

January 24, 1990

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Before Administrative Judges:

G. Paul Bollwerk, Chairman  
Alan S. Rosenthal  
Howard A. Wilber

_____	)	
In the Matter of	)	
	)	Docket No. 50-443-OL
PUBLIC SERVICE COMPANY	)	
OF NEW HAMPSHIRE, et al.	)	(Offsite Emergency
	)	Planning Issues)
(Seabrook Station, Unit 1)	)	
_____	)	

SEACOAST ANTI-POLLUTION LEAGUE'S BRIEF ON  
APPEAL OF THE PARTIAL INITIAL DECISION ON  
THE SEABROOK PLAN FOR MASSACHUSETTS COMMUNITIES  
AND 1988 FEMA GRADED EXERCISE (LBP-89-32)

Respectfully submitted,

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Before Administrative Judges:

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In the Matter of	)	
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PUBLIC SERVICE COMPANY	)	Docket No. 50-443-OL
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SEACOAST ANTI-POLLUTION LEAGUE'S BRIEF ON APPEAL OF THE  
PARTIAL INITIAL DECISION ON THE SEABROOK PLAN FOR  
MASSACHUSETTS COMMUNITIES AND 1988 FEMA GRADED EXERCISE (LBP-89-32)

I. THE ASLB ERRED IN VARIOUS RULINGS IN THE LITIGATION OF,  
AND IN ITS OVERALL DECISION IN REGARD TO THE ADEQUACY OF THE  
DEMONSTRATION OF RECEPTION/DECONTAMINATION CENTERS DURING THE  
NH PORTION OF THE FEMA GRADED EXERCISE FOR SEABROOK STATION

A. Background.

One of the FEMA objectives to be demonstrated in a full  
participation exercise of an emergency response plan is FEMA  
Objective #21, which states:

Demonstrate the adequacy of procedures,  
facilities, equipment and personnel for the  
registration, radiological monitoring and  
decontamination of evacuees.

The September 1, 1988 FEMA Final Exercise Report for the June  
28-29, 1988 graded Seabrook exercise evaluated this objective as  
"Met." FEMA did however identify two issues as "ARCA's" or "Areas  
Requiring Corrective Action", one identifying the need for

adequate monitoring equipment and the other identifying the need for more training of DPHS staff at the State EOC as regards the Radiological Screening Program for provision of recommendations to Reception Center Staff for the handling of contaminated individuals and vehicles. (See App. Exh. 43F at 183-185 [global 191-193]) On September 20, 1988, SAPL filed SAPL EX-12, a contention which stated as follows:

The adequacy of procedures, facilities, equipment and personnel for the registration, radiological monitoring and decontamination of evacuees was not demonstrated during the exercise. Facilities were not well organized and not run in an adequately effective manner. Therefore, the requirements of 10 CFR §50.47(a)(1), §50.47(b)(10), §50.47(b)(14) and NUREG-0654 J.12 have not been met.

In the statement of basis for this contention, SAPL challenged the scope of the exercise in that only two of the host communities in New Hampshire opened Reception Centers during the exercise, Dover and Salem. The other host communities of Rochester and Manchester, the latter being the community which will receive the largest number of evacuees, did not exercise their Reception Centers. SAPL further challenged the excessive length of time mock evacuees were kept waiting outdoors for services at the Reception Centers exercised, the problems in setting up and organizing the facilities, problems of their being too few personnel and personnel being called away, and certain equipment problems. Additionally, SAPL challenged the fact that the DPHS staff at the NH State EOC, who are to be the information and referral resource for the personnel at the Reception Centers,

were unfamiliar with their responsibilities and duties under the Radiological Health Screening Program.

The Licensing Board ruled on this contention in its Memorandum and Order of December 15, 1988. Before the Board ruled, it afforded the parties the opportunity to comment on the effect of the guidance provided by the Appeal Board in ALAB-903 on the meaning of the term "fundamental flaw," which comment SAPL made on November 22, 1988.

In its ruling, the Board admitted the contention with respect to the portion of the basis dealing with "implementation difficulties." The Board rejected the challenge to the adequacy of performance of the DPHS staff at the State EOC and the "scope aspect of the contention" which challenged the opening of only two reception centers.

