown in Appendix 1, NUREG-0654.

Criterion 2: The plan partially satisfies the criterion. Table 4-1 lists example initiating conditions for the four types of emergencies. The example initiating conditions in Appendix 1, NUREG-0654 are not addressed in every case. The Maine Yankee FSAR postulated accidents are not addressed.

H. Emergency Facilities and Equipment

Criterion 2: The plan satisfies the criterion to the extent that an Emergency Coordination Center (Emergency Operations Facility) has been established in the plant information building. Figure 7-2 "Maine Yankee Site Plan" indicates the information building is inside the security area but outside the protected area. The distance from the reactor is not given. Table 7-3 shows the information building floor plan. If the location of the ECC is correctly identified on the floor plan the location is inadequate as for as size is concerned. An alternate ECC has been established in Wiscasset Village at the Lincoln County Emergency Operation Center about 3.5 miles NNE from the site.

Criterion 4: The plan does not satisfy the criterion. The timely activation of emergency facilities is not addressed.

Criterion 8: The plan partially satisfies the criterion. Section 7.3 page 7.6 briefly describes onsite meteorological instrumentation. No mention is made of an onsite backup facility. Procedures used to obtain current data from other sources are not addressed.

Criterion 9: The plan partially satisfies the criterion. An Operations Support Center (OSC) has been established in the plant administration building. No mention is made of the capability to provide adequate shielding, ventilation and inventory of supplies and equipment.

I. Accident Assessment

Criterion 1: The plan does not satisfy the criterion. The plan does not identify in a concise comprehensive manner the plant systems and parameter values characteristic of a spectrum of off-normal conditions. No statement is made concerning emergency procedures specifying kinds of instruments used and their capabilities or if parameter values and corresponding emergency class are contained in emergency procedures.

Criterion 5: The plan does not satisfy the criterion. The licensee's capability to acquire and evaluate meteorological information and to provide evaluation results to responsible onsite and offsite emergency centers is not addressed.

Criterion 9: The plan does not satisfy the criterion. The capability to detect and measure radioiodine concentrations in air is not addressed.

Criterion 10: The plan does not satisfy the criterion. The means for relating various measured parameters to dose rates for key isotopes, table 3, page 15, part I, NUREG-0654 is not addressed. Estimation of integrated dose using nomographs is briefly discussed in Section 6.3.3, pages 6.12 and 6.13 but not in sufficient detail to be meaningful.

J. Protective Response

Criteria 1a & b: The plan satisfies the criteria. The plan addresses the means for notification and actions to be taken by onsite nonessential employees and visitors.

Criterion 1c: The plan does not satisfy the criterion. No mention is made for notification of and actions to be taken by contractor/construction personnel.

Criterion 3: The plan does not satisfy the criterion. No provision has been made for radiological monitoring of onsite evacuees.

Criterion 7: The plan does not satisfy the criterion. Section 6.5.4, page 6.19 states that offsite protective action recommendations will be included later. No date was given.

Criterion 10a: The plan does not satisfy the criterion. Figure 1, Appendix 2 is a map showing evacuation routes. Roads and highways are not identified and the map is of poor quality. Figures 7.9 and 7.10 show the location of preselected radiological sampling and monitoring points but no location designators have been included. There are no maps showing evacuation areas, relocation centers, shelter areas, etc.

Criterion 10b: The plan does not satisfy the criterion. There is no map(s) showing population distribution or a table similar to table J 1, NUREG-0654.

Criterion 10c: The plan partially satisfies the criterion. Section 6.2, pages 6.8, 6.9 and 6.10 outlines a conceptual design for a public emergency alerting systems consisting of fixed sirens, tone alerts and mobile sirens, and public address systems. Some of this is currently in place but it is unclear how much is installed and/or usable. By inference the system will be used for all types of emergencies. No completion estimates are given.

K. Radiological Exposure Control

Criterion 2: The plan does not satisfy the criterion. An onsite emergency radiation protection program is not addressed. Authorization for emergency workers for doses in excess of 10CFR20 limits has not been delegated.

