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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'88 SEP 22 P3:10

ATOMIC SAFETY AND LICENSING BOARD

Before the Administrative Judge:
Ivan W. Smith, Chairman
Gustave A. Linenberger, Jr.
Dr. Jerry Harbour

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)

PUBLIC SERVICE COMPANY)
OF NEW HAMPSHIRE, ET AL.)

(Seabrook Station, Units 1 and 2)
_____)

) Docket Nos. 50-443-OL-1
) 50-444-OL-1
) (Off-Site EP)

) September 21, 1988

MASSACHUSETTS ATTORNEY GENERAL'S
EXERCISE CONTENTIONS SUBMITTED IN RESPONSE TO THE
JUNE 1988 SEABROOK INITIAL FULL-PARTICIPATION EXERCISE

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INTRODUCTION

The Massachusetts Attorney General ("Mass AG") files these contentions with respect to the June 27-29, 1988 graded exercise held at Seabrook Station ("the Graded Exercise"). This Graded Exercise included a test of the Applicants' on-site emergency plan and the off-site emergency plans submitted by the State of New Hampshire for the New Hampshire portions of the EPZ and by the Applicants for the Massachusetts portion of the EPZ.

RIGHT TO LITIGATE EXERCISE

The Mass AG has a right rooted in the Atomic Energy Act to a hearing on the issue of whether the exercise of the off-site emergency plans for the Seabrook EPZ has revealed a

"fundamental flaw" in those plans. Union of Concerned Scientists v. NRC, 735 F. 2d 1437, 1443 (1984)("UCS v. NRC"). Before the NRC could find that there is reasonable assurance that adequate protective measures can and will be taken in the event of an emergency at Seabrook Station, an initial full-participation exercise must be held. 10 CFR Part 50 Appendix E. ¶ IV. F. 1. See Long Island Lighting Company (Shoreham Nuclear Power Station, Unit I) 26 NRC 479, 488 (1987). This initial full-participation exercise must test "as much of the licensee, State and local emergency plans as is reasonable achievable without mandatory public participation" Id. at 487. The results of this exercise are relied upon by the Commission in determining whether the state of off-site preparedness is adequate and, thus, are relevant to a material issue bearing on the issuance of a full-power license. UCS v. NRC, supra at 1443.^{1/} The NRC reviews

^{1/} When the offsite plan is formulated and implemented by State and local governments (like the NHRERP), the NRC will base its determination on FEMA's findings regarding whether that plan can be implemented. 10 CFR 50.47(a)(2). If a contention is admitted as to the adequacy of the plan or the government's implementation capacity as revealed by the exercise, a positive FEMA finding constitutes a rebuttable presumption of adequacy. When the offsite plan is formulated by the utility, the NRC will determine the adequacy of that plan in combination with the expected response of the non-participating governments. 10 CFR 50.47(c)(1). The NRC's finding as to the adequacy of utility offsite plans is not based on any determination made by FEMA and no rebuttable presumption attaches to a FEMA finding in the event a contention raising the adequacy of utility offsite preparedness is admitted. To this extent, the regulatory framework for utility off-site emergency planning is similar to licensee on-site emergency planning which is also evaluated by the NRC without provision in the regulations for FEMA findings and determinations. Cf. 10 CFR 50.47(d) with 50.47(c)(1).

exercise results to determine whether the exercise has revealed deficiencies in the plans:

Under our regulations and practice, Staff review of exercise results^{2/} is consistent with the predictive nature of emergency planning, and is restricted to determining if the exercise revealed any deficiencies which preclude a finding of reasonable assurance that protective measures can and will be taken, i.e. fundamental flaws in the plan. Since only fundamental flaws are material licensing issues, the hearing may be restricted to those issues.

Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1) 23 NRC 577, 581 (1986).

ALLEGING A FUNDAMENTAL FLAW

Thus, the standard to be applied to the admissibility of the contentions that follow must accommodate on the one hand, the Mass AG's right to a hearing on the exercise, and on the other, the Commission's clear instruction that those exercise results are material to full-power licensing (and trigger that hearing right) only to the extent that they would establish fundamental flaws in the existing plans. As the Commission stated in the initial Shoreham exercise proceeding:

We . . . direct:] the Board to admit only those Intervenor contentions which satisfy the specificity and other requirements of 10 CFR § 2.714 by: (1) pleading that the exercise demonstrated fundamental flaws in LILCO's plan; and (2) by providing bases for the contentions which, if shown to be true, would demonstrate a fundamental flaw in the plan.

Id. at 581.

^{2/} As noted, when an exercise of a State and local government plan is at issue, Staff review is itself based on FEMA's findings as to the existence of any plan deficiencies. Since these FEMA findings form the basis of the NRC's determination concerning adequate implementation capability, if FEMA has not found a deficiency in the exercise of a State and local plan then the Staff would no doubt follow FEMA's lead. However, since FEMA's review of utility off-site plan is not the basis of the NRC finding that utility off-site preparedness is adequate, FEMA's judgment on the adequacy of the utility's performance during the exercise should not guide the Staff's review. This is particularly true in this case because FEMA's exercise review, as discussed more fully below, was based on evaluative criteria that assume away critical issues raised by utility plans and their implementation.

In establishing this test for admissibility, the Commission expressly rejected the utility's proposal that contentions be excluded which do not "demonstrate fundamental flaws in the emergency plan." Id. Such a proposal "has the potential to require premature evidentiary decisions," id., inappropriate at the contention-admission stage of a proceeding.^{3/}

Focusing on the second prong of this admissibility standard, there are two further issues that should be addressed: (1) what information is now available to the Mass AG on the basis of which bases can be identified?; and (2) what obligation is there to plead all available bases at this juncture?

A. Sources of Information Available to the Mass AG

The contentions that follow are based on the following three sources: (1) direct observations of Mass AG and other Intervenor exercise observers; (2) over 11,000 pages of documentation produced by those participating in (but not evaluating) the exercise; and (3) the draft and final versions of the FEMA Exercise Report. The capacity of the Mass AG at this juncture to provide bases for his contentions is markedly limited by his available sources. As a result, unless these limitations are acknowledged in assessing the admissibility of these contentions, the hearing rights that attach to this exercise will be constructively denied. First, as the attached

^{3/} In so holding, the Commission indicated yet again that the standard to be applied to the admissibility of a contention is a Fed. R. Civ. P. 12(b)(6) standard, i.e., failure to state a claim upon which relief can be granted which standard assumes the well-pleaded facts of the claim are true.

correspondence^{4/} indicates, the restrictions placed on the Mass AG's observers were significantly greater than those placed on FEMA evaluators or NRC observers. In light of the Mass AG's right to litigate the results of the exercise (and his concomitant duty to set forth factual bases for his contentions alleging fundamental flaws) it is unclear why the Mass AG should not have been afforded prima facie the same observational opportunities as the NRC Staff, which should be equally interested in determining whether the exercise revealed fundamental flaws. Obviously, a right to litigate the exercise plus an obligation to allege facts equals an opportunity to meaningfully observe.^{5/} Second, the enormous quantity of material made available to the Mass AG, in addition to raising the issue of the sufficiency of the time provided in which to review that material,^{6/} only highlights the critical and glaring lack of information available at this juncture -- the observations of those FEMA and NRC observers and evaluators who were permitted to witness fully the exercise have not yet been

4/ Attached as Exhibits 1 through 4 are correspondence between two assistant Attorneys General and Applicants regarding the restrictions placed on the Mass AG's observers during the exercise.

5/ The attached correspondence, in addition to being selected as a model for law school training courses on "How to Make a Record" does establish indisputably that the Mass AG observers were not permitted observational, "advocate or investigatory participant [?] status" (Exhibit 4 at 1) during the Exercise.

6/ In addition, some of the material contains technical information which requires careful review and assessment by experts before its significance can be fully apprehended.

made available to the Mass AG. The available documentation (over 11,000 pages) was generated by the exercise players themselves.

B. Pleading All Available Bases

A well-pleaded contention must identify the regulatory violation allegedly at issue, describe with some specificity the nature of that violation and provide the requisite factual basis to insure that litigation of the issue is appropriate. In short: a contention without specificity is blind; a contention without basis is empty. As exercise contentions, the following contentions identify planning standards set forth at 10 CFR 50.47(a), (b) and (d) and Appendix E and aver that the actual conduct of the exercise has revealed fundamental flaws in the state of emergency preparedness as to those standards. However, there is no obligation on the Mass AG at this juncture to identify all factual bases which would support the admissibility of a submitted contention. Such a pleading requirement would directly contravene the procedural purpose of the basis and specificity requirements and, in fact, require a full evidentiary presentation before the contention had even been admitted and discovery had begun. To require all factual bases to be set forth at the pleading stage at the risk of not being permitted later to proffer evidence in support of a contention in the absence of such a basis, is to transform the need for basis and specificity into a standing interrogatory to be answered at the threshold -- "state all facts that support any contention you submit." Such a procedural course not only invites but mandates "premature evidentiary decisions." *Id.* at

581. Thus, an intervenor is not limited to what she does say in the way of factual support for a contention once that contention is admitted and she is not limited by what she does not say. Her obligation is simply to provide "bases for the contentions which, if shown to be true, would demonstrate a fundamental flaw in the plan." Id. This is particularly true here because the Mass AG was afforded limited observer status and observations made by those who could actually observe key exercise events. In this posture, the only avenue open to the Mass AG is to plead bases by example.

Further, it is appropriate to plead bases both individually and cumulatively in support of a contention, i.e., any one of a series bases or combination of some or all of them provide factual support to find (assuming the facts are true) that fundamental flaws exist in the state of preparedness as revealed by the exercise. Correctly pleaded and understood as factual (or legal) support for contentions, bases themselves should not be admitted or rejected at all.

It is in the light of both the presently available sources of information and the pleading requirements of basis and specificity that these contentions alleging fundamental flaws in the June 1988 exercise should be considered.

POSITION OF FEMA

As several of the contentions that follow make clear in more detail, FEMA's review of the exercise of the SPMC should not be treated in the same fashion as its review and evaluation of the NHRERP.

A. FEMA review of utility off-site preparedness does not form the regulatory basis for the NRC's determination pursuant to 10 CFR § 50.47(c)(1) that there exists reasonable assurance that adequate protective measures can and will be taken. Cf. 50.47(a)(2) with 50.47(c)(1) and 50.47(d).

B. FEMA violates its own regulations when it applies its preparedness criteria to the licensee's emergency plans. FEMA's regulations limit its role to the evaluation and assessment of State and local governmental emergency plans.

C. FEMA made certain assumptions which it incorporated into its evaluative framework before it established the exercise scenario and reviewed ORO's performance. These assumptions severely limit the scope of the FEMA finding and involve FEMA in a thoroughgoing circularity of judgment that marginalizes the FEMA findings for purposes of the issues before this Board:

1. This Board has ruled that the governments will not be presumed to follow the SPMC unless and until the SPMC is demonstrated to be an adequate plan. The Mass AG and other intervenors have contended that the SPMC is not an adequate plan, inter alia, because it is not easily accessed by or communicated to those government emergency responders who might

be presumed to attempt to follow it. (See, e.g. Joint Intervenor's Contention 62). As this Board ruled in its July Memorandum and Order:

[C]ontentions challenging the fundamental effectiveness or implementability of the SPMC are not rebuttals to the presumption. . . . Our ruling means simply that an emergency plan that cannot be followed does not carry with it the presumption that it will be followed. July Order at 25 (emphasis supplied).

Yet, notwithstanding the fact that the issue of the SPMC's implementability has been directly joined before this Board, FEMA designed an exercise scenario and evaluated ORO's performance based on the assumption that the relevant governments will follow the plan. Having to decide whether the SPMC could be followed, this Board will find FEMA's findings peculiarly irrelevant because FEMA simply assumed the SPMC would be followed.

D. Similarly, a critical if not dispositive issue in this case -- whether the expected realistic response by the non-participating governments "in combination with the utility's compensating measures", 10 CFR 50.47(c)(1), meet the reasonable assurance standard -- was intentionally ignored by FEMA in the design of the exercise scenario and in the review of the exercise results. FEMA simply assumed that the governments would do nothing beyond delegate all necessary authority to the ORO. But as set forth in more detail below, this evaluative assumption was necessary for FEMA if it was to overcome its well-grounded institutional judgment that in the absence of State and local government planning and participation in exercises a reasonable assurance finding would

be based on mere conjecture. As the Commission recognized in its Statement of Consideration in support of its December 1987 amendment to 10 CFR 50.47(c):

The problem of how the NRC can decide the adequacy of emergency planning in the face of FEMA's declared reluctance to make judgments on emergency planning in cases of state and local non-participation does not appear insoluble. Though FEMA has expressed its reluctance to make judgments in such circumstances, because of the degree of conjecture that would in FEMA's view be called for, we do not interpret its position as one of refusal to apply its expertise to the evaluation of a utility plan FEMA's advice would undoubtedly include identification of areas in which judgments are necessarily conjectural, and NRC's overall judgment on whether a utility's plan is adequate would in turn have to take account of the uncertainties included in FEMA's judgment. Beyond a certain point, uncertainty as to underlying facts would plainly make a positive finding on "reasonable assurance" increasingly difficult. These are issues, however, which can be addressed in the case-by-case adjudications on individual fact-specific situations.
52 Fed. Reg. 42078, 42082 (November 3, 1987).

In this case "conjecture" has been replaced by "assumptions" which were written for FEMA by the NRC. The result is a FEMA determination on utility plan adequacy that includes no uncertainties because it assumes away the very issues at the heart of a finding of utility off-site preparedness. In overcoming its empirical doubts by accepting the NRC's theoretical assumptions, FEMA has made its findings irrelevant to the issues before this Board.

THE EXERCISE CONTENTIONS

MAG EX 1: The scope of the initial full participation exercise conducted for Seabrook Station on June 27-29, 1988 was so limited that that exercise did not and could not support a finding by the NRC pursuant to 10 CFR 50.47(a)(2)(on the NHRERP) and 10 CFR 50.47(c)(1)(iii)(on the SPMC) that there is reasonable assurance that the relevant plans can be implemented and that adequate protective measures can and will be taken. The limited scope represents a fundamental flaw in the exercise. As a result, the requirements set forth at 10 CFR Appendix E, ¶ IV.F.1 for an initial full-participation exercise have not been met. See Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), 26 NRC 479, 488 (1987). In a case in which a significant portion of the EPZ lies within the jurisdiction of non-participating governments, the NRC will review and evaluate the level of emergency preparedness resulting from the formulation of utility-only plans. 10 CFR 50.47(c)(1). These plans will be exercised and the results of these exercises will be relevant to any reasonable assurance determination reached by the NRC. An exercise must be broad enough to test adequately the utility's capability to implement its own plan when the relevant governments have not participated in prior emergency planning. In judging whether an exercise has adequately tested the utility's capacity to implement its own plan, the provisions of that plan itself should be considered. For example, if a utility (rightly or wrongly) does not assign to itself in its plan any snow removal

role during an emergency, the exercise of that plan need not test the snow removal capabilities of the utility. But contrariwise, if a utility does establish a role or a variety of roles for itself in its own plan then an adequate initial full-participation exercise of this plan would test the utility's capacity to play those roles as long as this is "reasonable achievable without mandatory public participation." 10 CFR Part 50, Appendix E, ¶ IV.F.1.

A. NUREG-0654 ("Supp 1") establishes that an exercise of a utility-only plan must:

include[] the demonstration of off-site response organization capabilities to interface with non-participating State and local government
Supp 1 at II.N.1.b.

Similarly, Supp 1 establishes as a requirement of an adequate utility-only plan that:

The off-site response organization shall identify liaison personnel to advise and assist State and local officials during an actual emergency in implementing those portions of the off-site plan where State or local response is identified.
Supp 1 at II.C.5 (emphasis supplied).

In line with these requirements FEMA added the following objective to the list of exercise objective applicable to the June 1988 exercise:

Demonstrate the capability of utility off-site response organization personnel to interface with non-participating State and local governments through their mobilization and provision of advice and assistance. FEMA Guidance Memorandum (GM) EX-3 Amendment (March 7, 1988) at 2.

The June exercise failed to adequately test ORO personnel's capacity to meet this objective. The exercise in no fashion

called on ORO personnel in the field to display their ability to advise and assist governmental personnel, who may be mobilized at the time of an emergency, in following the SPMC. Instead of exercising these capacities, FEMA evaluators simply asked some of the ORO field personnel (traffic guides at ACPs and TCPs) what they would do if local officials arrived to carry out response functions. FEMA Final Report at 242. As a result, there is no basis for finding that ORO field personnel have demonstrated the capacity to effectively interact with governmental personnel in the likely event that at the time of an emergency these governmental personnel take concrete actions in the Massachusetts EPZ to respond to an emergency. Similarly, the capacity of the 9 ORO liaison personnel to identify the unfolding governmental emergency response, harmonize ORO actions with it and communicate with relevant government officials as to further actions was not tested. The FEMA Control Cell (simulating the non-participating officials) did not test the liaison personnel's capacity to communicate the essentials or the details of the SPMC to governmental officials.

B. Moreover, as FEMA has noted, there are specific exercise objectives which are "legal authority-sensitive." (GM EX-3 Amend. at 2-3 listing objectives 11-26, 30, 32-33).

They may be authority-sensitive because some aspect of their implementation in an actual radiological emergency may be dependent upon the authority of the non-participating State and local governments. Thus, the demonstration of these objects in an exercise could be dependent upon how authority-related issues are addressed in the utility [ORO] plan

The demonstration and evaluation of the objectives should follow the specific provisions of the plan being tested If the plan requires the utility [ORO] to secure legal authority to carry out necessary functions, they should follow the procedures contained in the plan that would be used in the event of an emergency.

Id. at 2-3,4. (emphasis supplied).