SAPL prefiled "Testimony of Captain Daniel Breton and John Van Gelder, Firefighters for the Town of Salem, New Hampshire on Behalf of the Seacoast Anti-Pollution League, Regarding SAPL Contention EX-12 (Reception/Decontamination Centers)" (see Attachment A) on April 3, 1989, along with its Trial Brief. Applicants filed a Motion in Limine on June 8, 1989 seeking to exclude portions of this testimony. Following oral argument on June 13, 1989 (Tr. 25233-87), all portions of the Applicants' motion were granted, resulting in the elimination of significant portions of the testimony. The firefighters appeared at the hearing to testify as to the remaining portions of their direct on June 14, 1988. SAPL filed proposed findings on these issues on

August 11, 1989. The Partial Initial Decision of the Board, LBP-89-32, dated November 9, 1989, (hereinafter "PID II")<sup>1</sup> addressed these issues at pp. 518-522.

B. The Board Erred in Rejecting Significant Portions of the Basis of SAPL EX-12.

The Board, in its ruling of December 15, 1988, improperly eliminated important portions of the basis of SAPL's contention regarding Reception/Decontamination Center adequacy as demonstrated in the graded exercise.

First, the Board rejected that portion of SAPL's contention which challenged the scope of the exercise for not including the exercise of the Reception/Decontamination Centers in the host communities of Rochester and Manchester. 10 CFR Part 50, Appendix E.IV.F.1 states, however, that:

A full participation exercise which tests as much of the licensee, State and local emergency plans as is reasonably achievable without mandatory public participation shall be conducted for each site at which a power reactor is located for which the first operating license for that site is issued after July 13, 1982.

It was certainly "reasonably achievable without mandatory public participation" to test those other two centers. Further, the exercise of facilities in Dover and Salem, even had those demonstrations been adequate, would in no way have assured the adequate performance in wholly different communities with wholly different facilities and personnel. Thus the Board's reasoning

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<sup>1</sup>/The earlier Partial Initial Decision on the New Hampshire Radiological Emergency Response Plan will be referred to hereinafter as "PID I."

that the number of reception centers exercised was a "very good representation" is inapt.

The Board's ruling betrays a failure to understand the complexities of running an adequate monitoring and decontamination facility. There is little margin for error if the facility is to be maintained in a condition where contamination is kept in delimited areas, as is absolutely essential if the facility is to have its intended mitigative effect on public radiation exposure. Large numbers of evacuees will be routed to the host communities of Manchester and Rochester. Indeed, Manchester is the community designated to receive the largest number of evacuees, including the transient beach population from Hampton. The FEMA graded exercise did nothing to provide reasonable assurance of the capabilities of those communities to respond adequately to the challenges which the New Hampshire Radiological Emergency Response Plan anticipates they should be able to meet.

Indeed, PID II at 11.11 endorses the idea that:

It is more important to perform an extensive evaluation of emergency-specific response functions, which involve procedures and duties with which the responders would not be familiar on a normal daily basis and which would not be performed if it were not for the emergency or exercise. (Emphasis added.)

It is obviously true that the functions of monitoring and decontaminating evacuees fall among those emergency-specific functions which are not familiar to responders on a normal daily basis and which would only be performed in the anomalous situations of an emergency or exercise. By the logic adopted by the Licensing Board, therefore, the functions performed at the

Reception, Decontamination Centers were among those meriting "extensive evaluation." The Licensing Board obviously did not apply the logic articulated in PID II to its prior ruling on the admissibility of this portion of SAPL's contention.

A second erroneous ruling by the Board in its December 15, 1988 Memorandum and Order was the rejection of that portion of SAPL's contention which dealt with the performance of the DPHS staff at the NH State EOC. (The Board agreed with the NRC staff's claim of lack of basis for this part of the contention.) SAPL had cited as basis for this claim the FEMA Report's identification of the performance of the DPHS staff as a problem. However, the Board stated, "The Board does not find the unspecified reference to the FEMA Report a proper remedy to the insufficient basis." SAPL would argue that its reference to the FEMA determination with regard to the exercise performance of the DPHS staff at the State EOC was clear enough. Anyone at all familiar with the structure of FEMA's Exercise Report would immediately recognize that this FEMA evaluation would be in the New Hampshire section of the report (since it deals with the NH portion of the exercise) and would appear at Objective 21 (since it deals with radiological monitoring and decontamination).