Criteria 3a and b: The plan does not satisfy the criteria. No provisions have been made to provide 24 hour/day capability to determine the radiation dose received by emergency workers or for issuing dosimeters and maintaining dose records.

Criteria 6a, b and c: The plan does not satisfy the criteria. The plan fails to address contamination control measures for area

access, onsite portable water and food supplies and return of areas and items to normal use.

L. Medical and Public Health Support

Criterion 1: The plan partially satisfies the criterion. Section 6.6.4 page 6.23 plus outdated "Letters of agreement", Appendix 1 provides for primary and back-up medical treatment and hospital care. There is no discussion of the service organization's capabilities.

Criterion 4: The plan does not satisfy the criterion. Section 6.6.3, page 6.22 indicates that ambulance service will be provided. The name of the service organization "Wiscasset Ambulance Service" has been marked out.

M. Recovery and Reentry

Criterion 2: The plan partially satisfies the criterion. Authorities and responsibilities of key recovery personnel are discussed. The individuals involved are not identified by position or title. The recovery manager, for example, is a designated senior manager or executive of Maine Yankee or one of the utilities owners of Maine Yankee. There is no indication as to who makes the delegation. (Section 9.1 page 9.2)

Criterion 4: Plan does not satisfy the criterion. Section 9.4 page 9.4 states a method for periodic estimation of population exposure will be included later but fails to give a date.

N. Exercises and Drills

Criterion 1a: The plan does not satisfy the criterion. Simulation of an offsite radiological release requiring response by offsite authorities and the capability to test the basic elements in the emergency organization are not addressed.

Criteria 2a through e: The plan does not satisfy the criteria. None of the drills, i.e., communications, fire, medical, radiological, health physics, are addressed in any significant detail.

Criterion 3: The plan does not satisfy the criterion. The format of exercise scenarios expressed in criterion 3 are not addressed except that arrangements will be made to use "auditors" during exercises and drills.

O. Radiological Response Training

Criterion 1: The plan partially satisfies the criterion. Section 8.1.2, page 8.1 states that specialized training will be given on initial assignment of individuals to specific emergency duties and will be followed by annual refresher courses. The plan fails to identify these individuals by either position or title.

Criterion 2: The plan does not satisfy the criterion. A comprehensive training program including classroom instruction, practical drills and on the spot correction of problem areas is not addressed.

Criterion 4a through j: The plan does not satisfy the criteria. There is no discussion of a substantive nature, regarding a training program for company and response organization personnel. Section 8.1.2, pages 8.1, 8.2 and 8.3 offers only a brief insufficient outline of a training program.

P. Responsibility for the Planning Effort

Criterion 1: The plan does not satisfy the criterion. The training of individuals responsible for the planning effort is not addressed.

Criterion 3: The plan partially satisfies the criterion. Section 8.1.1, page 8.1 indicates there is an emergency plan coordinator but fails to provide his authorities and responsibilities.

Criterion 4: The plan satisfies the criterion. Section 8.2, page 8.4 states that plans and written agreements will be reviewed annually for updating.

Criterion 5: The plan partially satisfies the criterion. Section 8.2, page 8.4 states that the plan will be controlled to ensure changes are incorporated into outstanding copies. The plan does not state how revised portions of the plan will be distributed and what methods will be used to assure proper incorporation into the plan document.

CLAIRE C. PALMITER
714 University Blvd. West
Silver Spring, Maryland 20901

November 19, 1980

Mr. A. E. Desrosiers
Radiation Standards and Engineering
Battelle Pacific Northwest Laboratories
Battelle Blvd.
Richland, Washington 99352

Dear Art,

Enclosed are my comments on the Maine Yankee Atomic Power
Station Emergency Plan.

As you will note from my comments I do not believe the
present draft is an acceptable document. A great deal
of work must be done on the plan before it can be adequately
evaluated against the criteria in NUREG0654.

Sincerely yours,



Claire C. Palmiter

Enclosure

Claire C. Palmiter

November 18, 1980

General Comments on
the Maine Yankee Atomic Power Station
Emergency Plan

The plan is very vague and brief. Although there are sections within the draft which meet some of the criteria in NUREG 0654, my overall evaluation is that the plan needs to be completely re-drafted and the management of Maine Yankee instructed to prepare the plan following the outline in NUREG 0654.