The SPMC expressly identifies specific response functions which the ORO is legally prohibited from unilaterally fulfilling. The SPMC posits a range of possible combinations of response: from pure Mode 1 in which the ORO offers assistance to the responding governments, through a "mixed delegation" Mode 2 in which ORO handles certain response areas while the governments retain control over others, to a pure Mode 2 in which all requisite authority is purportedly delegated to the ORO. These various modes were not exercised even though as a matter of both fact and law pure Mode 1 or "mixed-delegation" Mode 2 are far more likely to occur in reality than pure Mode 2. The exercise tested only ORO's capacity to meet the "legal authority-sensitive" objectives assuming the Commonwealth delegates all necessary authority and does not itself respond -- as any intelligible best-efforts assumption would mandate^{7/} -- with emergency response actions on the ground.

^{7/} As Public Service of New Hampshire noted in its comments to the Draft Supp 1 document:

"A utility plan should be expected to account for varying degrees of participation in response to an actual radiological emergency."

NRC/FEMA Analysis of Comments [received on Supp 1] at 11. As a corollary, an initial full-participation exercise of such a plan should test the capacity of the utility's ORO to integrate and coordinate such varying degrees of governmental best-efforts response. Failure to test adequately that capacity constitutes a fundamental flaw in the exercise.

The SPMC posits just such a range of mixed and (purportedly coordinated) government and ORO responses yet the exercise did not test the ORO personnel's capacity to anticipate, accept, integrate, coordinate and harmonize the likely governmental responses. The exercise scenario assumed that the Commonwealth and each community would not respond to the emergency and:

The FEMA Control Cell did not commit any State or local resources or personnel to assist in the NHY ORO response. Legal authority was requested and received for appropriate response activities
FEMA Final Report at 242.

In light of this glaring failure to test the capacity of ORO to implement critical provisions of the utility's own plans, this exercise does not meet the legal requirements and its results will not support a reasonable assurance finding.^{8/}

^{8/} Putting the same point a different way: no presumption will be entertained concerning the governments following the SPMC until it is established as an adequate plan. The SPMC sets forth as one possible manner in which the governments could follow the plan a mixed-delegation Mode 2. Before it could be presumed that such a mixed mode would be followed, the capacity of the ORO to implement it would have to be established. (If the ORO could not perform in this mixed mode then that mode would not be established as adequate and the governments would not be presumed to follow it.) But the exercise did not test the ORO's capacity in this regard at all. Because only pure Mode 2 was tested by this exercise, the results could only support a finding of reasonable assurance based on a pure Mode 2 implementation of the SPMC. Not only is the legality of such a pure Mode 2 delegation at issue in this proceeding, but the SPMC is not limited to that mode. Thus, the exercise was too limited in scope to test the authority-related issues as those issues "are addressed in the utility [ORO] plan." FEMA GM EX-3 Amendment at 3.

MAG EX 2: The scope of the June 28-29, 1988, exercise of the SPMC was so limited that it could not and did not yield valid or meaningful results on implementation capability as required by 10 CFR § 50.47(a)(2) and Appendix E paragraph IV.F.1. in that it did not include demonstrations or evaluations of major portions of the SPMC and the emergency response capabilities of many persons and entities relied upon to implement it. The data set forth in the subparts of this contention individually and collectively establish that there is no reasonable assurance that the SPMC can or will be implemented in critical respects. Thus, the exercise precludes a finding that there is reasonable assurance that adequate protective measures can and will be taken, as required by 10 CFR § 50.47(c)(1).

Each of the following portions of the plan, or the response capability of the following organizations relied upon, was required to be tested for this Exercise to qualify as the initial full participation Exercise. For all of the plan portions and supporting organizations listed, the Exercise did not test "as much of the ... plans as is reasonably achievable without mandatory public participation." 10 CFR Part 50, App. E, par. IV.F.1.

A. The hardware involved in the VANS system was not exercised, nor was the capability of the ORO to use this hardware in a timely and effective manner. The VANS system

includes the Whelen sirens, the trucks on which they are to be mounted, and the VANS drivers. During a real emergency, the VANS trucks with their Whelen sirens are to travel from their staging areas to pre-established acoustic locations, park, deploy outriggers, and then the sirens are to be hydraulically lifted high into the air. During the Exercise, the following capabilities were not tested or demonstrated:

a. driving times from the VANS staging areas to acoustic locations using fully equipped VANS vehicles, to determine whether transit times are such that the 15-minute criterion can be met. (The much smaller, lighter personal cars used during the Exercise are likely to be able to be driven faster to these acoustic locations.)

b. ability of VANS drivers, once at the acoustic locations, to park vehicles in an appropriate location, deploy the outriggers, remove the boom strap, raise the siren to its operational height, and do all this in a short enough time to permit the 15-minute criterion to be met.

c. suitability of each acoustic location for the planned VANS usage, i.e., is the ground level and firm enough, even in bad weather, to provide adequate stability to the VANS vehicles when sirens are fully lifted.

d. familiarity of the VANS drivers with the siren system operation.

e. operability of sirens.

All of these items could and should have been tested and were not. A VANS siren operability test, like many other aspects of the SPMC tested during the Exercise, could have been held out of sequence at a suitable location, perhaps at Seabrook Station or in an indoor location in a large garage, so as not to have disturbed the public.

B. The ability of the primary EBS radio station to promptly broadcast the EBS messages was not tested. After EBS messages were telefaxed to the station, no effort was made to determine how quickly the station could review the message and prepare an announcer to read it over the air. This, too, is an important element in ascertaining whether the 15-minute criterion can be met. In addition, no effort was made to test how well the announcer could read the message after this very short preparatory period. Apparently, tapes were made at the station of the announcers reading the EBS messages, but this occurred out of sequence with a check on how much time was spent in preparing to read the message.

C. Only the primary EBS radio station participated in the Exercise; the secondary stations did not participate at all.

D. ORO's plans and procedures for public education and the dissemination of information to the public on a periodic basis and a demonstration of the adequacy of public education materials were excluded from the Exercise. Such materials are required by 10 CFR § 50.47(b)(7) and Part 50, App. E., par. IV.D., and NUREG-0654 § II, G.

E. ORO's capability to implement a timely evacuation of the Mass. EPZ's two hospitals and all other special facilities was not tested. Specifically, ORO did not attempt to demonstrate that it could muster the appropriate vehicles and personnel to the EPZ hospitals, nursing homes, and other special facilities in a timely fashion and did not attempt to demonstrate appropriate procedures for loading patients. (The total "extent of play" for testing hospital evacuation procedures was that one ambulance was assigned the task of driving to one hospital and then to a reception center.) The Exercise also failed to test the preparedness of the bus, ambulance, and wheelchair van companies being relied upon for this important function. It should be noted that the simulated plume released during the Exercise put both Massachusetts EPZ hospitals at risk and eventually passed over them both. Both should have been evacuated. Likewise, most other special facilities in the Massachusetts EPZ were put at risk and should have been evacuated as well.

F. The ability of the Massachusetts chapters of the American Red Cross to establish and maintain the Host Special Facility and the 26 Congregate Care Centers was not tested or evaluated at all, and activation of none of these facilities occurred during the Exercise. The fact that the American Red Cross has refused to participate in Massachusetts in planning and preparing for an emergency at Seabrook cannot be used to justify their absence from the Exercise. As a key support organization, their capabilities and preparedness need to be evaluated just as the

capabilities of the primary EBS station or the MS-1 Hospital need to be evaluated. Since the NRC rule change in November of 1987, the participation of state and local governments is no longer required in a "full participation" exercise "to the extent that the applicant has identified those governments as refusing to participate further in emergency planning activities." 10 CFR Part 50, App. E, par. IV.F.6. But for this exception, however, a "full participation" exercise must include "testing the major observable portions of the onsite and offsite emergency plans and mobilization of state, local and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario." 10 CFR Part 50, App. E, par. IV.F.1, n.4. The resource which NKY's ORO is relying on to establish, staff, and maintain the Host Special Facility and the Congregate Care Centers is the ARC, yet no ARC resources whatsoever were tested in Massachusetts during this Exercise. This is not an excusable defect in this Exercise. While Appendix E does not require testing those parts of a plan which are not "reasonably achievable without mandatory public participation," *Id.* at IV.F.1., this is not such a part. The establishment, staffing, and maintenance of the Host Special Facility and Congregate Care Centers was clearly reasonably achieved without mandatory public participation. All that was needed was the ARC; no member of the public needed to be involved. The ARC's absence alone constitutes a fundamental flaw in the Exercise, and it cannot qualify as a full participation exercise. Furthermore, there is no reasonable

assurance that in the event of an emergency at Seabrook the ARC can, without any prior planning or preparedness, mobilize the staff and resources needed to establish the Congregate Care Centers and Host Special Facility in a timely fashion.

G. During the Exercise, school administrators, special facility administrators, and hospital administrators were not evaluated at all to assess how knowledgeable and prepared they are to implement appropriate sheltering and evacuation procedures for each of their facilities. The SPMC relies primarily on these administrators to perform these functions, assisting only in the provision of transportation resources if such resources are needed. During the Exercise, these administrators were not even contacted by FEMA evaluators and questioned voluntarily regarding whether they have the knowledge, plans, and capability to implement what will be required of them and their staffs in a real emergency. By using at least a questioning/interview process, some voluntary assessment of their sheltering and evacuation capabilities could have been achieved. This same questioning/interview process was used by FEMA evaluators during the Exercise to partially evaluate other important emergency responders. For example, Traffic Guides were questioned very briefly to assess their knowledge of their procedures. This technique would have been useful in assessing the administrators as well. Participation in answering these questions need not have been considered mandatory for the

school, hospital, and other special facility administrators. While some may have refused to answer FEMA's questions regarding the state of their preparedness, there is every reason to believe that most would have been quite willing to speak to FEMA: Those who support Seabrook and are prepared would want FEMA's evaluators to know this just as those who oppose Seabrook and are not prepared would want FEMA to note this as a deficiency. Those administrators who are neither for nor against Seabrook would have no reason not to tell FEMA about their preparedness either. The only reason FEMA may be reluctant to voluntarily question school, hospital, and special facility administrators is that it senses correctly that there is a general unpreparedness in these facilities and does not want to document how gravely inadequate things are. This is hardly a valid reason for the total lack of any evaluation of these administrators during the initial "full participation" exercise.

The fact that some of the school administrators work in public schools cannot justify an absence of any evaluation of them either. First, the exemption from a full participation exercise for state and local governments is not an absolute exemption but one which expands or contracts its coverage "to the extent that" non-participation is realistically expected. See 10 CFR Part 50, App. E, par. IV.F.6. As noted above, participation in a voluntary questioning/interview would have been expected. Second, public schools in Massachusetts are

governed by school committees which are independent of local city and town governments except as a source of funding. Thus, in a "full participation" exercise, their participation is not excused by 10 CFR Part 50, App. E, par. IV.F.6. Third, although one need not test parts of the SPMC that are not "reasonably achievable without mandatory public participation." Id. at IV.F.1, some assessment of the preparedness of these administrators is reasonably achievable through voluntary questioning/interviewing.

Absent such an evaluation of these key administrators for schools, hospitals, and other special facilities, the Exercise had insufficient scope to base a finding that adequate protective measures can and will be taken for school children, hospital patients, nursing home residents, and those in other special facilities.

MAG EX 3: In the circumstances in which a significant portion of the EPZ lies within the jurisdiction of non-participating governments, the NRC will review and evaluate the level of preparedness resulting from the formulation of utility-only plans. 10 CFR 50.47(c)(1). This review "may result in the Commission declining to issue an operating license." Id. An operating license "may be issued if the applicant demonstrates to the Commission's satisfaction that:

(iii) The applicant's emergency plan provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned. To make that finding, the applicant must demonstrate that . . . adequate protective measures can and will be taken in the event of an emergency. Id.

The prospective finding that is necessary for full-power operation -- that adequate protective measures will be taken -- is not supported by the June 1988 exercise in the absence of :

(1) any participation in the exercise by the relevant governments whose necessary involvement (in one form or another) at the time of an actual emergency is not disputed by the Applicants^{2/}

; and/or (2) any attempt to demonstrate the capacity of the non-participating governments to implement the SPMC (other than

^{2/} This statement should not be misread as an impermissible challenge to 10 CFR Part 50, Appendix E. IV.F.6. An exercise is not flawed per se simply because non-participating governments do not participate. However, when a significant portion of an EPZ has no participating governments at either the local or higher level and it is undisputed that these governments as a matter of fact and law hold the key to what would actually occur during an emergency (because the utility is unable unilaterally to implement its own plan) then their failure to participate in that exercise makes any prospective finding about what protective measures will be taken too speculative to support licensing.

in pure Mode 2) without any preplanning, training, or familiarity with that plan; and/or (3) any attempt to demonstrate that the ORO could effectively accommodate a best efforts response by the non-participating governments which involved not mere delegation of authority but actual concrete efforts to protect the public. In the absence of any test of these capabilities -- which individually and collectively capture the essence of the Commission's "realism doctrine" -- the June 1988 exercise was fundamentally flawed and its results will not support a reasonable assurance finding. Instead of testing the SPMC in pure Mode 2 (which is a planner's fiction to avoid the difficult issues of coordination and accommodation) the exercise should have recognized:

the reality that in an actual emergency, State and local government officials will exercise their best efforts to protect the health and safety of the public . . . [and] determine[d] the adequacy of that expected response, in combination with the utility's compensating measures, on a case-by-case basis. . . .
10 CFR 50.47(c)(1).

MAG EX 4: The June 1988 exercise for the Massachusetts portions of the EPZ tested Mode 2 of the SPMC. As such the exercise was fundamentally flawed because the delegation of authority by the Commonwealth to a foreign bankrupt corporation simulated during the exercise is unlawful. Thus, the exercise can not support the finding necessary for full power operation pursuant to 10 CFR 50.47(c)(1).

MAG EX 5: The June 1988 exercise for the Massachusetts portions of the EPZ tested Mode 2 of the SPMC. As such the exercise was fundamentally flawed because it failed to account for the best efforts responses of State and local governments which are to be assumed under 10 CFR 50.47(c)(10) in evaluating the SPMC. If such "expected response" is to be assessed on a case-by-case basis "in combination with the utility's compensating measures", *id.*, then an exercise that does not permit such an assessment is irrelevant to a finding pursuant to 10 CFR 50.47(c)(1).

MAG EX 6: To the extent that FEMA has engaged in a review and evaluation of utility- or licensee-only emergency preparedness and has purported to make findings as to the adequacy of that preparedness, FEMA has acted outside and beyond its legal authority and any such FEMA review and evaluation and any such findings that result from or follow upon such review and evaluation, which are represented as findings of that agency, are a legal nullity and have no legal effect or significance in this proceeding or otherwise.

A. FEMA has reviewed the SPMC and the June 1988 exercise pursuant to its regulations set forth at 44 CFR 350 (the "350 Process"). However, those regulations expressly limit FEMA to the review of State and local governmental off-site emergency plans:

The regulation in this part [44 CFR 350] does not apply to, nor will FEMA apply any criteria with respect to, any evaluation, assessment or determination regarding the NRC licensee's emergency plans or preparedness, nor shall FEMA make any similar determination with respect to the integration of off-site and NRC licensee emergency preparedness except as these assessments and determinations affect the emergency preparedness of State and local governments. The regulation in this part applies only to State and local planning and preparedness with respect to emergencies at commercial nuclear power facilities and does not apply to other facilities
10 CFR 350.4 (emphasis added).

B. The authority cited by FEMA in support of its review of utility off-site plans is twofold:

1. FEMA refers to 44 CFR 350.3(f) which provides:

Notwithstanding the procedures set forth in these rules for requesting and reaching a FEMA administrative approval of State and local plans, findings and determinations on the current status of emergency preparedness around particular sites may be

requested by the NRC and provided by FEMA for use as needed in the NRC licensing process. These findings and determinations may be based upon plans currently available to FEMA or furnished to FEMA by the NRC through the NRC/FEMA Steering Committee.

This provision was part of the 44 CFR 350 regulations adopted by FEMA on September 28, 1983. 48 Fed. 44332, 44337 (September 28, 1983). The provision entitled "Exclusions" quoted earlier (350.4) was (and is) the immediately following regulation.

2. FEMA and the NRC signed a Memorandum of Understanding on April 18, 1985 ("1985 MOU") 50 Fed Reg 15485. The purpose of this MOU was to provide the "basis and conditions for interim findings" pursuant to 44 CFR 350.3(f):

Notwithstanding the procedures which are set forth in 44 CFR 350 for requesting and reaching a FEMA administrative approval of State and local plans, findings and determinations on the current status of emergency planning and preparedness around particular sites, referred to as interim findings, will be provided by FEMA for use as needed in the NRC licensing process An interim finding provided under this arrangement will be an extension of FEMA's procedures for review and approval of off-site radiological emergency plans and preparedness set forth in 44 CFR 350. It will be based on the review of currently available plans and, if appropriate, joint exercise results related to a specific nuclear power plant site.
1985 MOU, 50 Fed Reg 15485, 15486

FEMA's regulations, therefore, do permit "interim findings" (1985 MOU) which reflect its evaluation of the "current status" (44 CFR 350.3(f)) of preparedness. However, the regulatory context makes clear that this additional procedure was aimed at delays in NRC licensing caused by FEMA's normal 350 review of State and local governmental plans. Section 350.3(f) and the

1985 MOU do not extend FEMA's jurisdiction to include evaluation of utility off-site plans or otherwise modify 350.4 limitations. This conclusion follows from the following:

a. The exclusionary language of 350.4 was adopted by FEMA at the same time that provision was made in 350.3(f) for findings on the "current status" of planning.

b. The MOU at no point mentions or refers to utility off-site plans. Instead, it speaks of "plans currently available to FEMA or furnished to FEMA by the NRC/FEMA Steering Committee." 50 Fed Reg 15485, 15486 n.1. Thus, the MOU simply took official notice of the fact that FEMA had been receiving State and local plans (from both utilities^{10/}

and governments) for review without following the formal request procedures set forth at 44 CFR 350.7. Section 350.7(d), for example, requires a state's application for formal FEMA review to include a statement that "in the opinion of the State, [the submitted plan is] adequate to protect the public health and safety" The MOU did not (and could not) extend FEMA's review to utility off-site plans in light of the exclusionary language of 350.4.