The FEMA Report dealt with this matter as Issue #2 at Objective 21. The FEMA Report states as follows:

Evaluation: The DPHS staff at the State EOC were not familiar with knowledge of the Radiological Screening Program and who has specific duties and responsibilities for implementation of the program. Further training appears warranted for the State EOC DPHS personnel relative to providing

recommendations to Reception Center Staff pertaining to the handling of contaminated individuals and vehicles.

Recommendation: Revise/review procedure, if appropriate. Train staff. The Radiological Screening Program needs to be more specifically defined, and responsibilities assigned to individuals.

SAPL holds that its contention met the reasonable specificity requirement of the Commission's regulations. Further, SAPL holds that the very fact that FEMA raised the matter of preparedness of the DPHS staff as an issue provided a reasonable basis for SAPL's contention, particularly in view of the fact that Intervenors were given only a severely limited opportunity to observe the exercise firsthand at the NH State EOC and other locations.

Had this portion of SAPL's contention been admitted, SAPL believes that, through the discovery process, evidence could have been adduced which would have shown this defect in the DPHS staff's knowledge and performance during the exercise to be a fundamental flaw in the New Hampshire plan. The "integrated capability" of the Reception Center personnel to seek recommendations from and function in conjunction with the DPHS personnel at the State EOC was not shown to be adequate. 10 CFR Part 50, Appendix E.IV.F.1 n.4 requires that State and local authorities should test and verify an integrated capability to respond.

C. The Board Erred In Its Rulings On The Applicants' Motion in Limine.

On June 8, 1989, Applicants filed "Applicants' Objection in the Nature of a Motion In Limine to Portions of the Prefiled

Testimony of Captain Daniel Breton and John Van Gelder,  
Firefighters For the Town of Salem, New Hampshire on Behalf of the  
Seacoast Anti-Pollution League, Regarding SAPL Contention EX-12  
(Reception/Decontamination Centers)."

The Applicants argued that portions of the referenced  
testimony were beyond the scope of contention SAPL EX-12,  
specifically those portions having to do with a) training and b)  
numbers and scope, and that portions of the testimony were  
foreclosed by Commission Rule and res judicata.

As to training, the Applicants argued that "SAPL Contention  
EX-12 contains no allegation that reception center personnel,  
including firefighters, are insufficiently or inadequately  
trained."<sup>2</sup> Applicants did concede that SAPL raised issues of  
timing, administrative efficiency, and general confusion. SAPL  
responded during oral argument that implicit in its claims that  
people were confused and did not know what they were doing was a  
claim that the training was inadequate. SAPL also pointed out  
that the Applicants made no effort to file discovery to attempt to  
learn what SAPL intended to litigate and that further SAPL did  
apprise the Applicants of the intent to litigate training issues  
in its Trial Brief filed on April 3, 1989. SAPL argued that, by  
the very structure of the Commission's regulations, a challenge to  
the adequacy of exercise performance is perforce a challenge to

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<sup>2</sup>/The Applicants' argument in its Motion in Limine is in  
contrast with that in the Applicants' September 28, 1988 reply to  
SAPL's exercise contentions. There the Applicants argued that  
exercise problems SAPL identified at the Reception Centers would  
be readily correctable with additional training.

training since the exercise requirement falls under Section "F. Training" of "IV. Content of Emergency Plans" of Appendix E to Part 50. The exercise is not simply to provide training, it is to verify the efficacy of training.

SAPL believes that in ruling that the firefighters' testimony on training issues should be excluded, the Board engaged in hairsplitting that was deleterious to the completeness of the Board's understanding of issues underlying the poor performance at the reception centers. While it is true that there were problems that arose as a result of factors quite apart from lack of training, the failure of the utility to train emergency responders adequately is a significant and serious issue that led to a significant portion of the confusion apparent during the exercise. That issue was sidestepped by the erroneous ruling by the Board; Questions 10, 14, 19 and 20 and their answers in the firefighters' testimony were stricken as a consequence of the Board's ruling that inadequate training was not encompassed within the contention and basis. (Tr. 25251-52)