Of the three plans, Yankee Rowe, Vermont Yankee, and Maine Yankee, the Maine Yankee is by far the worst. It is not evident to me that the drafters of the plan were very familiar with NUREG 0654. For example, there is no appendix as required in criterion P.7 so that it is very difficult to review and comment on the plan with reference to the criteria in 0654.

It is noted on page 1.1 of the Introduction of the plan that "Volumes I and II together comprise the complete Maine Yankee Emergency Plan." I have not seen Volume I which contains the state of Maine radiological Incident Plan. However, I have my doubts whether Volume I would have assisted me in the overall evaluation. Volume II which contains the Maine Yankee's plan is so disconnected that it does not appear that it would be worth my time to review Volume I. In summary, I believe that Maine Yankee management must be made aware of what has happened in the development of the Yankee Rowe and Vermont Yankee plans, and prepare a much better plan in the very near future.

Claire C. Palmiter

November 18, 1980

Specific Comments
on the Maine Yankee Atomic
Power Station Emergency Plan

Section 1

Page 1.1, last paragraph, it is noted that Volumes I and II together comprise the complete Maine Yankee Emergency Plan. I have not received Volume I and therefore, I cannot comment on its contents. However, I believe that even though I had obtained Volume I, it would not have changed my comments on this particular emergency plan. Table 1-2; when will the Emergency Plan Implementation Procedures be available?

Section 2

Page 2.3, paragraph 2.9; the last sentence of the definition of PAG's. The sentence indicates "The PAG's do not include the dose that may have occurred prior to the assessment." I cannot agree with this statement. I reference the definition of assessment actions on page 2.1. If the assessment is late, or an error is made in the assessment, then prior doses may be very important. Therefore, one may not just exclude the doses that may have occurred prior to the assessment action.

Section 5

Page 5.1; paragraph preceding paragraph 5.1 notes: "The President of the Maine Yankee Atomic Power Company may direct the overall responsibility for" With reference to pages 5.2, 5.5, 5.6, 6.2, 6.11, and Table 5-2, I find it very confusing as to

who is the Emergency Coordinator. For example, Table 5-2 is blank; however, it does have a note: "May be deleted from plan because of frequency of revision. If so, a commitment will be made in plan to keep a list in the training department, etc." This appears to indicate to me that there is confusion within the Maine Yankee organization on the development, preparation and drafting of emergency plans. More importantly, it appears to indicate that management is taking this matter lightly, even though they should be aware of the TMI experience.

Page 5.1, paragraph 5.1 (also page 5.2); the last two paragraphs indicate the on-duty Plant Shift Superintendent or another Emergency Coordinator will be designated to that position. However, I can find nowhere in the plan a discussion of these individuals. I reference criterion B.2 which indicates that the licensee shall designate an individual to be the Emergency Coordinator, and criterion B.3 which indicates that a definite line of succession should be prepared.

Page 5.5, paragraph 5.2. It is noted in the first sentence on page 5.5 that "The first qualified individual to arrive at the emergency coordination center will assume the duties of Emergency Coordinator relieving the Plant Shift Superintendent." I am confused on whether the Plant Shift Superintendent is not a qualified individual, and I cannot find within the plan who this "first qualified individual" would be.

The description of the Emergency Coordinator's duties and responsibilities on page 5.5 do meet, in most part, criterion B.4 requirements.

On the bottom of page 5.6, it is noted that the Plant Manager has very specific responsibilities. However, is the Plant Manager the Emergency Coordinator, noted on page 5.5?

Page 5.7 lists Table 5-2. Please see my previous comment on this table.

Table 5-1 lists a "Nuclear Safety Advisor." I am unable to determine who this individual is; and whether he is the Health Physics Supervisor or someone else. It is very unclear who this individual is and to determine what his responsibilities are.

Table 5-3; the table and its related discussion do not provide adequate information to evaluate this segment of the plan.