10/ Utilities had prepared offsite plans on behalf of State and local governments which these governments affirmed as their own and some of these plans were submitted to FEMA by the utilities acting for the State and local governments. As David McLoughlin explained during Congressional hearings in May 1987: There are places in the United States where a utility has done the great bulk of the planning itself. It has the [sic] been adopted by State and local governments and there has been a lot of training to bring State and local people up to the ability to perform the operations that are outlined in the plan.

These plans were reviewed pursuant to 350.3(f) and this review did not contravene 350.4 because the State and local governments adopted these utility plans as their own.

c. The language of the MOU makes clear that its focus was the procedural aspects of FEMA review of State and local government plans and not the substantive issue of whose plans would FEMA review:

If in FEMA's view the plans [being reviewed pursuant to the 1985 MOU] that are available are not completed or are not ready for review, FEMA will provide NRC with a status report delineating milestones for preparation of the plan by the offsite authorities .

50 Fed Reg 15485, 15486.

The FEMA reports will be a part of an interim finding on emergency preparedness; or will be the result of an exercise conducted pursuant to FEMA's review and approval procedures under 44 CFR Part 350. Exercise evaluations will identify one of the following conditions: . . . (2) there are deficiencies that may adversely impact public health and safety that must be corrected by the affected State and local governments in order to provide reasonable assurance that the plan can be implemented

In short, no legal authority supports FEMA's review of the SPMC and the June 1988 exercise and its findings qua agency findings are a nullity.^{11/}

11/ That FEMA has some concern over these issues is clear from the following:

(1) In September 1987, a draft proposed amendment to 44 CFR 350 was circulated by FEMA to all state emergency management directors. FEMA proposed, inter alia, to amend the exclusionary language of 350.4 as follows:

The regulation in this part does not apply to, nor will FEMA apply any criteria with respect to any evaluation, assessment or determinations regarding the NRC licensee's on-site emergency plans or preparedness, nor shall FEMA make any similar determination with respect to the integration of offsite and NRC licensee on-site emergency preparedness except as these assessments and determinations affect the emergency preparedness of State and local governments. [The] This regulation [in this part] applies [only to State and local planning and preparedness with respect to emergencies at commercial nuclear power facilities] and does not apply to other facilities (words added by FEMA are underlined, words deleted by FEMA are bracketed)

(2) The November 1987 Draft NUREG-0654, Supp 1 at 1 stated:

It [Supp 1] is consistent with the provisions of the FEMA/NRC [1985 MOU], wherein the parties agreed to evaluate plans prepared by utilities on behalf of State and local governments. (emphasis supplied)

The final version of this same sentence reads:

It [Supp 1] is consistent with the provisions of the FEMA/NRC [1985 MOU], wherein the parties agreed to evaluate plans prepared by utilities and provided to FEMA by the NRC. As noted, the 1985 MOU contains not one reference to utility offsite plans.

MAG EX 7: The SPMC and the June 1988 graded exercise of the SPMC were reviewed and evaluated by FEMA. The findings of FEMA should be given no weight as agency findings in this proceeding.

A. Unlike FEMA findings and determinations as to the adequacy of State and local government emergency plans, no rebuttable presumption attaches to a FEMA review of utility offsite preparedness. Cf. 50.47(a)(2) with 50.47(c)(1).

B. FEMA's review of the state of preparedness for the Massachusetts EPZ was expressly based on three "assumptions." One of these assumptions -- that the non-participating governments will follow the SPMC -- should not be made unless and until the SPMC is determined to be an adequate plan. Another assumption -- that the governments will "have the resources sufficient to implement those portions of the utility offsite plan where State and local response is necessary" (Supp 1 at 2) -- completely undermines the integrity of any FEMA determination regarding the adequacy of offsite preparedness. FEMA has simply assumed that the governments' resources will be adequate in the event that the SPMC is "generally followed" in accordance with Mode 1 and mixed-delegation Mode 2. Yet, one key issue in this proceeding, at least as to the adequacy of the implementation of the SPMC in any mode other than pure Mode 2 (which is unlawful), is the capacity of the governments to implement that plan. FEMA has simply assumed adequate governmental resources exist.

C. FEMA has expressly disclaimed that it is the lead agency in the review of utility offsite emergency plans. The

NRC and not FEMA drafted the key assumptions in Supp 1. In a memorandum from David McLoughlin to Victor J. Stello dated October 16, 1987, McLoughlin stated:

I would like to stress the importance of having written instructions prepared by the Nuclear Regulatory Commission, before beginning the project [the development of utility plan criteria, i.e. Supp 1] which state specifically the assumptions upon which the plan review would be conducted.

In response to this request, Frank Congel, NRC Director of the Division of Radiation Protection, wrote to Richard Krimm, Assistant Associate Director at FEMA on October 21, 1987:

This responds to the understanding reached at the October 15, 1987 meeting between FEMA and NRC, and reflected in Dave McLoughlin's October 16, 1987 memorandum to Victor Stello. We agreed that the NRC would provide written instructions which state specifically the assumptions upon which utility offsite plan reviews would be conducted by FEMA. . . .

As we further agreed, any FEMA findings on the adequacy of utility offsite plans will necessarily include the caveat that FEMA was requested by the NRC to use the above assumptions in evaluating a utility offsite plan.

Finally, in response to comments on Supp 1 filed by the Mass AG on March 3, 1988 asserting that FEMA was abdicating its function as lead agency by permitting the NRC to draft its criteria for it, FEMA stated quite openly:

FEMA leadership responsibilities in regard to offsite planning extends to offsite planning of State and local governments. In the case of offsite planning by utilities, NRC has the lead and FEMA's role is one of cooperating with the NRC.

Thus, it is not appropriate for FEMA to appear before the NRC as an independent expert agency in this proceeding when its findings are the result of evaluative standards established by

the NRC and not by it. The result is an exercise in agency ventriloquism.

D. FEMA has recognized and stated that State and local governmental participation is essential for an adequate level of offsite preparedness to exist. In an internal memorandum commenting on the then-proposed NRC amendments to 10 CFR 50.47, FEMA expert staff comments were explicit on this point:

FEMA has consistently and repeatedly taken the position that such participation [state and local] is essential to a finding of adequacy of offsite preparedness Wherever the changed regulatory philosophy toward preparedness would be applied, the integrated onsite-offsite approach, which has been considered essential to adequate preparedness, would be put in jeopardy. Next in importance to State and local government cooperation in offsite planning and preparedness, is the interaction that must take place between the licensee and offsite authorities and the general public. This interaction is best illustrated in the required joint exercises, which would be waived under the NRC proposal.

FEMA's comments filed with the NRC on the then-proposed rule in April 1987 stated:

From this experience [February 1986 Shoreham exercise], FEMA concludes that the practice of simulating governmental participation has several important consequences. First, the real-time interaction between officials and other emergency responders is not realistically tested. That compromises the quality of the findings which FEMA is able to make about the preparedness of those other responders. Secondly, the preparedness of the state and local governments is not demonstrated in any meaningful sense. As a result, the conclusions that FEMA would be called on to make about the probable response of state and local governments would be based largely on conjecture. FEMA is very reluctant to certify that adequate protective measures can be taken where any finding would be based on such a degree of conjecture. . . . The lack of training which would, in all probability, follow from holding exercises without State and local government participation would also increase the risk to the population of the affected emergency planning zones.

Thus, to the extent that FEMA submits findings in this proceeding certifying that offsite preparedness is adequate, those findings either: contradict the considered position of FEMA based on its experience, or simply reflect the assumptions made by FEMA at the direction of the NRC. In the latter case, FEMA has simply introduced the NRC's "assumptions" to avoid the element of conjecture concerning the probable response of State and local governments and the overall adequacy of off-site planning.

MAG EX 8: The results of the Graded Exercise reveal that there exist fundamental flaws in the Seabrook off-site emergency plans submitted by the State of New Hampshire and the Applicants with respect to planning standards 10 CFR 50.47(b)(6) and (b)(8) and the corresponding requirements of NUREG 0654, Supp 1 at II.F.1.b and c, and 2 and H.10. As a result, exercise objective 4, which requires that the exercise "[d]emonstrate the ability to communicate with all appropriate locations, organizations and field personnel," GM EX-3 at 11, was not met and a finding of reasonable assurance can be made pursuant to 10 CFR 50.47(a) and (c)(1).

Exercise results which individually and/or collectively provide basis for this contention include the following:

A. The ORO EOC relied on commercial telephone lines to conduct most if not all ORO liaison activities, all of the communications between and with contract service providers and their personnel, and communications with schools and other facilities. All of the telephone lines at the Salem Staging Area were commercial telephone lines. Because commercial telephone lines should be assumed to be overloaded shortly after the onset of an accident at Seabrook, the exercise did not establish adequate means of communication.

B. The communication net linking the ORO field personnel with the EOC and with each other was demonstrated to be completely inadequate. Information flows were delayed and accuracy was compromised by the vertical communication chain required by the SPMC. Further details in support of this

contention are set forth at MAG EX 13. ORO field personnel including VANS drivers, traffic guides, transfer point dispatchers, route guides, radiological field teams and others, were using hand-held, battery powered 8 channel radios. Radio communications were demonstrated to be deficient:

1. The EMS radio, the primary communications link with mobile medical support facilities like ambulances and vans, malfunctioned and could transmit but not receive messages. This indicates that ORO had not provided adequate inspection and inventory check for critical emergency communications equipment. No immediately accessible back-up communications system was available at the Staging Area and portable radios had to be procured (from an unidentified source in an unidentified manner) and provided to the one ambulance and three vans involved in the Exercise. (Obviously, had the actual emergency number of ambulances and vans been involved this procurement task would have been measurably greater.) Dispatch of one ambulance was delayed 20 minutes while these portable radios were procured. (However, this does not indicate that it took only 20 minutes to procure them.) The vans were not "delayed" only because they were not ordered out until after the substitute radios were procured. But one van did not establish appropriate radio contact until more than 80 minutes after it had been dispatched. That van was instead communicating on the wrong channel with the Evacuation Support Dispatcher ("ESD") but neither the van nor the ESD notified the appropriate persons (including each other) that the communication linkage was inappropriate. The other two vans

and the ambulance which were using the replacement radios were restricted by the shorter range that these substitute radios had in comparison with the EMS that had malfunctioned.

2. Radio communication between the ESD and traffic guides was sporadically interrupted by breaks in reception. Communications between road crews and transfer points were delayed by other radio traffic. Apparently, road crews could not communicate directly with the ESD and, in one instance, the ESD was informed using a traffic guide's radio that an additional wrecker was necessary.

3. Radio communications between the Staging Area and school evacuation buses was limited to these periods when the buses were within range. Several bus yards were out of that range and these buses could not be reached for hours. The same problem existed in trying to communicate with the buses for day care centers and the transit dependent.

4. Other ORO field personnel had only sporadic communications with the Staging Area because of channel overloading and intermittent reception. When route guides and bus drivers were told to ingest KI at 15:45, 4 of 11 did not ingest KI; 4 of 7 buses for the transit dependent did not receive this transmission.

C. Communications established with the non-participating governments were also demonstrated to be inadequate:

1. No verification methodology was used in communicating with the Governor's Representative (FEMA Control Cell). As a result, the exercise did not demonstrate that ORO could establish communications with the governor.

2. The exercise did not demonstrate that ORO could establish emergency communications with non-participating governments either by means of emergency telephone communications or any back-up system. Instead of attempting to establish communications with emergency personnel in each community, ORO simply contacted the FEMA Control Cell. Thus, the exercise fails to establish that during an actual emergency communications can be established in the absence of access by ORO to the emergency radio frequencies used by the non-participating governments.

3. Significantly, the exercise failed to demonstrate that ORO emergency communications are compatible with those systems used by the non-participating governments. In fact, the Applicants made representations to the Mass AG that Massachusetts police radios and other forms of communication might interfere with ORO communications. Thus, in the event that the governments respond by employing their own personnel and communications equipment, there is no reasonable assurance that any integrated communications will exist or that the ORO system itself will continue to be effective.

D. In further support of this contention, the following contentions and bases are referred to and incorporated by reference: 9, 10, 11, 12, 13.

MAG EX 9: The Exercise revealed a fundamental flaw in the SPMC in that NHY's ORO demonstrated that it did not have the ability to coordinate the formulation and dissemination of accurate information and instructions to the public in a timely fashion after initial alert and notification has occurred, as required by 10 CFR 50.47(b)(5) and (6) and the guidance set forth at NUREG 0654 (Supp 1) at II.E.3-8, and F.1. As a result, exercise Objective 13 was not met and the exercise will not support a finding that adequate protective measures can and will be taken in the event of an emergency.

The following bases both individually and collectively provide support for this contention:

A. The EBS message and the News Releases actually generated during the Exercise were confusing and contained conflicting information. An average member of the public who had heard over the radio or on television the ORO News Releases and EBS messages in sequence would have come away with all kinds of unanswered questions. Confusion would have been generated, for example, regarding who/what ORO was, what had happened to town police and Civil Defense, what the role of the state was, what it meant that ORO was "activated," what it meant to leave the "beach areas" ("How far should I go?" "What if I live there?"). Much confusion would have been generated about the school children, what schools were doing, and what parents should or should not do (as is more specifically described in MAG EX 10.) There was even confusion generated on Day 2 of the Exercise with respect to what people would be let into the EPZ to care for animals. Much confusion was also

generated on both days of the Exercise due to the conflicting nature of the ORO and New Hampshire EBS messages and news releases.

B. The EBS messages and news releases were not accurate in many respects. For example, there was misinformation about the Newburyport schools in ORO EBS #3, as FEMA has noted. Also, there was a serious error in News Release #15, which said that the overturned truck (described in more detail in MAG EX 100) was blocking traffic on southbound I-95.

C. Messages were not timely in many instances. Events were not reported at the Media Center until long after they had occurred, as was the case with the overturned lumber truck, which was not reported until long after it had begun blocking traffic. Messages and information were not forwarded promptly from the EOC to the Media Center and the Joint Telephone Information Center, as can be seen from the times noted on many of the player generated material. See also FEMA report at 217. In addition, and perhaps most serious, ORO generally lagged behind New Hampshire in issuing PARs to the public, as can be seen clearly in the time lines contained in the FEMA report. On Day 2, for example, it took a very long time after the State of New Hampshire for ORO to get an EBS message out regarding farmers re-entering the EPZ to care for livestock.

D. The timing and content of ORO's public information was not coordinated in any systematic way with the public information being released by New Hampshire. This would have

led to further confusion and mistrust. Comparison of the messages released at about the same time by NH and ORO reveal numerous differences that needed to be resolved and were not. The process for coordinating the information released was shown to be ad hoc and therefore inadequate.

MAG EX. 10: The Exercise revealed a fundamental flaw in the SPMC in that NHY's ORO demonstrated that it did not have the ability and resources necessary to implement appropriate protective actions for school and day care children within the plume EPZ, as required by 10 CFR § 50.57(b)(10) and the guidance set forth in NUREG-0654, Rev. 1, Supp. 1, §§ J.9 and J.10.g. Thus, ORO failed to satisfy Exercise Objective 19, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 CFR § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. Over the course of Day 1 of the Exercise, ORO demonstrated that it was unable to notify and exchange information with all the schools and day care centers in a timely fashion to keep pace with the changing developments of the emergency and to implement timely protective actions. Except in one instance (see B, below), the hundreds of phone calls made to schools and day care centers during the exercise were made to the FEMA Control Cell. FEMA Control Cell personnel received these phone calls, listened to what the School Liaisons had to say, did not ask to have information repeated, infrequently asked a single question or two, and promptly gave any information sought by the School Liaisons. This allowed the Liaisons to make the

calls to the assigned schools at an unrealistically rapid pace that could not be achieved in a real emergency when real school officials would ask a great many more questions than FEMA Controllers did and their responses to the Liaisons questions would not be as readily forthcoming or as brief. In a real emergency, each of these calls would take considerably longer. Moreover, during the Exercise, the phone numbers used by the Liaisons to call the FEMA Control Cell were rarely busy. During a real emergency it must realistically be expected that many dozens of phone calls from concerned parents will flood phone lines to the schools making it probable that School Liaisons will have to spend considerable time making call-backs. Nevertheless, even with the cooperative FEMA Control Cell and the absence of busy school phone lines during the Exercise, ORO's School Liaisons were not able to make their calls and exchange information with schools and day care centers at a rapid enough rate to keep schools adequately informed in a timely fashion of changing developments and PARs. The Exercise thus demonstrated that each School Liaison has too many calls to make, and too much information to exchange, to keep all schools adequately informed in a timely fashion in a real emergency.

B. One real school in the Massachusetts portion of the EPZ actually was to be contacted on the Day 1 of the exercise and a real, rather than a simulated, exchange of information was to occur. When the Amesbury School Liaison first called this

school at 11:17 a.m. to notify it of the Alert and exchange information, the phone went unanswered. He did not call back until 1:50 p.m. when he was in the process of making his second round of calls to the Amesbury schools. Again he received no answer. No further attempts were made to call the school; no call was made to the phone company or elsewhere to confirm the accuracy of the phone number; and no route guide was dispatched to see what the problem was at the school. In the event of a real emergency, ORO needs to anticipate both that some school officials will be away from their phones momentarily and that school phones generally will often be busy. In either case call-backs need to be made promptly to ensure that some schools do not get bypassed. During the Exercise, ORO demonstrated that it does not have a system in place for ensuring that call-backs can or will be made promptly or, where schools which are expected to be in session have phones which go unanswered or are repeatedly busy, that timely efforts can or will be made to contact the schools using alternative means.