The next area the Applicants attacked in their Motion in Limine was question 12 and its answer, in which the firefighters testified that they do not even know how many evacuees they are expected to deal with at the Reception Center. The Applicants argue in their motion that "the issue of how large a number of people might appear at a reception center in an actual radiological emergency is irrelevant to a demonstration during an exercise . . ." The Licensing Board in its Partial Initial Decision on the New Hampshire Radiological Emergency Response Plan

(NHRERP) supported the findings that an emergency worker's understanding of his or her role (i.e. "role certainty") is important (see PID I at 7.46, 7.48, 7.49, 7.53). Certainly, to allocate manpower and resources effectively, emergency workers do need an understanding of the magnitude of the task they are expected to perform. However, the Board upheld the Applicants' reasoning that whether or not emergency responders understand the magnitude of their job is irrelevant to exercise performance. SAPL holds that exercises are, among other things intended to ". . . ensure that emergency organization personnel are familiar with their duties." 10 CFR Part 50, Appendix E.IV.F. SAPL holds that emergency workers being familiar with their duties includes the necessity of their being familiar with the extent of those duties.

The Applicants further moved that question 24 and its answer be stricken because in it, witness Breton commented on the scope of the exercise that was carried out at the Salem Reception Center. The Applicants cited the Board's ruling of December 15, 1988 eliminating "the scope aspect of the contention." Looking at the Board's December 15 Memorandum and Order, it is clear the Board was referring in its ruling to SAPL's claim of insufficient scope because "only two" reception centers had been exercised. The Applicants were in effect asking the Board to extend the ruling on scope to eliminate any challenge to the amount of activity that went on within each of the exercised reception centers. At Tr. 25261, Judge Smith ruled that questions and answers 12 and 24 were stricken "because they are beyond the scope

of the contentions in that the contentions did not fairly allege a flaw in the scope of the exercise." SAPL's position is that the language of the contention itself stated that the adequacy of facilities, equipment and personnel was not demonstrated during the exercise. The scope of the exercise was what it was, and SAPL adduced evidence that even what was attempted was not adequately carried out. Captain Eretton's testimony that what was attempted was not even of a reasonable scope is highly relevant to that point.

Applicants next asked that questions and answers 8, 13 and 25 of the firefighters' testimony be thrown out. The Applicants cited the direction of the Commission in the emergency planning rule that claims by local officials that they would refuse to act in the event of an actual radiological emergency should be rejected (Notice of Final Rule, Evaluation of the Adequacy of Off-site Emergency Planning for Nuclear Power Plants at the Operating License Review Stage Where State and/or Local Governments Decline to Participate in Off-site Emergency Planning, 52 Fed. Reg. 42,078 (Nov. 3, 1987)) and they further cited two of the Commission's decisions in the Shoreham litigation. Additionally, Applicants claimed that these sections of the firefighters' testimony were foreclosed by the doctrine of res judicata since the issue of human behavior in emergencies was litigated in the New Hampshire portion of the case.

SAPL holds that a different fact structure underlies the Salem firefighters' testimony than the issues that have been ruled upon by the Board in its earlier findings on Seabrook emergency

planning. First, Salem is a host community, not a community within the zone to be evacuated. It is a community to which evacuees go which is to provide services for those non-residents. Secondly, as is set out in the firefighters' testimony in answer to question 8, a Memorandum of Agreement between the Town of Salem and the Salem firefighters provides as follows:

The Town agrees that it will not require local 2892 members to participate in radiological/decontamination training, exercises and operations after June 28, 1988 until an agreement has been reached between the parties.

This raises the novel situation of certain local officials, who are agreeing to participate in the emergency response plans, having reached an agreement with other officials of the same municipality (the firefighters) which absolves them of the responsibility to participate. Though the Commission's emergency response rule and its Shoreham rulings instruct that local officials in non-participating communities are not to be credited when they say they will not participate in an actual radiological emergency response, this is not the situation addressed by the firefighters' testimony. Some Salem officials are participating and the community as a whole considers itself a participating community. It is the allocation of responsibility within a participating non-EPZ municipality which is at issue here. The NHRERP identifies the firefighters as those to staff the Reception/Decontamination centers. The NHRERP is not in conformance with the agreement in force within the municipality.