Section 6

Page 6.1, paragraph 6.0. It is stated that Table 6-1 shows the "assignment of responsibility." However, the table does not "assign" responsibilities, but only lists responsibilities.

Page 6.2; at the bottom of the page it is noted again that the Nuclear Safety Advisor reports to the control room. What does this Advisor do?

Page 6.6, paragraph 6.2; it is noted that the Maine state police are notified via state police radio. A question for my information, and for clarity of the plan, does Maine Yankee have a hook-up to the state police radio?

Page 6.7; the middle paragraph notes that the format of these messages will be pre-established. With reference to criterion E.3, when and by whom will the format be pre-established?

Page 6.8; under "Public Emergency Alerting System" (PEAS) it is noted that various subsystems and fixed sirens are described in conceptual terms. This is another example of how the plan is too brief and vague in its present state. It is also noted that sirens are to be located at certain sites; when will these fixed sirens be installed?

Page 6.10; the top of the page notes that "Tone Alert Transmitters" are available in an emergency. However, it is also noted that these individuals may desire to purchase their own monitors. My question is, are these actually in-place in the houses or is this speculation?

Under "Emergency Communications"; it is noted that two separate hotline systems will be installed. When?

Page 6.11; paragraph 6.3.1, it notes that the Plant Shift Superintendent will determine the appropriate emergency condition, etc. and will notify the Emergency Coordinator. This is another example of the confusion within the plan since the Emergency Coordinator already has this authority.

Page 6.12, paragraph 6.3.3; the description of the off-site radiation levels assessment is too brief and consequently, does not meet Criterion I. and its subcriteria.

Page 6.17, paragraph 6.5.1; it is noted that the information building is used as an emergency coordination center and is considered habitable if radiation levels are less than 10 mr per hour. I do not consider that this is a reasonable assumption. It does not discuss whether this 10 mr level is air concentrations, contamination on surfaces, or whatever. To me, this is an indication

of poor management attitude.

Page 6.18, paragraph 6.5.2; where are the kits itemized and why is no mention made of thyroid blocking agents in these kits?

Page 6.19, paragraph 6.5.4; when will these recommendations for off-site protective actions be made?

Page 6.20, paragraph 6.6.1; it is noted on the bottom of the page that "12 rem should be considered the allowable dose." My comment is that 12 rem is not considered an allowable dose, but it is considered the maximum allowable dose, and every reasonable effort must be made to minimize exposures.

Page 6.22, paragraph 6.6.2; the middle paragraph indicates that decontamination of injured personnel may be done in the Emergency Coordination Center. With reference to Figure 7.3, the Emergency Coordination Center is a room about 7.5 feet by 15 feet in dimensions. Therefore, the decontamination action is just not an applicable exercise for the Emergency Center.

Figures 6-7 through 6-11; the poor copies of the nomograms and the lack of discussion of them, as well as the emergency planning zones do not allow me to determine anything about their authenticity or whether they would work in an emergency. This is a very serious omission from the Maine Yankee Plan.

Section 7

Page 7.1, paragraph 7.1; with reference to my previous comments, the Emergency Coordination Center appears to be a very small room. I question whether such an area of this minimal size is appropriate for the Emergency Center activities.

Page 7.2; Figure 7-4 is described as showing a floor plan, but it is not included in the text of the plan. When will it be available?

Section 8

This section is too brief and does not meet, for example, Criteria N and O and their subcriteria.

Page 8.5, paragraph 8.4, when will the "audits section" be available?

Section 9

Page 9.4, paragraph 9.4; when will the description of the periodic estimate of population exposure discussion be available? This omission is a typical serious flaw in the overall plan.

Appendix 1 - Assistance Agreements.

The letters of agreement are mostly outdated. The draft of the Yankee Emergency Mutual Assistance Plan is very outdated. It is noted that a new draft plan is under preparation and review. When will this plan be available in its final form?

Appendix 2 - Evacuation Time Estimates.

The lack of information within this appendix and within the text of the plan on this subject does not permit one to provide an adequate response as to whether this material is valid for an emergency plan.