C. The ORO demonstrated that it could not make a school PAR and communicate it to the schools in a timely fashion, thereby effectively precluding implementation of the chosen protective actions for a significant number of school children. While New Hampshire was able to make a protective action decision to have children "stay in school" at 11:52 a.m. (immediately after the SAE was declared), ORO's

decisionmakers did not have a serious discussion focussing on the school PARs until 1:25 p.m., just minutes before the General Emergency was declared. In that discussion at 1:25 the ORO Director recognized the need to quickly come to a decision on a PAR for the schools, because he knew the schools had normal closing times which were generally between 2:15 and 3:00 p.m. Yet he decided to postpone making a PAR decision at 1:25. At 1:32 a General Alert diverted ORO's focus on the schools. Finally, at about 2:05 p.m., a decision on a school PAR was made: hold the children in the schools rather than releasing them at the normal times. By 2:05 p.m., however, ORO had left itself too little time to notify the Merrimac schools of this PAR before it released its students at 2:15. ORO's own actions and delays thereby precluded it from implementing this PAR for the Merrimac schools. So the PAR was issued only to the schools in the remaining five communities. But, again, ORO could not act quickly enough and notification was delivered too late to four (4) of the schools in Newburyport to prevent them from releasing their students at the normal time. Thus, because of ORO's delays in making a school PAR and in communicating it to the schools, ORO was unable to implement its recommended PAR in all of Merrimac and most of Newburyport.

D. Thereafter, ORO's efforts to communicate its PAR to the schools and parents, were uncoordinated, confusing, conflicting, and likely would have resulted in chaos at the schools and day care centers. As a result, there is no

reasonable assurance that ORO's recommended protective actions could have been implemented. First, ORO's leadership failed to explain the specifics and the logic of the "hold the students" decision to its own staff including the School Coordinator, the School Liaisons, and ORO's personnel in the Media Center. At 2:15, the School Coordinator told all the School Liaisons (except the one for Merrimac) to call their respective schools (including day care centers) and tell them "that the children are to stay at school until parents pick them up or we evacuate them." However, School Liaisons were also instructed to find out whether the schools wished to retain and use their own buses or use ORO buses later on. Thus, when the School Liaisons called the schools from about 2:15 to 3:15 p.m. after the declaration of the General Emergency, the message given about PARs was confusing and lacking in logic. No instructions were given to school administrators about how to implement or whether to implement sheltering for the students. Indeed, it was not even clear whether the schools were evacuating, sheltering, or sheltering now and evacuating later. If schools indicated that they could not retain their buses, Liaisons were unable to estimate when ORO buses might be able to get to them.

Difficulties in implementing ORO's school PAR would have resulted from these confused, illogical communications to the schools and day care centers. For example, when the Amesbury, School Liaison called the Horace Mann School at 2:54 p.m. and

found that the school was then in the process of loading students onto its buses, the Liaison told school officials there to unload the buses and get the children back into the school "Due to the release going out to sea." This, of course, makes no sense. It also was not true, for at that time the wind had begun to shift around and to come from the north, blowing the plume toward Massachusetts. If school officials sought out a weather forecast, they would have learned that the wind was soon going to swing around and blow from the east, blowing the plume right at Amesbury. They undoubtedly would have also learned that the Town of Amesbury had been recommended to evacuate. In this situation, in a real emergency, there is no reasonable assurance that Amesbury school officials would have heeded the School Liaison's advice to hold the students.

To make matters worse, conflicting messages were then being given regarding whether parents should or could pick up their children at the schools and what was happening to the students. The School Liaisons (except for Merrimac, which sent its students home) were instructed to tell the schools that the children should be kept in school until parents pick them up or ORO evacuates them. Meanwhile, ORO issued an EBS message (ORO EBS #3) at about 2:20 p.m. which advised parents:

- a. that a radioactive release had occurred;

b. that immediate evacuation is recommended for people in Salisbury and Amesbury and that people in Newburyport, Newbury, West Newbury, and Merrimac was safer if they sheltered in place immediately;

c. that "[a]ll schools within the communities directed to evacuate are being evacuated to the designated Reception Centers for the community in which they are located. Parents should not drive to school to meet their children since schools are now being evacuated and children are being taken safely by bus directly to their Reception Centers. School children will then be sent to The Host Facility in A [sic] where they may be picked up";

d. that schools "in the communities advised to shelter are taking similar sheltering actions. Officials have instructions for protecting the children or other persons in their care until sheltering is no longer necessary. Parents and relatives are advised not to call the schools or other institutions, nor to drive to the schools to attempt to pick up their children. Community safety will be better protected if the schools are permitted to conduct sheltering activities over the next several hours"; and

e. that "[p]arents with children attending school within Salisbury, Amesbury, Newbury, West Newbury and Newburyport are advised that their children are currently being safely maintained at school, where they will be kept until it is determined that they can be safely moved."

This message was so confusing, contradictory, and misleading that it would have torpedoed any effective implementation of ORO's PAR for the schools and day care centers. Some, but not all, of the problems with this message are as follows:

- * While ORO's School Liaisons were telling schools that parents can pick up students, this message tells parents to stay away and not even call the schools.

- * It instructs the general population of Amesbury and Salisbury to evacuate immediately while telling parents in these towns both (a) that Amesbury school children "are being" evacuated and (b) later in the message, that these same children are being "kept" at school "until it is determined that they can be safely moved."

- * It instructs the general population in Newburyport, Newbury, and West Newbury to shelter in place immediately while telling parents in these towns that schools are taking similar sheltering actions (a) "over the next several hours" and (b) later on in the message, "until it is determined that they can be safely moved." Besides being confusing, this message is erroneous in that four of the schools in Newburyport were releasing students and sending them home.

- * It instructs the general population in Merrimac to shelter in place immediately but gives parents in Merrimac no information whatsoever about what is happening to their children.

* For students who are being or may be evacuated, it failed to say specifically where parents may go to meet them and pick them up and when this can occur.

Despite the precaution in the message not to call or drive to the schools, this EBS message given at about 2:20 p.m. is so confusing and inadequate that in each of the six Massachusetts EPZ communities, parents would not have had sufficient information about what actually was happening to their children, and most would either have attempted to call or drive to the schools. Parents' calls would undoubtedly have flooded the schools shortly after 2:20, just when the School Liaisons were calling to inform the schools directly of the PAR to "hold" the students and inquire of their need for buses. The likely result would have been that ORO would have had great difficulty getting phone calls through to each of the schools to inform them of the PARs. Thus implementation of PARs for schools was likely to have been frustrated due to the confusion generated by ORO's 2:20 p.m. EBS message. There is substantial uncertainty regarding what would have happened next. School officials would likely have hesitated, not sure what to do, causing parents, teachers, and the regular bus drivers alike to each consider taking independent, ad hoc, uncoordinated action as each group saw fit. ORO's attempt to resolve the confusion it had created over the school children came belatedly in the form of an EBS message at 4:03 p.m., almost 1 3/4 hours after

the first message. It, too, was confusing and came too late to have had any significant impact in resolving the confusion the first message would have created. These Exercise results demonstrate that ORO is unable to coordinate the timing and content of its messages to the schools (through calls from Liaisons) and parents (using the EBS system) to ensure that PAR implementation is not frustrated by general confusion and chaotic, independent actions.

E. Events during the Exercise demonstrated that, given the absence of school-specific emergency plans, there is no reasonable assurance that school officials will take the appropriate steps to implement proper sheltering techniques in a timely fashion when it becomes necessary to do so. ORO EBS #3 inaccurately stated that school officials "have instruction for protecting the children or other persons in their care until sheltering is no longer necessary." This simply is not the case. While it is true that some EPZ schools were sent a "generic" school plan which contained some very general instructions for sheltering that were not specific to any particular school, the schools have not kept this generic plan. The schools also have no plans or instructions of their own for implementing sheltering, and school officials are not knowledgeable in this area. The Exercise further demonstrated that ORO does not have the capability to compensate for the lack of existing school radiological plans or information. School Liaisons demonstrated that in an accident like the one

simulated here, which was hardly the fastest developing accident within the planning basis of NUREG-0654 advancing from an Alert to a release of radiation in more than four (4) hours, they were pressed beyond their abilities just to notify schools of developments and PARs and briefly answer a quick question or two. They were too busy with these basic functions to take the time to assess whether in fact schools know how to implement proper sheltering techniques and, if not, to offer detailed, adequate advice. Thus, if the Exercise had been a real emergency, the schools would not have been able to implement proper sheltering techniques while waiting for ORO buses to arrive. Since the simulated plume passed over many of the Massachusetts schools before the buses arrived, this failing would have increased dosages to school children.

F. If any conclusions are to be drawn from the extremely limited scope of the Exercise regarding ORO's buses for schools, they are: (1) that ORO cannot estimate accurately the arrival time of its buses at any given school and (2) that there is no reasonable assurance that ORO's fleet of hired buses can get to the schools in a timely fashion. Although the SPMC claims to have agreements with private bus companies to provide 534 buses in a radiological emergency at Seabrook, and that 226 buses would be needed to evacuate the schools, for this Exercise only four (4) buses were tested by being dispatched and driving routes to schools. (Three other buses

were dispatched on various routes to day care centers, for which the SPMC specifies only 19 buses may be needed.) Normal mobilization times were not even tested as all seven buses and drivers had been pre-arranged to be ready to go on the day of the Exercise. The extent of play was limited to dispatching and driving the four school buses to four different schools and then to reception centers in the "real" time sequence. The first Exercise problem ORO encountered after dispatching the buses was to generate an estimated time of arrival ("ETA") of each bus for each target school. School officials and the public would demand these ETAs during an emergency, and the FEMA Control Cell sought them here from the School Liaisons. During the Exercise, ORO at first delayed but then finally offered a set of ETAs for buses for each town, but these ETAs were not released publicly in a timely fashion. Events during the Exercise proved these ETAs to be significantly optimistic, and they had to be changed. If the Exercise had been a real emergency and ORO had dealt with the ETAs in this same fashion, it would have created further difficulty in implementing a safe and coordinated evacuation of the schools, because both schools and parents would have lost confidence in ORO's ability to do what it promised it would do, *i.e.*, evacuate the students in a timely fashion. This would have spurred parents and schools to take *ad hoc*, independent, uncoordinated action regarding the students.

The second bus-related problem ORO encountered was to have the buses drive the prescribed routes on their ORO maps, locate the target schools, and do so in a timely fashion. Although only seven buses were tested (four on routes to schools; three on routes to day care centers), there were a significant number of mistakes made. Even though each ORO bus had a Route Guide on board to assist the driver in following routes, in several instances the drivers were unable to follow the prescribed routes. In one case, a bus ended up on a dead end street in such a position that it took 20 minutes to get out. In some cases the Route Guides made no effort to request that the driver follow the prescribed routes. In other instances, Route Guides disregarded their SPMC prescribed routes and improvised other routes. The buses for day care centers actually had difficulty locating several day care centers, and one center was actually missing from the SPMC map. The upshot of all these difficulties is that: first, ORO cannot accurately estimate the bus ETAs as they must to ensure that parents and schools will cooperate with evacuation plans, and, second, based on this very limited sample of buses and the number of routing difficulties encountered, there is no reasonable assurance that buses for any given school can and will arrive in a timely fashion to adequately protect the school children. Here, during the Exercise, because the buses were not able to arrive in a timely fashion, a large number of school children were still waiting in schools for the arrival of the buses when the plume swept over them.

At the root of these problems is the fact that: (a) ORO bus drivers and Route Guides brought in from other towns just are not familiar enough with this area and (b) the area is so lacking in street signs that difficulties and delays of the sort displayed during the Exercise will be inevitable.

G. All of the above-described Exercise problems, mis-steps, delays, and confused and erroneous communications preclude a finding that there is reasonable assurance that teachers and day care personnel in the six Massachusetts EPZ communities can be counted on to stay in schools with the remaining children until buses arrive and then to board and ride the buses with the students. If this Exercise had been a real emergency, and ORO had performed just as it did during the Exercise, providing the information to the schools through the School liaisons, EBS messages, and the media that had been provided during the Exercise, there is no reasonable assurance that there would have been sufficient teachers left in the schools to accompany the students on the buses.

MAG EX 11: The Exercise revealed a fundamental flaw in the SPMC in that the NHY ORO demonstrated that it did not have the ability to make appropriate protective action decisions, based on projected or actual dosage, EPA PAG's, availability of adequate shelter, evacuation time estimates, and other relevant factors, as required by 10 CFR §§ 50.47(b)(10) and the guidance set forth in NUREG-0654, Rev. 1, Supp. 1, § J.10.m. Thus, ORO failed to satisfy Exercise Objective 11, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of an emergency at Seabrook, as required by 10 CFR § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. During the Exercise NHY ORO personnel did not make their own independent assessments, evaluations, judgments or determinations regarding protective action recommendations but merely acted as a conduit, accepting the protective action recommendations received from the Seabrook Station EOF without any meaningful scrutiny being applied to assess their adequacy, and then simply seeking approval to implement them from the (simulated) Massachusetts Governor's representative. By acting in this fashion, which is contrary to the SPMC's procedures for making protective action decisions at Plan § 3.4.2 and the corresponding Procedures sections, the ORO failed to demonstrate that it has the technical understanding, judgment,

and ability to assess and weigh all factors relevant to a protective action recommendation and to make appropriate recommendations in a timely fashion on its own.

B. Virtually every one of the protective actions recommended by the NHY's ORO were not appropriate, in light of all relevant circumstances at the time. Other protective action choices were available which were more appropriate and could have achieved significantly greater dose reduction. For example:

(1) Upon the declaration of the Alert at Seabrook Station, ORO demonstrated a fundamental flaw in the SPMC when, after New Hampshire acted to close Hampton and Seabrook beaches, and with a wind blowing from west to east that was expected to shift around to come from the north and later on from the east, NHY's ORO refused to consider a precautionary beach closing of the Salisbury beaches and actively discouraged the (simulated) Governor's representative when he considered making this recommendation. This refusal to consider a beach closing at the Alert turned out to be a mistake, for when the wind later shifted as expected, and the plant began releasing a radioactive plume, the plume drifted across the Salisbury beach areas long before all persons there evacuated.

An earlier beach closing at the Alert stage, rather than at the Site Area Emergency, would have been the more appropriate PAR for another reason as well. Considerations of the "shadow"

beach evacuation and the traffic conditions which it will cause in Massachusetts if New Hampshire alone were to close its beaches due to problems at Seabrook, suggest strongly that a beach closing in New Hampshire must be carefully coordinated with and imposed at the same time as a beach closing in Massachusetts. Because this was not done, and New Hampshire closed its beaches well before those in Massachusetts were closed, it would have been impossible later on for the ORO to control the traffic streaming through Massachusetts from both the Massachusetts and New Hampshire beach areas.

(2) After being notified of the SAE at 11:51 a.m., ORO finally made a protective action recommendation to close the beaches but inappropriately failed to make any early PAR whatsoever for the schools, as New Hampshire did. An early school closing, for example, would have been an appropriate PAR at this stage, at least for those schools with buses available, given all the circumstances known at that time. This PAR would have ensured that students would not have been hit with the radioactive plume that resulted as a direct result of ORO's delayed-school-closing PAR (see (4), below).

(3) After the General Emergency was declared at 1:30 p.m., with a release of radiation minutes thereafter, ORO recommended that Amesbury and Salisbury be evacuated and that the four remaining Massachusetts EPZ communities be sheltered. This PAR, too, was inappropriate. If all relevant factors had

been considered and judgment and common sense applied, Newburyport, with its sizeable population, also should have been given a recommendation to evacuate. The SPMC, however, locks ORO into making PARs for Newburyport only when the same PAR is made for Newbury, West Newbury, and Merrimac. The Exercise demonstrates a fundamental need for greater flexibility in shaping appropriate PARs for the Massachusetts communities.

(4) During the General Emergency, with the wind still blowing the plume out to sea but expected to shift around and blow toward Massachusetts, ORO inexplicably made a PAR to hold the school children in school past the normal closing times in all towns except Merrimac. This decision to hold the school children was not only an inappropriate PAR; it was a disastrous one. Given ORO's knowledge of the plant conditions and weather, and all the uncertainties facing ORO at that time, including uncertainties regarding the lack of emergency plans for each school, uncertainties regarding whether the buses relied on by the schools would be available after normal departure times, and the uncertainties about how long it would take ORO's buses to arrive at the schools if those buses were to be used, the appropriate protective action at that time was to close the schools at normal closing times and use the schools' own buses to get the children home as soon as possible. The scope of the disaster created by ORO's

inappropriate PAR to delay closing the schools was made apparent when Seabrook's radioactive plume swept over many schools before ORO's buses arrived late that afternoon or early in the evening to pick up the students. The inappropriate PAR to hold the school children may have actually maximized their dose consequences, not minimized them.

(5) ORO's PAR at approximately 4:00 p.m. that afternoon was also inappropriate. At that point ORO recommended that the four (4) remaining towns (Newburyport, Newbury, West Newbury, and Merrimac) evacuate. Prior to this time residents in these towns had been advised to shelter. Given the conditions of the release, the weather forecasts, the ETES, the uncertainties about how long it would take to get ORO's buses into the towns, and other relevant factors, this PAR should have been given much sooner. As a result, many residents of these communities who could have evacuated prior to the arrival of the plume were unable to do so.

(6) When a 92-year-old bedridden person who could not be evacuated contacted ORO regarding what to do, he was told: "Keep all your doors and windows closed." This individual PAR was totally inappropriate, given the person's physical condition. Assistance should have been offered: first in the form of an ambulance and, if that was refused, then by sending help to implement proper sheltering measures for him.