For the above-stated reasons, prior Commission rulings and

the doctrine of res judicata do not reach the facts in dispute. The answer to question 15 further raises the issue that Salem firefighters have responsibilities to protect the rest of the community which would be in conflict with Seabrook emergency response responsibilities and which cannot be neglected. Because this is a non-evacuating community other emergency responsibilities cannot be abandoned, e.g. houses cannot be left to burn down. Indeed, the Board's prior rulings on human behavior in emergencies militate against the Applicants' arguments that the firefighters will place priority on service at the Reception/Decontamination centers over other emergency response functions. (See also pp. 15-16, infra)

For these reasons, the Board was in error when it struck the above-mentioned portions of the firefighters' testimony.

D. The Board Erred In Failing To Find a Fundamental Flaw In the NHRERP Based on the Performance at the Salem Reception Center During the Graded FEMA Exercise.

SAPL presented a panel of two witnesses from the Salem Fire Department, Salem, New Hampshire, with respect to the issues in contention SAPL EX-12, Fire Captain Daniel Lewis Breton and Firefighter John William Van Gelder. Breton Dir., ff. Tr. 25535, passim. Under the NHRERP, Salem firefighters are designated as responsible for setting up the primary and secondary Reception/Decontamination Centers in the town and for monitoring and decontaminating evacuees arriving there. App. Exh. 5, Vol. 38, Appendix B.

On the day of the graded FEMA exercise, only the primary Reception/Decontamination Center, which is located at the Salem

High School, was exercised. App. Exh. 43 F at 184 [global 192] According to the NHRERP and prior findings of the Board, the number of firefighters required to staff the primary Reception/Decontamination Center in Salem is 66 and for the secondary center the number is 20, a total of 86 firefighters. App. Exh. 5, Vol. 38, Appendix B and PID I at 5.28, 5.34, 5.35. When Captain Breton and Firefighter Van Gelder testified in the hearing, the Salem Fire Department had 43 firefighters and 20 officers with no reserves (Tr. 25539), not enough to staff fully the primary center alone.

Captain Breton was the shift commander on the day of the FEMA graded exercise and Firefighter Van Gelder, the President of the Brotherhood of Salem Firefighters, was present as the union advisor. Breton Dir., ff. Tr. 25535 at 2. Both men have 17-18 years of experience as firefighters and Captain Breton, who has been in a command position for 9 years, has had extensive experience in judging the adequacy of response to emergency situations. (Breton Dir. ff. Tr. 25535 at 2, Tr. 25536, 25538-39, 25548-49)

On the day of the graded FEMA exercise, only 15 on-duty firefighters participated in the radiological emergency response, 12 of whom reported to the Reception/Decontamination Center. Breton Dir. ff. Tr. 25535 at 3 and 9. Though a tone went out to page them and they knew they would have been paid time and a half for responding, no off-duty firefighters responded. (Tr. 25563-64) Firefighter Van Gelder testified that the consensus among the

firefighters is that they have been lied to by Seabrook Station representatives. (Tr. 25562)

During the exercise, a fire at 15 Henry Street in Salem called away 9 of the 12 Salem firefighters from the Reception Center just 2 minutes after the Center was set up. (Breton Dir. ff. Tr. 25535 at 9-10, Tr. 25557-58) Prior fire calls had taken personnel out and had impaired set up of the facility. (Tr. 25557) Captain Breton testified that if there had been a house fire in Salem, he might necessarily have had to have sent his entire crew of firefighters to respond if that were the response recommendation. (Tr. 25545-47) Captain Breton further testified that, had the Henry Street fire been larger, they might have had to pull the mutual aid firefighters out of the Reception Center to deal with it as well. (Tr. 25579-80) Captain Breton testified that the Salem Fire Department averages 10 emergency calls per day. (Breton Dir. ff. Tr. 25535 at 9)

Captain Breton testified additionally that the Salem Fire Department cannot compromise the safety of the rest of the town to perform Seabrook emergency response functions; firefighters must maintain fire protection, do EMS rescues and the other emergency response functions they perform every day. (Tr. 25547, 25580)

The evidence from the exercise indicates that firefighters would place a higher priority on responding to other emergencies in Salem that are of the nature of the kinds of emergencies to which they regularly respond than they would on performing functions at the Reception Centers. The evidence during the exercise demonstrates that other conflicting emergencies can be

expected to arise. Both Captain Breton and Firefighter Van Gelder unreservedly expressed that the Salem firefighters do not have the manpower to carry out the tasks assigned under the NHRERP.

(Breton Dir. ff. Tr. 25535 at 5, Tr. 25555, 25557)

Clearly, there is a fundamental flaw in the NHRERP; the NHRERP relies on host community firefighters for the important function of monitoring and decontaminating evacuees, functions which under the Commission's regulations must be completed in a timely fashion. 10 CFR §50.47(b)(10) and NUREG-0654, J.12. Those personnel cannot reasonably be expected to be there. The problem of conflicting emergency roles is not res judicata. Further, the idea that firefighters would first respond to emergencies of a type with which they are more familiar, for which they are more fully trained, and for which they have greater role certainty is indeed consistent with the Licensing Board's prior human behavior findings (PID I at 7.48, 7.49) and the theories of Applicants' human behavior witness Dennis Mileti, whose testimony has been credited by the Board as "very persuasive" as to its human behavior findings in this area. (PID I at 7.53)

The Appeal Board has explicated the Commission's decision in CLI-86-11, 23 NRC 577, 581 (1986) restricting hearings on the results of emergency planning exercises to those issues revealing "deficiencies which preclude a finding of reasonable assurance that protective measures can and will be taken, i.e., fundamental flaws in the plan." Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-903, 28 NRC 499 (1988). The Appeal Board stated as follows:

In our view, a fundamental flaw in an emergency plan, as revealed in an exercise, has two principal components. First, it reflects a failure of an essential element of the plan, and, second, it can be remedied only through a significant revision of the plan.

With respect to the first component, the failure of the NHRERP revealed by the exercise was the failure to meet the requirements of planning standard 10 CFR §50.47(b)(10). Substantial and interrelated (as opposed to "minor and isolated") problems were encountered on the day of the exercise and the delay in setting up the Reception Center was so extreme that, had there been an actual emergency, the emergency response would have been ineffective.

The Salem firefighters testified that the lack of coordination and people not knowing what they were doing during the exercise contributed to an overall state of confusion. (Breton Dir. ff. Tr. 25535 at 7) Captain Breton averred that the plan is not clear enough. (Tr. 25576) Firefighter Van Gelder testified that, though the estimated time of opening of the Reception Center was to have been 1:00 p.m. under the scenario, in reality the Reception Center was not set up until 4:32 p.m. Exercise evacuees were forced to stand outside for a couple of hours waiting to get inside. (Breton Dir. ff. Tr. 25535 at 8, Tr. 25556-57) Buses carrying evacuees did not show up until about the time the exercise was to be terminated and they were just turned around and sent back. (Id. and Tr. 25559) The witnesses rebutted the FEMA evaluation of the exercise and stated that what appeared in the FEMA Report was not an accurate reflection of what actually went on at the exercise. Breton Dir. ff. Tr. 25535 at 7. Their

overall evaluation of the exercise was that confusion reigned. Id.

In PID II at 12.9 the Board fixed upon the improper loading of the truck noted by the witnesses as the cause of most of the confusion at the exercise and then brushed the matter aside as an easily correctable problem. Though the witnesses did state that time was wasted in emptying the misloaded truck, they did not testify that that was the major source of confusion. The firefighters pointed to lack of manpower, conflicting responsibilities and lack of coordination (and, had their testimony not been limited, they would also have pointed to lack of training) as the main causes for the inadequacies in performance. Indeed, it is interesting to note that, though the Board fixed upon the truck problem, it failed to address the astounding fact mentioned by Captain Breton that the truck with the emergency response equipment, which is supposed to remain parked in back of the Salem Fire Department, had not been seen since the graded exercise, i.e., for almost a full year. (Tr. 25572)

With respect to the second factor articulated by the Appeal Board in ALAB-903, it is plain that the deficiencies revealed at the host community Reception Centers can be remedied only through a significant revision of the NHRERP. The plan first and foremost must be revised to remedy the root problem of conflicting emergency roles. This can only be accomplished by identifying and planning for another pool of emergency response personnel to staff the monitoring and decontamination functions at the Reception Centers.