(7) Traffic heading from Massachusetts to Maine on I-95 was provided with a suggested by-pass route around the EPZ which was inappropriate because (a) the route suggested consisted of a series of highways which do not connect and, if followed, would send travelers right into the EPZ at Portsmouth; and (b) it purported to direct people to Kittery, Maine, to pick up I-95, but Kittery, a border town just across the Piscataqua River from Portsmouth, is much too close to the EPZ to be included on a safe by-pass route. Indeed, in the evening of Day 1 of the Exercise the plume, with still dangerous concentrations of radioactive material, blew directly over Portsmouth into Kittery. Before that happened, when the wind began blowing the plume northward, ORO should have recognized that use of Kittery on a by-pass route was inappropriate. But, ORO failed to change its by-pass recommendation and directed unwary travelers to drive right into harms way.

C. During the Exercise ORO demonstrated that it was unable to make appropriate PARs during the summer beach season because it had no reliable method for determining the size of the Massachusetts beach-area population. ORO's method of checking on the size of the Massachusetts beach population (as was done at @ 11:30 a.m.) was to dispatch a helicopter to fly over and assess the size of the population on the beaches. There are numerous problems with this approach, including:

1. Coastal fog was reported on the Weather Status Board. In such circumstances, a helicopter probably would not fly, and even if it did risk flying, it probably would not see all portions of the beach area; so it would be unable to make the population assessment.

2. Even if the helicopter pilot flew over and observed all the beaches, he has no reliable method for quantitatively assessing the actual size of the total population in the beach areas. Yet, that is what protective action decision-makers need to know, not the number of people out on the sand or in the water. While a pilot may be able to fly over and guess roughly how many people are on a given stretch of beach, he cannot determine how many people are inside cottages, motels, and other buildings. He could not tell ORO whether the beach areas are at 50% of capacity or 85% of capacity, a distinction one needs to know when assessing how long the ETEs are for the beach areas that day.

D. The process of deliberation which finally resulted in the selection of a PAR for school children was ad hoc and impromptu and not guided by any pre-set procedures, plans, or criteria, including institution-by-institution ETEs. As a result the choice that was finally made was not made in a timely fashion, failed to take into account many relevant factors, and turned out to be a dose-increasing rather than a dose-reducing measure for the children. Thus, the exercise

reveals that the SPMC's plans for selecting an appropriate PAR for schools and day care centers is fundamentally flawed in that the plans fail to document an appropriate decision-making process and criteria for selecting the most appropriate PAR for school children.

MAG EX 12: During the Exercise, NHY's ORO, using the procedures set forth in the SPMC, demonstrated that it does not have the administrative, as well as the physical, means to provide early notification and clear instruction to the populace within the Massachusetts portion of the plume exposure pathway EPZ, as required by 10 CFR § 50.47(b)(5); 10 CFR Part 50, App. E. IV. D; NUREG 0654, Rev. 1, Supp. 1, §§ II.E E.6, E.7, and E.8. Thus, ORO failed to satisfy Exercise Objective 12, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 CFR § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. The only exercise objective for the initial alert and notification system -- Objective 12 -- was not met. Objective 12 required that ORO "[d]emonstrate the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate state and/or local official(s)." In fact, in each of the three (3) instances on Day 1 of the Exercise when ORO simulated the sounding of the alerting sirens, it failed to begin dissemination of its instructional EBS message within 15 minutes of a decision by the simulated representative of the Governor of Massachusetts. On the first such occasion, after a

Site Area Emergency was declared (at approximately 11:46), representatives from ORO contacted a simulated Massachusetts official (the "Governor's representative A") at approximately 12:05, and by no later than 12:07 they had received his concurrence that an EBS message should be issued which recommended a closing of the Massachusetts beaches. Thereafter, further discussion ensued with "A" regarding the transfer of legal authority to ORO and the exact wording of the EBS message. A simulated sounding of the sirens was initiated at approximately 12:22, and a simulated broadcast of the EBS message began no sooner than 12:25. Thus, the simulated dissemination of ORO's first EBS message did not begin within 15 minutes of the decision by "A" to issue such a message.

After the General Emergency was declared, the ORO's second EBS message took longer to begin disseminating than did this first message. After the General Emergency was declared (at approximately 13:30), representatives from the ORO again contacted the Massachusetts Governor's representative "A", reaching him at approximately 13:47. He was immediately informed of the General Emergency and the ORO protective action recommendations, and after 2-3 minutes, at a point prior to 13:50, "A" made his decision to proceed to issue those PARs to the public. Thereafter, however, a discussion ensued with "A" regarding the exact wording of the EBS message. A simulated sounding of the sirens was finally initiated at approximately

14:17, and a simulated broadcast of the EBS message began no sooner than 14:20. This was at least 50 minutes after the declaration of a General Emergency (with a release of radiation) and at least 30 minutes after a decision by "A" to issue such a message.

ORO's third and last use of the alert and notification system during Day 1 of the Exercise occurred later that afternoon, and again the 15-minute criteria set forth in Exercise Objective 1 was not met. The Governor's representative "A" agreed to an evacuation of the four remaining Massachusetts towns prior to 15:48; a simulated sounding of the sirens was initiated at approximately 15:56; and a simulated broadcast of the EBS message began no sooner than 16:03.

B. Even if ORO is found to have met exercise Objective 12, i.e., it is found to have demonstrated that it could "begin" dissemination of an instructional EBS message within 15 minutes of a governmental decision, it certainly did not demonstrate that it could "essentially complete" the initial notification of the public within the plume exposure pathway EP2 within about 15 minutes." 10 CFR Part 50, App. E. IV. D. 3 (emphasis supplied). This is the design objective set forth in the regulations. To meet this, the initial EBS message broadcast after each sounding of the sirens on Day 1 of the Exercise had to have been read through once -- at least to the point in each

message where the information offered began to be repeated. The first of the three EBS messages described above in Basis A would have taken at least two (2) minutes to broadcast, and the second and third of those messages would have taken at least five (5) minutes each to broadcast. This means that in each instance, the time it took from the moment the decision to alert the public was made to the essential completion of the initial EBS notification significantly exceeded 15 minutes. In its Guidance Memorandum (AN-1) regarding alert and notification systems. FEMA Action to Qualify Alert and Notification Systems Against NUREG-0654/FEMA-REP-1 and FEMA-REP-10" FEMA states that a:

[f]ailure by offsite authorities to complete the primary alert and notification process within the time frames stipulated in NUREG-0654/FEMA-REP-1, Appendix 3 and FEMA-REP-10 should automatically result in a "deficiency" citation.

FEMA Guidance Memorandum AN-3, p. 1-6 (emphasis deleted).

C. The times it took the VANS drivers to drive during the Exercise from their staging areas to their acoustic locations demonstrated that in a fast-breaking accident which moved quickly from an Alert to a Site Area Emergency (which under the SPMC automatically warrants a beach closing), most of the sirens could not be sounded promptly enough to alert the beach area populace and still have time to complete a broadcast of an EBS notification within the prescribed 15-minute period. Travel times for at least the following VANS routes were excessive: VL-1, VL-3, VL-8, VL-9, VL-10, VL-11, VL-12, VL-13 and VL-16S.

D. The total length of time it took during the Exercise from the declaration of the SAE and the GE to the completion of the initial notification of the protective actions recommended in direct response to each of these ECLs was excessive and, if the Exercise had been a real emergency, would have resulted in the public being placed at significantly greater risk than if the entire process leading to public notification had been accomplished reasonably promptly. Thus, the Exercise demonstrated that there is no reasonable assurance that the public will be notified in a timely enough fashion to take adequate protective measures. Too many physical and administrative steps exist in ORO's public alert and notification process for it to be completed in a timely manner.

MAG EX 13. The Exercise revealed that there is no reasonable assurance that NHY's ORO has the organizational ability to control evacuation traffic flow and to control access to evacuated and sheltered areas, as required by 10 CFR § 50.47(b)(10) and the guidance set forth in NUREG-0654, Rev. 1, Supp. 1, §§ J.10.j. and J.10.k. Thus, the ORO failed to satisfy Objective 19, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 CFR § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. During the exercise NHY's ORO failed to dispatch and deploy its Traffic Guides in a timely enough fashion after the beach closings in New Hampshire and Massachusetts for them to have arrived at key beach-road Traffic Control Points before the vehicles streaming from the beach areas would have filled up both lanes of Routes 286 and 1A in Salisbury and the Plum Island Turnpike. As a result, if the Exercise had been a real mid-day, summertime emergency, there is no reasonable assurance that ORO would have been able to implement its traffic control strategies and actually control traffic at the time the Traffic Guides arrived at their posts.

The basic facts are as follows: At about 11:00 a.m. New Hampshire sounded its beach sirens and announced that in

response to an Alert condition at Seabrook Station the Governor had ordered the closing of the state beaches in Seabrook and Hampton. This announcement would undoubtedly have generated a heavy flow of traffic out Route 286 into Salisbury, Massachusetts, and down Route 1A into Salisbury Beach (due to the delays in establishing the New Hampshire Traffic Control Point at the state line and also due to a "shadow" beach closing evacuation in Salisbury prompted by the closing of the New Hampshire beaches). Thereafter, at 12:22 p.m. ORO sounded its sirens and announced that in response to the declaration of Site Area Emergency the Governor was recommending that persons in the beach and park areas from Salisbury to the southern tip of Plum Island leave those areas immediately. This would have very quickly added to the traffic flowing out of Salisbury on Routes 286 and 1A, and it would have created a heavy flow of westbound traffic on the Plum Island Turnpike. Not until almost one hour later at 1:15 p.m., however, did the ORO dispatch any Traffic Guides to these areas. Thus, ORO Traffic Guides could not have arrived at the key TCPs for these three beach traffic egress routes until approximately 1:45 at the earliest -- almost three hours after New Hampshire had closed its beaches and almost 1 1/2 hours after people in the Massachusetts beach areas were directed to evacuate. By this time in the summer, just a few days before the 4th of July weekend, the seasonal, monthly, and weekly beach transient

population is always very high; so even though the Exercise drafters may have postulated a small number of people on the sand and in the water on the day of the Exercise, there is no doubt but that there were tens of thousands of people in the beach areas at mid-day on the day of the Exercise and that cars coming from the beach areas would have formed lengthy queues on Route 286, Route 1A, and the Plum Island Turnpike long before ORO could have implemented any traffic control whatsoever. The combination of any kind of an emergency at Seabrook Station, long traffic queues, and no traffic control is a prescription for traffic disorderliness, and under these circumstances it is likely that prior to the arrival of ORO's traffic control personnel, vehicles would have filled up both lanes of traffic (inbound as well as outbound) on the only three roads providing egress off the Massachusetts beaches. Furthermore, once two-way flow had been lost, it is highly unlikely that the Traffic Guides, dressed as they were during the Exercise in plain clothes and driving private, unmarked cars, would be able even to drive into the beach areas on these roads to reach their posts, let alone to re-channel the traffic back into one lane by setting up traffic controls that evacuees would follow. Even state and local police would have great difficulty doing so after both lanes of these roads had been converted to outbound flow. Thus, the Exercise reveals a fundamental flaw in the SPMC in that there is no mechanism in place to ensure that traffic controls can and will be implemented prior to the loss of two-way flow on the key egress roads from the beaches.

B. Further indication that there is no reasonable assurance that the NHY ORO has the organizational ability to control evacuation traffic flow came during the Exercise when the ORO issued an EBS message at approximately 2:20 p.m., recommending the immediate evacuation of Salisbury and Amesbury without obtaining either (a) a grant of legal authority to direct traffic and implement their traffic management plan or (b) an assurance from state and/or local officials that they would direct traffic in accordance with the SPMC's traffic management plan. It was not until approximately 3:17 p.m., an hour after the EBS message went out, that ORO sought and obtained legal authority to direct traffic in Massachusetts. No one was assigned to control the evacuation traffic prior to this point. By 3:19 p.m., in the absence of traffic controls, traffic disorderliness throughout the EPZ would have been widespread and intractable, and there is no reasonable assurance that efforts to implement the SPMC's traffic and access control strategies at that point would have been successful, especially by non-uniformed ORO Traffic Guides, who would possess neither the traffic handling skill nor garner the respect normally afforded by motorists to uniformed state and local police officers directing traffic. That ORO sought to obtain legal authority to alert and notify the public to evacuate towns without having obtained either (a) a grant of legal authority to ORO to direct traffic or (b) an assurance from state and/or local officials that they would direct traffic, indicates a fundamental flaw in the SPMC's plans for

traffic control, a fundamental lack of common sense by ORO's leadership, a fundamental flaw in ORO's training program, and a fundamental flaw in the SPMC's legal authority delegation process.

C. While the SPMC itself is ambiguous on this point, the observation of the Exercise and the NHY Controller materials for the Exercise revealed that ORO's Traffic Guides at Access Control Points ("ACPs") will actually attempt to stop traffic seeking to enter the EPZ as a step in the process of seeking to "discourage" all but returning commuters and appropriate emergency responders from entering the EPZ during an evacuation. The Exercise also revealed that NHY's ORO intends to activate ACPs during the first few hours of the evacuation process, even on normal workdays when thousands of EPZ residents would be at work outside the EPZ. In situations like this, where ACPs are activated within the first few hours of an evacuation and incoming traffic is actually stopped in the process, extremely lengthy queues will form on most key routes used by returning commuters, and those commuters will experience extremely frustrating and significant delays as they attempt to rush home to gather household members and evacuate with them. As a result, not only will the evacuation process be unnecessarily lengthened significantly, the evacuation time estimates ("ETEs") be rendered inaccurate by many hours, and entry into the EPZ by emergency responders be delayed long enough to impact adversely on public health and safety, but high driver frustration levels will result in such widespread

traffic disorderliness at ACPs that the Traffic Guides will not be able to control traffic, either inbound or outbound, especially if, as is the case with ORO Traffic Guides, they are not uniformed in the fashion of state and local police officers in Massachusetts and are equipped only with the kind of traffic cones Traffic Guides displayed during the Exercise. These cones are not large enough to deter highly frustrated drivers from running over them.

D. Further indication that there is no reasonable assurance that NHY's ORO has the organizational ability to control traffic flow came during the Exercise when ORO completely mishandled the one (simulated) road impediment which blocked evacuating traffic during the Exercise. At 4:45 p.m. on Day 1 of the Exercise a Controller gave an ORO Traffic Guide at TCP WN-03 (the I-95 interchange with Scotland Road/South Street) a controller message that read as follows:

A major accident involving a truckload of lumber has just occurred. The truck which had been heading north on I-95 was making the turn onto the I-95 South on-ramp when the load shifted. The truck rolled onto its right side and the load spilled. There are now 2x4s, 1x8s and sheet rock panels strewn all over the roadway. The ramp is completely blocked.

There were no injuries, the driver is only shaken up.

In blocking the I-95 South on-ramp at this location, three separate lines of backed-up traffic would have been created:

1. Evacuation traffic from Newburyport and Newbury heading southwest on Scotland Road;
2. Evacuation traffic from West Newbury heading east on South Street; and
3. Northbound traffic on I-95 which was being turned around at this point.

The tasks confronting the ORO in response to this accident included at least the following: (a) to report the event up ORO's chain of command in a timely and accurate fashion; (b) to coordinate the dispatch of the necessary assistance to remove the road impediment; (c) to implement an effective temporary detour for traffic blocked at the scene; and (d) to devise, implement, and notify the public in a timely fashion of an evacuation re-route for evacuees who might otherwise seek to use the blocked route. Time was of the essence here, because the radioactive plume was then only a short distance away, heading towards the blockage.

ORO's actions on each of these tasks failed miserably to demonstrate an adequate capability to deal with road impediments in a sensible, timely, and coordinated fashion. First, the ORO was unable to communicate and report the accident up the ORO chain of command in a timely and accurate fashion. According to the SPMC, Traffic Guides are to report road impediments to the Evacuation Support Dispatcher, who

reports the impediment to the Staging Area Leader, who notifies the Transfer Point Dispatcher to dispatch the appropriate road crew (wrecker) to remove the impediment. If an evacuation route is blocked, the Staging Area Leader needs to advise the ORO EOC promptly so that he can notify the public and assist in preparing a re-route. After being given to the Traffic Guide, however, the message took a full hour to reach the Staging Area leader (at approximately 5:50 p.m.), and by then the message had begun to evolve. Some details were missing; others were distorted. Inexplicably, a wrecker was not dispatched until 6:50, a full two hours after the simulated accident occurred. Meanwhile, the ORO EOC was not notified of the blockage until nearly 6 p.m., and the message it thought it heard was that the lumber truck had overturned and was blocking traffic on I-95 southbound. It then took the EOC staff at least a full half hour to study a wall map and devise a re-routing strategy, not for all three separate lines of blocked traffic, but for only the evacuees leaving Newburyport and Newbury who would have used Scotland Road. The re-route plan they came up with uses a road, Highfield Road, which is not adequate for use as an evacuation route because it is only one and a half lanes wide, is very winding, and is going to be heavily used by ORO's Evacuation buses due to the fact that Newbury's Transfer Point is located on it. Finally, at about 7:00 p.m., two and a quarter hours after the accident, ORO issued a press release intended to advise the public about the road impediment and to instruct evacuees on ORO's recommended re-route. The news release, however, was grossly inaccurate and advised the media

(and the public) that "[a]n overturned lumber truck on Route I-95 southbound at the junction of Scotland Road is blocking traffic flow southbound." This, of course, was simply not true. The consequences were likely to have been serious: Thousands of evacuees heading south on I-95 would undoubtedly have heard press reports of a road blockage on I-95 and would have left I-95 seeking alternative evacuation routes. Those who got off I-95 and sought routes to the west of I-95 would have driven back into the plume, which by 7:00 p.m. had just passed over I-95 and was heading further west. Meanwhile, the road crew that was dispatched to the scene arrived at about 7:00 p.m. only to discover that it did not have a large enough wrecker to remove the lumber truck. ORO had not properly assessed the needed assistance. At 7:14 the road crew had to call for additional assistance from a 10-ton wrecker. Then, when the road impediment was finally removed at about 7:30 p.m., no efforts were taken before the Exercise ended to quickly notify the public that the blockage was removed and that I-95 was clear for travel.

In summary, at each and every step in dealing with this traffic impediment, ORO personnel bungled the task at hand: communications internally were delayed and sloppy, causing ORO's perception of the event to evolve to the point of distortion. ORO failed to adequately coordinate the dispatch of the necessary removal equipment in a timely fashion. They failed to implement an effective temporary detour for the traffic backed-up at the scene, and the re-route devised for

traffic heading toward the impediment was not adequate. Most importantly, ORO failed to notify the public in an accurate and timely fashion of the existence of the blockage, and when they attempted to do so they issued a factually incorrect location for the blockage -- on I-95 southbound -- that would have caused thousands of evacuating drivers to leave I-95 and drive directly into the radioactive plume. Indeed, throughout its handling of this road impediment, ORO personnel acted without any regard for the plume's location.

ORO's response to this road impediment demonstrates that much more than additional training is needed before it can be concluded that ORO has the organizational ability and resources to adequately assess and respond to road blockages. Even with extensive and repeated communications training, a plan re-structuring is needed to streamline the process, give road-blocking impediments organizational priority, and ensure that plume location and direction are considered. Only a further exercise can test whether the fundamental flaws demonstrated during this exercise are correctible or whether, as is more likely the case, a non-professional group of emergency responders can not, given the degree of skill and coordination required, ever respond adequately in a timely enough fashion to ad hoc problems like this that will inevitably develop during a real emergency.

MAG EX. 14: The Exercise revealed a fundamental flaw in the SPMC in that the medical facilities, equipment, procedures, and personnel demonstrated in the exercise were not adequate for handling contaminated, injured or exposed individuals, as required by 10 CFR § 50.47(b)(12) and the guidance set forth in NUREG-0654, Rev. 1, Supp. 1, § II.L.1. Thus, ORO failed to satisfy Exercise Objective 24, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 CFR § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. According to NUREG-0654, Rev. 1, Supp. 1, § L.1:

"The offsite response organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals."

During the Exercise, only one hospital participated as a host hospital for the ORO. Thus, there was no demonstration of ORO's arrangements with both a local and at least one back-up hospital, and there is no reasonable assurance that such other hospitals as are relied upon in the SPMC have the same or similar capabilities as demonstrated by the hospital which did participate. A test of only one hospital is insufficient in a full-participation exercise.

B. The one hospital which did participate in the Exercise has inadequate facilities. This hospital uses a room in the Emergency Department to treat and decontaminate seriously ill or trauma patients contaminated with radioactive material. If the patient is ambulatory, however, and had only minor injuries, he/she is taken to the morgue for decontamination. Use of the hospital's morgue for this purpose is highly inappropriate. The persons taken there have already been traumatized enough by being both injured and radiologically contaminated. Taking them to the morgue at this point is not in the patients' best interests.

C. Personnel at the one hospital tested displayed serious weaknesses as well. Incredibly, both the medical and the nursing staff did not adequately understand the biological effects radiation and the significance of counts per minute, contamination, and millirems per hour dose rates. This is a fundamental problem that casts serious doubt on the ability of this hospital, one which does not do much radiological monitoring/decontamination work, to perform adequately in an emergency. More training may or may not be the solution. If these workers rarely get to perform these procedures, occasional training may not be sufficient to keep the staff ready. Only another exercise can adequately assess whether training can solve this deficiency.

MAG EX 15: The exercise revealed a fundamental flaw in the SPMC in that NHY's ORO and the personnel of various support organizations relied upon by NHY demonstrated a need for so much additional training that NHY's training program itself was demonstrated to be inadequate. This failing violates 10 CFR § 50.47(b)(15) and the guidance set forth in NUREG-0654, Rev. 1, Supp 1, § II.O. In a utility-sponsored emergency offsite response organization like ORO's, which utilizes non-professionals (typically utility workers) to staff key emergency response positions that are nothing like their day-to-day jobs, an adequate training program is essential to ensure that personnel can and will be able to provide adequate protective measures for the public as required by 10 CFR § 50.47(c)(1).

Under the SPMC, ORO regularly offers training and retraining for both NHY and non-NHY personnel involved in an emergency response. Training has consisted of classroom presentations, table-top sessions, walkthroughs and drills. There are (21) modules or areas of training which are offered. The large number of training deficiencies revealed during the Exercise demonstrates serious inadequacies in ORO's training to date. Such a program fails to comply with 10 CFR § 50.47(b)(14) and (15) and NUREG 0654, § II.N and O.

In its Final Report, FEMA identifies a significant number of training inadequacies in almost all areas assessed during the Exercise. Yet ORO had practiced and trained extensively in each of these areas prior to the Graded Exercise. Thus, the exercise results disclose fundamental flaws in the SPMC

training program which preclude a finding that adequate protective measures can and will be taken in an emergency.

Virtually every error made by an ORO player during the exercise involves, to some degree, a failure of the SPMC training program to convey basic and essential knowledge and/or skill. As such, each "ARCA" identified by FEMA, plus each additional significant error committed during the exercise and identified in other contentions, provides the basis for this contention that the exercise results showed a fundamental flaw in the training program. Listed below are some of these ARCAs and errors:

A. The exercise demonstrated that the SPMC training program has not successfully or effectively trained respondents to follow and implement basic plan procedures and to accurately communicate information and data essential to an integrated, coordinated response.

B. The exercise demonstrated that the SPMC training program does not successfully or effectively train or prepare respondents to respond properly, appropriately, or effectively to unanticipated and unrehearsed situations likely to arise in an emergency and tested in the Exercise by "free play."

C. The exercise demonstrated that the SPMC training program has not successfully or effectively trained respondents to follow direction given by superiors during an emergency.

D. The exercise demonstrated that the SPMC training program has not successfully or effectively trained respondents to exercise independent or good judgment or to use common sense in implementing the Plan and procedures.

E. The exercise demonstrated that the SPMC training program is ineffective in preparing and training respondents to provide truly, accurate, consistent and unconflicting information to the public through interaction with the media.

F. The exercise demonstrated that the SPMC training program fails to provide adequate training to those players who are not employed by NHY or Seabrook Station but upon whom ORO relies to implement its plan.

G. The exercise demonstrated that SPMC training in the areas of dosimetry, exposure control, KI, understanding of radiation terminology and related areas is deficient. Because the public, during an emergency will seek information from ORO workers regarding these matters, it is absolutely essential that ORO understand and know how to use dosimetry equipment.

MAG EX 16: The exercise demonstrated fundamental flaws in the SPMC and the state of off-site preparedness with regard to planning standard 10 CFR 50.47(b)(9) and the corresponding guidance set forth at NUREG 0654 II.I.7 and as a result exercise Objective 10 which required the ORO to "[d]emonstrate the ability, within the plume exposure pathway to project dosage to the public via plume exposure, based on plant and field data" was not met. As a consequence, no reasonable assurance finding is supported by the exercise results.

A. ORO had insufficient numbers of radiological monitoring field teams available. As a consequence, during the exercise ORO requested 60 additional monitoring teams from outside sources. These teams were not available in a timely fashion and even if they had been available no prior planning existed to deploy these teams effectively and coordinate and integrate the field data they would be generating.

B. The teams available to ORO were not deployed effectively around the perimeter of the plume in a timely fashion.

C. Field data was not effectively communicated to or utilized by ORO personnel responsible for assessing and recommending appropriate PARS.

MAG EX 17: The exercise demonstrated that ORO was unable to establish and operate rumor control in a timely and efficient fashion. Thus, it failed to comply with 10 CFR 50.47(b)(7) and NUREG 0654 § II.G.4. Exercise results which individually and collectively evidence the aforementioned deficiencies preclude a finding of reasonable assurance that adequate protective measures can and will be taken in the event of an emergency. The following bases support this contention:

A. The maximum number of calls able to be simultaneously handled by JTIC phone staff does not demonstrate an adequate ability to handle and control rumors for the entire EPZ and all media callers. In a radiological emergency there would be many more calls and the inability to effectively deal with all or most calls in a timely manner could result in confusion and lack of communication and would effectively cancel out any benefit that may have been gained by the effective handling of a few calls.

B. The constraints imposed by FEMA regarding extent of play were too limiting and as a result, the ability of the ORO to meet FEMA Objective 15 and to comply with pertinent provisions of the SPMC were not adequately demonstrated. FEMA limited rumor control calls to a maximum of five calls per hour for each player. Such a limitation is totally unrealistic and does not show how those players individually or how ORO in general would operate rumor control in a coordinated and timely fashion under actual emergency conditions.

C. During the exercise, ORO personnel responded to various inquiries from the public. As is shown in the following examples, their responses demonstrated ORO's inability to dispel rumors, to correct misinformation, to provide necessary, accurate and timely information to the public and to ensure that such information is coordinated and non-conflicting. These examples of repeated errors demonstrate a fundamental flaw: Inquiry/Rumor Memos ("IRM") logged at the following times with the following callers: 1:30 (Brown); 2:00 (Randolph); (no time)(Clark); 3:18 (Collins); 3:30 (Lynn); 4:22 (Crand); 1:10 (Davis); 2:45 (Sanders); 3:10 (Bradshaw); 6:12 (Frances); 7:02 (Stone); 7:10 (McGuire); 16:40 (Jones).

MAG EX 18. The Exercise revealed fundamental flaws in both the SPMC and the NHRERP in that both NHY's ORO and the State of New Hampshire failed to demonstrate the adequacy of their procedures, facilities, equipment and personnel for the registration, radiological monitoring, and decontamination of evacuees, as required by 10 C.F.R. § 50.47(b)(10) and the guidance set forth in NUREG-0654 § II.J.12 ("The personnel and equipment available shall be capable of monitoring within about a 12-hour period all residents and transients in the plume exposure EPZ arriving at reception centers"). Thus, ORO and the State of New Hampshire failed to satisfy Exercise Objection 19, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 C.F.R. § 50.47(a)(1) and (c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. The Exercise failed to demonstrate that in the event of an actual emergency at Seabrook Station, the reception centers could be timely activated, because for the Exercise, necessary equipment and supplies, including monitoring trailers, were delivered to the reception centers prior to the commencement of the Exercise. In a real emergency such equipment would not be located at the reception centers prior to the emergency.

B. The exercise failed to demonstrate that ORO and New Hampshire had adequate staffing, procedures, facilities and equipment to monitor within 12 hours all evacuees who would have arrived at reception centers.

As required by NUREG-0654, § II.J.12, neither NHY ORO nor the State of New Hampshire demonstrated the ability to meet the SPMC's and NHRERP's goal of monitoring evacuees at a rate of 55/hour per monitoring station. In twenty minute "mini scenarios," the State of New Hampshire averaged three minutes to process one evacuee, and NHY ORO also averaged less than 55 evacuees per hour for each monitoring team with the second shift teams performing considerably worse than the first shift teams. There is no reasonable assurance that even the monitoring rates that were demonstrated in the 20 minute scenarios, when personnel knew they were being tested for speed, could be maintained for a 12 hour period. See also Par. (g), below. Moreover, the Exercise demonstrated a fundamental flaw in the SPMC and the NHRERP in that in the event of the kind of radioactive release that occurred during the Exercise, resulting in a clock-wise sweeping plume that hit virtually every town in the EPZ, many more persons would have been reporting to the reception centers for monitoring than ORO and the State of New Hampshire had the staff and equipment to monitor within a 12-hour period, even assuming each team could monitor at a continuous rate of 55 evacuees per hour.

Moreover, in the event of an actual wide-spread contaminating release, such as occurred in the Exercise, it is likely that many persons not within the towns specifically instructed to report for monitoring would also report to the reception centers for monitoring to assure themselves that they had not been contaminated.

C. During the Exercise the State of New Hampshire and NHY's ORO also failed to demonstrate the capability to adequately monitor evacuees and vehicles and to detect radiation. The State of New Hampshire failed during the exercise to detect increased levels of radiation in two persons, which FEMA believes was due to a lack of sufficient equipment, *i.e.*, headsets for each monitoring team and/or faulty monitoring equipment or inadequate maintenance of monitoring equipment. In addition, NHY ORO did not use adequate or consistent procedures for monitoring most vehicles entering the reception centers, (*e.g.*, only the door handles and front grill were monitored on most cars) and the monitoring trailer for evacuees at the North Andover reception center was inappropriately set up in an area with a high level of background radiation which caused the outside dosimetry to "spike real bad" according to ORO personnel. Furthermore, the twenty-minute mini-scenarios did not appropriately test monitoring capability in that monitoring teams knew to look for contamination in the only one or two places on the person where the packets of contaminated material could be placed, *i.e.*,

pockets, and the contaminated packets were not distributed randomly among the "evacuees," but were instead distributed to every fifth person in line. Except for the two twenty-minute mini-scenarios, when the monitoring teams were alerted that packets of contaminated material were being placed on the "evacuees," no contaminated packets were placed on any persons to be monitored.

D. The Exercise revealed a fundamental flaw in that it failed to demonstrate adequate knowledge or training and/or adequate procedures in the handling of contaminated individuals and vehicles. For example, with respect to the State of New Hampshire, FEMA found the DPHS staff at the state EOC were not familiar with the Radiological Screening Program and who has specific duties and responsibilities for implementation of the program. In addition, FEMA found further training warranted for the DPHS personnel relative to providing recommendations to reception center staff pertaining to the handling of contaminated individuals and vehicles. With respect to NHY's ORO, it took over one half hour to complete monitoring of the one contaminated injured individual who arrived at the North Andover reception center, and at least ten minutes before any of the personnel discovered that the man was injured, as well as contaminated. In addition, the man was not informed, prior to his departure in a simulated "ambulance," of the radiological monitoring program.

E. The Exercise demonstrated a fundamental flaw because there is insufficient space at the reception centers to handle all the vehicles that would arrive there in the event of a wide-spread contaminating release like the one which was simulated for the Exercise. For example, the North Andover reception center, to which all of the Town of Amesbury was instructed to evacuate, has parking capacity in its "clean car" lot for at best 100 cars, leaving aisles between cars for them to exit. The parking lot for contaminated vehicles is considerably smaller. Many more vehicles would have needed to be parked in these lots if the Exercise had been a real emergency.

F. The Exercise revealed a fundamental flaw because it did not demonstrate adequate staffing for two shifts at the reception centers. For example, at the reception center in Dover, FEMA found that "additional personnel for security, directing evacuees, and housekeeping would have to be provided to bring the facility to fully operational capacity." FEMA Exercise Report, pp 184-185. There were also insufficient personnel at the reception centers in Beverly and North Andover to staff all necessary functions, and a large percentage of the first shift personnel, especially those in supervisory positions, were not relieved by personnel from the second shift. There is thus no assurance of a 24-hour staffing capability for these facilities.

G. The Exercise demonstrated a fundamental flaw because procedures for exposure control at the reception centers were inadequate. For example, although "clean" and "dirty" areas were established and roped off at each center, procedures were insufficient and staffing inadequate to ensure that clean/dirty areas were respected by staff and evacuees; people were routinely able to cross over these lines undetected. There was also insufficient space inside the monitoring trailer for people being monitored to consistently stay behind the "clean" line, and those found to be contaminated could not move down to the decontamination area in the trailer without brushing against those who were being monitored.

In addition, clean/dirty procedures were not adequately maintained during the twenty-minute mini-scenarios where the goal was to process evacuees through the trailer as rapidly as possible. During the mini-scenarios in North Andover there was no monitoring of the evacuees' feet or hands prior to entering the trailer. As a result, people whose feet were contaminated would likely have spread the contamination to others inside the trailers. Also, no green "clean" tags were issued to those people deemed clean after monitoring. If these procedures had been in place, it would have taken significantly longer to process evacuees through the monitoring trailer.

In addition, the Exercise demonstrated that procedures for handling contaminated clothing are inadequate. During the

Exercise evacuees who do not wish to give up their clothing were allowed to leave the reception center with the contaminated articles in hand, albeit in a plastic bag.

The Exercise revealed a fundamental flaw in that no procedures are in place for dealing with pets who may be brought to the reception center by their owners, and who may be contaminated. For example, staff at the reception center in North Andover said they would not monitor pets brought to the reception center because the SPMC did not provide for that and had no idea what would be done with pets. In the event of an actual emergency at Seabrook Station, it must be expected that many people will arrive at the centers with their pets regardless of any instructions they may receive not to. (EBS messages given during the Exercise did not instruct evacuees to leave pets at home when they left, and pre-emergency information -- which people do not have -- will not be an effective way to tell people to leave pets at home.) In the event of a major contaminating release, as was simulated during the Exercise, some of these pets brought to reception centers are bound to be contaminated. If these contaminated pets are not monitored and allowed to leave the reception centers without decontamination, they could contaminate clean people they subsequently come in contact with.

H. The Exercise further revealed a fundamental flaw because there are insufficient procedures and equipment in place to deal with vehicles that may break down while in line

at the reception centers. For example, personnel at the North Andover reception center did not know what to do with a special needs van that broke down in front of the monitoring trailer and was to some extent disrupting the flow of traffic for several hours.

I. The Exercise further revealed a fundamental flaw in that most processing of evacuees prior to monitoring, including registration, occurred outdoors without any covering overhead. In rainy weather, the conditions simulated on the day of the Exercise, not only would evacuees get soaked, but clean/dirty lines could not be maintained, and all papers, including the RERPS and registration material which were set out on tables outdoors would be drenched. Indoor processing space has not been demonstrated to be available; thus there is no reasonable assurance that these facilities are adequate.

MAG EX 19: The Exercise revealed a fundamental flaw in the Seabrook Station Radiological Plan and Emergency Response Procedures in that during the Exercise the licensee's personnel did not issue appropriate protective action recommendations ("PARs) to the NHY Offsite Response Organization, the State of New Hampshire, or the State of Maine, as required by 10 C.F.R. § 50.47(b)(10) and the guidance set forth in NUREG-0654, § II.J.7. and NUREG-0396.

This licensee failing, coupled with the high degree of reliance placed by NHY's ORO, the State of New Hampshire, and the State of Maine on the PARs provided by the licensee, precludes a finding that there is reasonable assurance that protective measures for the public can and will be taken in the event of a radiological emergency at Seabrook Station.

Exercise results which individually or collectively form the basis for this contention include the following:

A. As described in detail in MAG EX 19 (incorporated herein by reference), the PARs issued by NHY's ORO were not appropriate in numerous respects. These PARs were exactly those which were being recommended by the licensee at that time, and the ORO relied on these licensee PARs almost totally.

B. The PARs issued by the State of New Hampshire were also inappropriate in many respects, including the following:

1. While evacuation of Seabrook, Hampton, Hampton Falls, Kensington, South Hampton, and North Hampton was recommended to the public at about 2:30 p.m., people in ERPA F (Brentwood, East Kensington, Exeter, Kingston, Newfields, and Newton) were not recommended to evacuate until almost 5:00 p.m. Given the size of the release, the potential for increased releases of Iodines and Cesium if filters degraded or failed, and the uncertain and unfavorable meteorological conditions (particularly regarding wind speeds, wind direction, and the likelihood of precipitation), this ERPA should have been recommended to evacuate sooner. As a result, thousands of residents in this ERPA who could have safely evacuated earlier were hit by the plume; and

2. The residents of Stratham, Greenland, New Castle, Rye, and Portsmouth were never advised to evacuate but were advised to shelter. Unfortunately, later that evening the plume passed over all of these communities with the possible exception of New Castle.

As a result of these inappropriate PARs, the chances were significantly increased that people in these areas would have received dosages in excess of PAGs. These PARs issued by New Hampshire were exactly those PARs recommended to it by the licensee at that time, and state officials placed great reliance on them.

C. The State of Maine issued no PARs to evacuate or shelter any of its towns during the Exercise. Indeed, because they relied totally on the licensee's PARs, Maine was unaware that an evacuation and/or sheltering PAR needed to be issued for Kittery, Maine, and perhaps other towns as well. The licensee's failure to make such a PAR for Maine -- i.e., to extend a PAR to those just beyond the northern border of the EPZ -- had serious consequences because by about 8:20 p.m. on Day 1 of the Exercise, the plume reached Kittery and passed directly over it carrying sizeable concentrations of radioactivity. Prior to that point the same factors noted above at B should have prompted the licensee to issue at least a sheltering and probably an evacuation PAR for that area. The failure to do so significantly increased the likelihood that people in this part of Maine would have received dosages in excess of PAGs. NUREG-0654 does not excuse the licensee from recommending protective actions outside the EPZ when necessary. To the contrary, NUREG-0654 implies that this will happen as a matter of course and uses this as a justification for requiring detailed planning only out to about 10 miles. See NUREG-0654, p. 12. Beyond 10 miles, ad hoc protective actions can perhaps be effective, but only if the state officials in charge have been advised by the licensee that such actions are recommended.

D. In all the instances described above, the licensee's inappropriate PARs were derived from its METPAC

computer model. It appears from what happened during the Exercise that this model has some fundamental flaws that cause it to fail to take into proper consideration all known facts as well as existing uncertainties in the generation of PARs. It, among other things, fails to adequately consider ETES, weather uncertainties including wind speed and directional changes, and release conditions. In recommending PARs to offsite officials, licensee personnel in the EOF merely passed on copies of the METPAC print-outs without offering any guidance on how much reliance the PARs contained therein should be given.

MAG EX 20: The Exercise revealed a fundamental flaw in the SPMC in that NHY's ORO demonstrated that it does not have adequate facilities, equipment, displays and other materials to support emergency operations, as required by 10 C.F.R. § 50.47(b)(8) and the guidance set forth in NUREG-0654, Rev. 1, Supp. 1, § II.H. Thus, ORO failed to satisfy Exercise Objective 5, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 C.F.R. § 50.47(c)(1).

Exercise results which individually and/or collectively form the basis for this contention include the following:

A. The facility in Haverhill designated in the SPMC as the Staging Area was not demonstrated because, according to the NHY's manual for the 1988 FMA NRC Graded Exercise (the NHY Exercise Manual) "constraints . . . currently exist with the use of the Haverhill Staging Area." NHY Exercise Manual, p. 2.3-3. Absent the availability of the Haverhill Staging Area, and a demonstration of the adequacy of its facilities, the SPMC is fundamentally flawed. Use of that facility as a staging area is impermissible under the City of Haverhill zoning ordinances, and there is no likelihood that Haverhill will change these ordinances to permit this use in the near future. While the utility has appealed the denial of the special use permit to Superior Court, speculation that the court will

overturn the city's decision is just that -- speculation. The "realism" doctrine does not carry such force that it must be assumed that in the event of a real emergency at Seabrook, local and state laws in Massachusetts can be waived or ignored. Thus, there is no reasonable assurance that the SPMC's designated facility for use as a Staging Area will ever be available for that use. The area in Salem, N.H., used during the Exercise as a substitute Staging Area would not be a suitable permanent substitute for the Haverhill site. It is too far from the EPZ and does not have adequate space, facilities, or equipment.

B. During the Exercise, the Media Center was demonstrated to be inadequately equipped with maps and displays detailing evacuation routes, the plume path, relocation centers, congregate care centers and meteorological data. This constitutes a fundamental flaw because absent these maps and displays, ORO's media representatives, and those from New Hampshire and the utility, were unable to offer the media a clear, concise, and readily understandable explanation of what was going on. Confusion was generated; the media liaisons appeared to be less than knowledgeable about evacuation routes, plume path, etc.; and the public was not able to gain much more information from the media than they got from sketchy EES messages. To the extent that the media liaisons are not clear, the public's anxiety will be heightened and spontaneous

evacuation and other ad hoc actions will increase. The solution is not simply to properly equip the Media Center. The staff there need to know how to use maps and displays in their presentations, and a mechanism must be in place to keep the maps and displays current. Only another exercise can prove with reasonable assurance that these things can be accomplished.

C. The Exercise events revealed that in the event that ORO had to call in a third shift before the Exercise ended, ORO did not have adequate dormitory for the third shift workers.

D. The traffic cones displayed by ORO's Traffic Guides during the exercise were too small, and will be too hard to see at night to function effectively in controlling evacuation traffic.

MAG EX. 21: The Exercise revealed a fundamental flaw in the SPMC in that NHY's ORO failed to demonstrate that it has adequate vehicles, equipment, procedures, and personnel for transporting contaminated, injured individuals, as required by 10 C.F.R. § 50.47(b)(12) and the guidance set forth in NUREG-0654, Rev. 1., Supp. 1, § L.4. Thus, NHY's ORO failed to satisfy Exercise Objective 19, and this precludes a finding of reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at Seabrook, as required by 10 C.F.R. § 50.47(c)(1).

Exercise results which individually and collectively form the basis for this contention include the following:

A. During the course of the exercise, because the ORO failed to implement traffic control in a timely fashion and then would not have been able to control traffic at all, evacuation traffic would have been so disorderly that many accidents producing personal injuries would have occurred, many of them in areas which were being or had been contaminated. ORO's meager ambulance resources, even on paper, would have been woefully inadequate to transport the number of contaminated, injured persons that would need transportation to hospitals.

B. During the Exercise, only one of the ambulances ORO is relying on to transport contaminated, injured persons was tested. The two ambulance attendants in this ambulance were

called to a reception center and asked to deal with one single contaminated, injured person. Procedures were observed and evaluated. By mobilizing only one ambulance and its crew and testing its knowledge of proper handling procedures, the Exercise failed to test this major portion of ORO's plans using sufficient numbers of ambulances and crews to verify in any meaningful way the capability of ORO to respond to the accident scenario contained in the Exercise with an adequate number of ambulances and adequately trained ambulance attendants, as required by 10 C.F.R. Part 50, App. E, IV. F. 1., n. 4.

C. The one ambulance crew that was tested performed poorly in its demonstration of its ability to properly handle a contaminated, injured individual. First, the attendants did not cover the patient to confine contamination immediately before or after loading. This exhibits a fundamental lack of understanding of the concepts involved in handling contaminated individuals. While the attendants later realized their error and then did wrap the patient, their failure to do so at the outset would have likely contaminated their vehicle. A further major mistake was made when the attendants failed to change their shoe covers and gloves at the scene, which is not only the proper technique but is set forth in their procedures. When questioned where they would take the individual, the attendants noted that they would go to one of two designated hospitals listed in their procedures. In the event of a life-threatening medical problem, however, they should go to the nearest hospital, not one of the two they had listed.

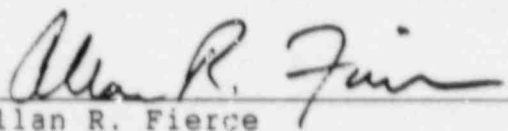
This, too, exhibits a fundamental failure in their knowledge and procedures. The poor performance of this ambulance crew cannot be dismissed lightly. FEMA notes in its Exercise Report that this crew had received an eight-hour training course provided by NHY personnel, viewed a video on proper procedures, and was "familiar" with its written procedures (available in the ambulance). It is not at all clear that with a little more training or clearer procedures, these attendants would perform any better. Only another exercise will reveal whether these individuals have the capability to carry out the transportation of contaminated, injured individuals in a proper manner.

D. Based on the performance errors exhibited by the one ambulance crew tested, no valid generalizations can be made that there is "reasonable assurance" that the entire fleet of ambulances and attendants being relied upon by ORO can perform in an adequate manner. Given the small sample size, there were too many errors observed to draw any such conclusion.

Respectfully submitted,

JAMES M. SHANNON
ATTORNEY GENERAL
COMMONWEALTH OF MASSACHUSETTS

By:


Allan R. Fierce
John Traficante
Pamela Talbot
Assistant Attorneys General
Nuclear Safety Unit
One Ashburton Place, Floor 19
Boston, MA 02108
(617) 727-2200

DATED: September 21, 1988

EXHIBIT 1



THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE ATTORNEY GENERAL

JOHN W. McCORMACK STATE OFFICE BUILDING
ONE ASHBURTON PLACE, BOSTON 02108-1698

JAMES M. SHANNON
ATTORNEY GENERAL

June 27, 1988

Kathryn A. Selleck, Esq.
Ropes & Gray
225 Franklin Street
Boston, MA 02110

Re: Joint exercise of Seabrook emergency plans

Dear Kate:

I am writing to you now for two reasons. First, I want to confirm the results of our discussions over the past few days regarding conditions your clients, the Applicants, are placing on the Mass. Attorney General's observers. In some cases our discussions have resulted in arrangements which are somewhat at variance with those expressed in the correspondence you have received from Diane Curran. Second, I want to express clearly, for the record, that many of the conditions and restrictions being imposed on our observers are unreasonable, unnecessary, and are likely to impair the ability of our observers to meaningfully see, hear, and understand what is happening during the exercise. While Diane's letters to you speak in terms of an "agreement" that has been reached between the Intervenor and the Applicants, we want to make clear that we have not "agreed" to much of what that "agreement" contains. Rather than seeking an agreement on a set of mutually established ground rules for our observers, you have set forth a series of non-negotiable conditions to which we must submit before you will allow our observers into any of the key facilities. We have had no choice but to submit to these conditions and restrictions if we want to observe the exercise at all. So, while we are submitting to the conditions and restrictions, we have not "agreed" to them in the sense that we are satisfied with them. In fact, we are not satisfied in the least, and we hereby protest formally the conditions I will set forth below.

Turning now to the first item, I want to clarify a few points that we have discussed that vary from the terms set forth in Diane's correspondence with you.

Kathryn A. Selleck, Esq.
Page Two
June 27, 1988

1. VANS staging areas. Although you originally indicated that we would need to enter into a new protective order regarding the VANS staging areas before you would identify their six (6) locations, when we protested our objections to such an order you subsequently agreed to consider a bi-lateral protective "agreement" that would not need to be issued by the Board. As we discussed this further, however, we reached the following mutual understanding: we have agreed to forego placing observers at the six (6) VANS staging areas on the condition that you promptly provide us with the exact time each of the VANS vehicles took to drive to its assigned acoustic location from the time first notification went out to the VANS drivers during the exercise.

2. Observers at NHY EOC. Although you have limited us to having a single observer at the NHY EOC (a matter we have protested, as discussed below), contrary to what Diane Curran's correspondence indicated you have agreed to allow us to designate two people who can rotate in and out of the building so long as both are not present inside together at any time.

3. Communications at the NHY EOC. You have now indicated that an extension phone will be run out from the EOC to the parking lot for our use. We appreciate this effort. Because this is an extension phone, we have agreed not to call into the EOC on it as this would interfere with the exercise. Likewise, you have agreed that our calls will not be monitored by having someone or some recording device listening on that line.

Turning now to those conditions and restrictions to which we have objected, we want to note specifically those among the many conditions you have imposed on our observations which are most likely to hinder our ability to observe the exercise in a meaningful way. These conditions are the following:

1. One observer at the NHY EOC. We believe that so much will be happening in this important facility that two observers are needed at a minimum to observe the exercise meaningfully. You have specifically denied this request on the grounds that there is only room for one observer in the EOC hallway, where our observer will be located. We find this extremely difficult to believe and hereby protest this decision.

2. Communications limitations. We specifically requested permission to have access to a telephone inside the EOC, either in the Mass. State Government Room or elsewhere,

Kathryn A. Sellecik, Esq.
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and you refused this request saying all phones would be needed for the exercise. We then requested permission to use a cellular telephone inside the EOC, and you denied this request. We then requested permission to use a Mass. State Police or Civil Defense radio from our car in the parking lot, and you denied this request stating that the frequencies these radios use were too close to frequencies being used during the exercise and might interfere with communications between the exercise players. At this point you did offer us the extention phone noted above, and while we are grateful for this gesture, we are not satisfied. Our preference was and still is that we have access to a means of communications from inside the EOC, and you continue to refuse this request. Because we can only have one observer inside the EOC at any point, the necessity to run outside to make a call will impair our ability to continuously monitor the exercise.

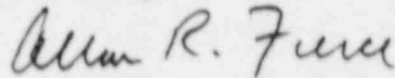
3. Controller messages. We specifically requested to be provided with a copy of each of the NHY controller messages. We did not want them prior to the Exercise, but we did want to be provided with a copy of each at the time or shortly after each message was given to a player or Control Cell. You have specifically refused. As you know, these messages control the extent of play and direct the flow of the exercise. Without them, even though we may be able to see and hear what is happening, we may not know what it is that the players are trying to accomplish or what a given action means. As a result, absent Controller Messages, our observers are not likely to be able to engage in a meaningful observation of the exercise.

4. Rules for Exercise Observers. You have required each of our observers to sign an extremely onerous release form, which also lists a series of "Rules" for exercise observers. We have protested that we should not be required to sign such a release, but you have insisted that it be signed by each of our observers as a condition of entry into any facility used in the Exercise. We do so under protest. We also believe that the rule against asking questions of anyone is unfair and unnecessary. While we do not intend to speak to or ask questions of the players during the exercise, we would like to be able to speak to and ask questions of the FEMA evaluators and NHY controllers about what is happening. This would only be done during the "down" time periods when the controllers and evaluators are not actively observing the play. Your rules prevent us from asking any questions whatsoever.

Kathryn A. Selleck, Esq.
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As we head into the exercise, these are the key (although not the only) conditions and restrictions we are most concerned about. You have indicated that even with these conditions and restrictions our observers will have a meaningful opportunity to observe the exercise. This remains to be seen. After the exercise has concluded, I will advise you whether our observers did or did not have this meaningful opportunity.

Sincerely,



Allan R. Fierce
Assistant Attorney General
Nuclear Safety Unit

ARF:jmc

EXHIBIT 2



THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE ATTORNEY GENERAL

JOHN W. MCCORMACK STATE OFFICE BUILDING
ONE ASHBURTON PLACE, BOSTON 02108-1698

JAMES M. SHANNON
ATTORNEY GENERAL

July 1, 1988

Kathryn Selleck, Esq.
Ropes & Gray
225 Franklin Street
Boston, MA 02110

Dear Ms. Selleck:

This letter documents the extent to which your promise of fair access to the Salem Staging Area for purposes of observation during the June 28 and 29, 1988 exercise was not honored.

As you know, you and Allan Fierce reached an agreement that whatever access was given to Massachusetts Attorney General participants in the exercise upon arrival at each of the various facilities would not be withdrawn arbitrarily. I arrived at the Salem Staging Area with an investigator from my office, Maureen Mangan, at approximately 7:30 a.m. We were accompanied into the facility at 7:50 a.m. with our escort, Peter Kearns, one of New Hampshire Yankee's attorneys from Sheehan, Phinney in Portsmouth. Mr. Kearns and the individual who greeted us at the facility (his first name is Dick, I do not remember his last name) told Ms. Mangan and me that we were given full access to the briefing rooms, the special vehicles room, the liaison room, and the staging area leaders' room. The only limitation was that should a full briefing take place in the staging area leaders' room, and the room became crowded with people, we would be asked to leave and observe from outside. I accepted that arrangement as fair and reasonable.

At approximately 9:20 a.m., I entered the staging area leaders' room and observed a discussion between Mr. Michaels, the New Hampshire Yankee controller, and two FEMA evaluators. The discussion centered around a bus evacuation and traffic control point problem which, judging from Mr. Michaels' reaction, was unanticipated by your client. As instructed, I did not ask questions; did not obstruct movement; and I merely observed and took notes on the conversation.

Kathryn Selleck, Esq.
July 1, 1988
Page 2

One-half hour later, Mr. Kearns informed me that Mr. Michaels had restricted my access to outside of the leaders' room. He gave no reason but promised to open the windows in the office. Shortly thereafter, two windows to the office, which had earlier been closed, were cracked open by two inches. After I complained that this action hardly amounted to an accommodation, the windows were opened further. Nevertheless, I could not hear any conversations in the staging area leaders' room (mostly because of the hushed tones used whenever I was in the vicinity) either from outside of the open windows or from the doorway. In any event, by noon one window and then the other one were again closed.

Early in the morning, I had introduced myself to Mr. Tanzman, the lead FEMA evaluator. At his own initiative, he later gathered his four onsite evaluators and introduced them to me and to Ms. Mangan. He told me that he would be happy to answer any questions I had, to the extent time permitted, but would prefer that I directed them at him rather than at his evaluators. Shortly thereafter, Mr. Kearns informed me that notwithstanding Mr. Tanzman's offer, I was not permitted to ask questions of anyone.

At 3:30 p.m., three observers from the NRC entered the facility and were permitted unrestricted access to the staging area leaders' room. Given the reason for limiting my access to that room, namely that it was too crowded and my presence would obstruct the views of the boards, I do not understand why NRC observers were permitted in that room. Moreover, at no point during the day was the room so crowded as to render my presence obstructive.

At 3:45 p.m., while I was observing activities within the special vehicle room, Mr. Kearns again came in and informed me that I was being asked to stay out of that room as well as the liaison room. At 4:15 p.m., Mr. Kearns informed me that Mr. Badger had restricted my access to the hallways and that I was not to enter any of the briefing rooms. No reason was given.

At 4:30 p.m., while I was observing activities within the staging area leaders' room through the windows, the assistant staging area leader instructed a member of his administrative staff to move the information table underneath the windows so as to prevent me from viewing from that location as well.

Kathryn Selleck, Esq.
July 1, 1988
Page 3

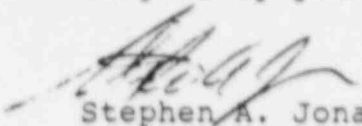
At approximately 4:40 p.m., Mr. Kearns informed me that I would be permitted in the briefing rooms but not in the liaison or special vehicles room. He told me it was Mr. Badger's feeling that those rooms were too crowded. In fact, the special vehicles room was nearly empty for the vast majority of the afternoon and the liaison room was large enough to accommodate several observers, although few actually went through that room.

As you know, through the course of the day I attempted to remove these unreasonable restrictions on my access by having other members of our team contact you. Either you did nothing to instruct the staging area personnel to abide by your original agreement or your efforts were completely ineffectual. In either event, the conduct of New Hampshire Yankee employees toward Ms. Mangan and myself was reprehensible.

Unfortunately, that conduct did not abate but rather worsened during the second day of the exercise when Pamela Talbot took my place at the Staging Area. She was not permitted even near the special vehicles room or liaison room; the remaining observation spot into the staging area leaders room -- the windows -- was removed; and the briefing rooms were accessible only if Ms. Talbot and Ms. Mangan remained in the back of the rooms, often out of hearing range. Once again, New Hampshire Yankee representatives used the excuse that too many people would be in those rooms to permit us access. However, they were near empty for the entire day. Particularly inexcusable is the fact that several of your client's employees were rude to Ms. Talbot and Ms. Mangan.

The agreement on access reached between you and the intervenors was premised on the notion that we should and would be given meaningful opportunities to observe all facets of the exercise. At all times during the course of the two days, Ms. Mangan, Ms. Talbot and I abided by the rules set forth in the agreement. On the other hand, you, or at least your clients, did most everything possible to interfere with our observations. The result was not only a breach of the agreement but also our constructive removal from the facility.

Very truly yours,


Stephen A. Jonas
Deputy Chief
Public Protection Bureau
(617) 727-4878

SAJ:bm

EXHIBIT 3



THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF THE ATTORNEY GENERAL

JOHN W. McCORMACK STATE OFFICE BUILDING
ONE ASHBURTON PLACE, BOSTON 02108-1698

JAMES M. SHANNON
ATTORNEY GENERAL

July 8, 1988

Kathryn A. Selleck, Esq.
Ropes & Gray
225 Franklin Street
Boston, MA 02110

Re: Joint Exercise of Seabrook Emergency Plans

Dear Ms. Selleck:

Now that the Joint Exercise of June 28 and 29, 1988, has concluded and we have had an opportunity to assess the restrictions your clients imposed on our observers, we want to record our protest that (1) we were not permitted any opportunity to see and hear much of the crucial activity that apparently occurred during the Exercise and (2) much of what we were permitted to observe was not meaningful because either we could not hear what the players were saying or, in the absence of the Controller Messages, it was not possible to understand what the players were trying to accomplish.

Stephen Jonas has already written to you about the serious obstacles he, Maureen Mangan, and Pamela Talbot encountered in trying to observe activity at the Staging Area. We consider the limitations placed on their observations there to be a reprehensible violation of your commitment to treat our observers fairly and to permit meaningful observation of the Exercise events. The following documents some of the serious obstacles Paul Beaulieu and I faced at the Newington facility where the ORO Emergency Operations Center ("EOC"), Seabrook Station Emergency Operations Facility, and the New Hampshire Incident Field Office are located.

As you know, your clients limited us to one observer at the ORO end of the building; so Paul and I took turns observing inside while the other was forced to stay outside beyond the security fence. While inside, we were restricted to the hallways at the ORO end of the building. These limitations hampered our observations in the following ways:

1. We could not see or hear into the Executive Conference Room. This restriction was especially frustrating because it was in the Executive Conference Room, just off the ORO Operations Room, where ORO's Director and Assistant Directors would go when they wanted to call the FEMA Control Cell stand-ins for the Governor of Massachusetts and other key state officials. These calls occurred periodically during both days of the Exercise, and they were of crucial interest to us for obvious reasons. Yet from our position in the hallway outside the Operations Room, we were able to hear only snippets of what was said by the ORO participants on each call. It appeared that ORO members made these calls whenever ORO was seeking legal authority to take some action. The ORO players placed great importance on the calls, and indeed the communication (or lack thereof) which occurred during these calls may have been the single most important activity which occurred at the ORO EOC. Because of where our observer was positioned, however, we were unable to hear 95% of what was said on the phone to the "Governor's Representative A" (located at the FEMA Control Cell), not to mention what Representative A said in response. We could hear none of that, even though it was typically on a speaker phone and audible to all those within earshot. FEMA evaluators, NHY controllers, and others obviously thought these calls were extremely important. Two, three, or more of them would always gather close to the doorway of the Executive Conference Room whenever these calls occurred. Other observers and visitors also showed great interest in these calls, and they were not prohibited from looking into and listening through the doorway of the Conference Room when the calls were being made. Your colleague, Tom Dignan, did so on occasion; so did the staff attorneys for the NRC who were present. As far as I could tell, Paul and I were the only people at the ORO end of the building who were prohibited from hearing these crucial phone calls. Yet at no time was the number of people gathered outside the Conference Room door so great as to create a blockage to movement. One more person -- our observer -- would not have done so either. As you know, throughout the Exercise, I repeatedly protested and complained to you about this situation, hoping that you would reconsider the restrictions you placed on my movement and allow me to approach the Conference Room during these calls just as the other observers were doing. No accommodation was made, however, and the result is that you and your clients prohibited us from observing and hearing this critical part of the Exercise. We consider this treatment of our observer to be a major breach of your commitment to allow our observers a meaningful opportunity to see and hear the important aspects of exercise play that took place in this facility.

I should also add that another problem related to the restriction of our observer to the hallways in the ORO EOC was that certain status boards on the walls in some rooms were impossible to see. For example, as I looked over the partition into the Operations Room, I was unable to see the "Facilities" status board or the one which reported on the status of monitoring and decontamination activities.

2. Your refusal to provide us with the Controller Messages prohibited us from understanding and assessing much of what we saw going on. There can be no doubt that having the dozens, if not hundreds, of NHY Controller Messages handed out to the players during the Exercise is a prerequisite for any full and complete assessment of the emergency response capability of ORO. FEMA obviously had to have a copy of these controller messages in order to begin its assessment. We deserve to have them too. However sound your reasons may have been for refusing our pre-Exercise request to provide us with copies of these messages at or shortly after the time they were handed out to the players during the Exercise, there is simply no valid reason whatsoever why we should not be provided with these messages now, and we demand that you do so. Your repeated refusal will be viewed as a continuing effort to frustrate our right to litigate the results of the exercise by preventing us from placing the minimal observations we do have in any meaningful context. Just as we cannot draft contentions about the SPMC without seeing a copy of it, we cannot draft contentions about the Exercise without seeing the Controller Messages. These messages, coupled with the actions of the players, are what constitute "the exercise." We cannot assess how well the players played the game until we are informed what the game was and what the ground rules were. This information can come only from Controller Messages. Our position is that the clock on Exercise contentions should not begin to run until we have these messages in hand. Until we see them, we have not seen "the Exercise" and cannot fairly be expected to thoughtfully critique it fully.

3. By restricting us to one observer, you necessarily prohibited us from observing much of the simultaneous activity going on in all of the rooms at the ORO's EOC. The ORO EOC consisted of five (5) rooms (not counting the above-mentioned Conference Room) on one floor in the main building and 6-7 additional rooms on two floors in the "stack-shacks" behind the main building. Continuous activity appeared to be occurring in almost all of these rooms throughout both days of the Exercise. Our single observer, therefore, who could observe only a single room at a time, was unable to watch more than a small fraction of what went on at any given point in the Exercise. FEMA obviously recognized the necessity of having

multiple observers at ORO's EOC -- at least half a dozen were there. As you know, we requested to have two observers at the ORO EOC and you specifically refused this request on the grounds that there was room for only one of our observers in the EOC hallway. In fact, only for a brief period during the "shift change" on Day 1 of the Exercise was the main EOC hallway crowded. At all other times there is no valid reason why we should not have been permitted to have two observers present. They would have been located at different places, observing into different rooms, and would not have caused the EOC hallways to be noticeably more crowded. The State of New Hampshire allowed two intervenor observers to be present at all times at its IFO at the other end of the Newington building. Even though the IFO occupied a smaller space than ORO's EOC, there was no problem accommodating the two intervenor observers. We now view the restriction which limited us to a single observer at the ORO EOC as nothing less than a tactic to minimize the amount of exercise activity our observers could witness at ORO's end of the building.

Summary

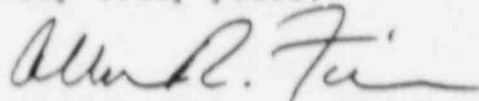
There are other problems I will forego describing in more detail, such as the unnecessary restriction prohibiting us from using a cellular telephone inside the EOC, a restriction which appears to have been imposed just to force us to leave the building and miss crucial exercise play whenever we sought to call other members of our observation team. There was also the nearly debilitating physical hardship you needlessly imposed on Paul and I by forcing us to stand on our feet throughout the entire 11 or 12 hours of the Exercise each day while every other player, observer, and evaluator had the opportunity to sit down on something while carrying out at least some portion of their tasks. The key problems I have described above, however, were clearly the most serious. Together, the restrictions you and your clients imposed on our observers at the Staging Area and at the ORO EOC effectively prevented our observers from fully engaging in a meaningful observation of the Exercise. This is more than unfortunate; we consider it to be a serious violation of our right, established by the UCS case, to litigate the results of this emergency preparedness exercise. That decision is substantially gutted if license applicants can constructively prohibit intervenors from seeing, hearing, or understanding as much of what happens during an exercise as you and your clients did on June 28 and 29.

We do not consider the above-described problems to be substantially mitigated by the fact that we will receive the FEMA final report on the Exercise within 60 days or by the fact

that we will be entitled to obtain discovery about the Exercise from the Applicants after the admission of Exercise contentions. You will undoubtedly press for the filing of contentions prior to the issuance of FEMA's final report, will oppose nearly every contention we submit, and will object to much of what we seek in discovery. That process offers us no reasonable assurance that the gaps in our knowledge about ORO's performance during the Exercise -- gaps you and your clients have caused -- will ever be closed through the provision of factual information. You know full well that we cannot obtain the information during discovery unless we have an admitted contention on the topic, and we cannot write contentions without having some basis in fact. So your efforts, and those of your clients, to frustrate our fact-gathering efforts during the Exercise clearly display your motive -- to keep us ignorant of as much of what transpired during the Exercise as possible.

We are still assessing what appropriate actions need to be taken to redress the violation of our right to observe the Exercise in a meaningful way. At the very least, we will be insisting on (1) a meaningful time to prepare contentions after having received both your clients' Controller Messages and the final FEMA Exercise report, and (2) ample time to conduct the extensive discovery that has now become necessitated by your clients' efforts to block our view of the Exercise.

Very truly yours,



Allan R. Fierce
Assistant Attorney General
Nuclear Safety Unit
(617) 727-2200

ARF/BT

cc: H. Joseph Flynn
Steven Bergquist
Robert Backus
Diane Curran
Matthew Brock
Sandra Mitchell

EXHIBIT 4

ROPES & GRAY
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BOSTON, MASSACHUSETTS 02110

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WASHINGTON, D.C. 20004
(202) 626-3900
TELECOPIER (202) 626-3961

July 22, 1988

Allan R. Fierce, Esq.
Assistant Attorney General
Department of the Attorney General
One Ashburton Place, 19th Floor
Boston, MA 02108

Re: Public Service Co. of New Hampshire
(Seabrook Station, Units 1 and 2),
Docket Nos. 50-443-OL, 50-444-OL

Dear Allan:

I have your minatory letter of July 8 depreciating our efforts to afford you an opportunity to observe the Joint Exercise of June 28th and 29th and purporting to document "some of the serious obstacles" you faced at the Newington EOC. In that your letter is of five pages, it would seem fair to conclude that you have covered all of what you term "obstacles" rather than just some. Your letter also purports to put us on notice of possible reprisals or, at the very least, of reparations that will be "insisted on" for "the violation of your right[s]."

Your commination, as I read your letter, results from what you deem to be our failure to afford you some sort of advocate or investigatory participant status in the exercise. You claim that your observation vantage points were unreasonably restricted to the Mass EOC hallways from which you could but look over a shoulder-high partition into the Mass EOC ORO operations room; that you could not hear all of the speaker phone messages; that you were not permitted entry into the operation room to listen, close to the EOC Executive Conference Room door for the contents of telephone calls made there; that you were limited to one observer at a time within the security area; that you were not provided copies of controller messages and that you were not provided with

Allan R. Fierce, Esq.

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July 22, 1988

telephone access inside the building. You point out that none of these restrictions were placed on FEMA, NRC, NHY or applicant personnel and at no time were the number of people gathered so great as to block movement. You also complain of the lack of creature comforts in that you were forced to stand on your feet throughout the 11- or 12-hour exercise on each day. All of these you charge were motive driven to deprive you of a meaningful observation which you severally characterize as a major breach and a serious and reprehensible violation of my commitment.

As you will recall, we observed the exercise together on both days at the Newington, Mass EOC. My recollection of conditions and events differ.

For example, the EOC area as I recall was often crowded. I was frequently in the way of players, controllers, and FEMA evaluators when I stood, as you did, at or near the shoulder-high partition looking into the EOC. Part of the time I could not stand, as you did, at the partition because there wasn't any more room. Incidentally, you and your colleague Paul Beaulieu did not stand for the entire 11 or 12 hours of each day. You took periodic 10- to 20-minute breaks in your van and were occasionally spelled by Mr. Beaulieu. As you must know, the facility was designed for emergencies and not comfortable observations and a chair, if there were room, would have left you staring at the partition and not over it. I am sorry to learn now that you found inadequate the special telephone our client arranged to have run out to your car. This was done, as you know, in response to your representation that you did not know if you could afford to rent a car cellular phone.

More significant, however, in terms of a response to your complaints, is that no representations were made to you concerning what any observers would or would not be able to see and hear. It was made clear to you that the Applicants could not allow intervenor observers to roam at will through all the exercise facilities, talking to players and evaluators, and suiting themselves as to their numbers. Constraints were required to allow for the uninterrupted conduct of the exercise.

In the future, do refrain from assigning wrongful motives to our actions to make your points. You were informed during lengthy negotiations that the Applicants placed the highest importance on the uninterrupted conduct of the exercise, and the rules of your observation were made and negotiated with that object in mind. There is no warrant for

Allan R. Fierce, Esq.

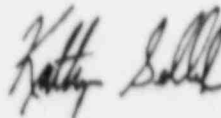
-3-

July 22, 1988

your intemperate, pejorative accusations. We do not take kindly to your unfounded charges.

As to your access to the Applicants' exercise-related documents, as I explained to Diane Curran before the exercise, this decision would be made after the exercise, as it did not need to be made in advance. You will see from the notice filed in the off-site proceeding that Applicants are making certain exercise-related documents available for inspection at Seabrook Station in advance of the time for discovery.

Very truly yours,



Kathryn A. Selleck

KAS/lme

cc: Diane Curran, Esq.
Geoffrey M. Huntington, Esq.

RECEIVED

JUL 22 1988

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

'88 SEP 22 P3:08

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)
)
)

PUBLIC SERVICE COMPANY OF)
NEW HAMPSHIRE, ET AL.)
(Seabrook Station, Units 1 and 2))
)
)

Docket No.(s)
50-443/444-OL
(Off-site EP)

CERTIFICATE OF SERVICE

I, Allan R. Fierce, hereby certify that on September 21, 1988, I made service of the within Massachusetts Attorney General's Exercise Contentions Submitted In Response To The June 1988 Seabrook Initial Full-Participation Exercise, by Federal Express as indicated by [*] to the following parties:

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I also certify that on September 22, 1988, I will make service of the foregoing documents to the remaining parties on this list who were not served on September 21, 1988, by first class mail, or by hand delivery as indicated by [**].

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DATED: September 21, 1988