The Board's finding at PID II 12.7 that "available firefighter manpower is 'unlimited' in an emergency when mutual aid from surrounding communities is considered" contradicts the testimony that was adduced. The New Hampshire towns with which Salem has mutual aid agreements are mostly volunteer fire departments. (Tr. 25560) The Town of Windham, as an example, has only two permanent men on duty. (Tr. 25561) The Massachusetts towns Salem normally relies on for mutual aid are Methuen and Lawrence. (Tr. 25560) Assuming those towns would respond to a Seabrook incident despite their having indicated that they would not, they would respond to aid calls from the Massachusetts towns in the EPZ and not be available to Salem. (Id. and Tr. 25581) Captain Breton further testified that it is very difficult to work with firefighters from other communities because they do not normally function as a team. Further, the mutual aid firefighters have unknown levels of training and may have different ways of doing things. (Tr. 25567) He further testified as to a "domino effect" with mutual aid. When mutual aid towns are called out of one town to help in another, it can impair the mutual aid town's ability to handle its own emergency situations to such an extent that that town also must call in mutual aid. (Tr. 25579) Captain Breton's testimony was to the effect that mutual aid was not a realistic way to remedy the serious manpower shortages revealed by the exercise. Id.

Additionally, had the Board not eliminated portions of the firefighters' testimony related to training as discussed supra at pp. 7-9, Firefighter Van Gelder would have offered testimony that

the firefighters in the New Hampshire mutual aid towns of Pelham and Windham had not received any training for a radiological emergency at Seabrook as of the date of the exercise, June 28, 1988. Breton Dir. ff. Tr. 25535 at 4.

In addition to the significant revision to the NHRERP required to provide reasonable assurance that the planning standard at 10 CFR §50.47(b)(10) can be met, the plan needs further revision to clarify the parts that are "very confusing." (Tr. 25576)

Therefore, it is manifest that the results of the exercise of the Reception/Decontamination Centers during the FEMA graded exercise on June 28-29, 1988 revealed a fundamental flaw in the NHRERP.

- II. THE ASLB ERRED IN ITS RULINGS ON CONTENTIONS REGARDING HEALTH-RELATED ASSISTANCE TO EVACUEES UNDER THE SPMC AT RECEPTION/DECONTAMINATION CENTERS AND MS-1 HOSPITALS AND IN ITS FAILURE TO ADMIT THE TESTIMONIES OF DR. BELTON A. BURROWS AND DR. JENNIFER LEANING

A. Background

On April 11, 1988, SAPL filed "Seacoast Anti-Pollution League's Contentions on the Seabrook Plan for Massachusetts Communities", contentions on the Applicants' plan for the six municipalities within the Seabrook EPZ located in the Commonwealth of Massachusetts.

Among the contentions SAPL filed were two which dealt with the assistance evacuees potentially exposed to contamination would get under the Seabrook Plan for Massachusetts Communities (hereinafter "SPMC"), Contention 3 and Contention 5. SAPL Contention 3 stated:

The SPMC fails to provide reasonable assurance that adequate personnel, equipment and facilities for radiological monitoring and decontamination of general public evacuees, emergency workers and special facility evacuees (e.g. nursing home residents) have been established. Furthermore, the definition of "contamination" is 600 cpm above normal background radiation in the SPMC, which allows a greater level of contamination of Massachusetts residents to remain unaddressed while New Hampshire residents are decontaminated at 100 cpm under the NHRERP. Therefore the requirements of 10 CFR §50.47(a)(1), §50.47(b)(8), §50.47(b)(10), §50.47(b)(11) and NUREG-0654, Rev. 1, Supp. 1 II.H.4, II.J. 10.d, II.J.12, II.K.5.a. and K.5.b. have not been met.

SAPL Contention 5 stated:

The SPMC fails to meet the requirements of 10 CFR §50.47(a)(1), §50.47(b)(12) and NUREG-0654, Rev. 1, Supp. 1, II.L.1, 3 and 4 because hospitals identified in the SPMC are not

sufficient to evaluate radiation exposure and uptake, are not adequately prepared to handle contaminated individuals and are not adequately prepared to handle contaminated injured persons. Further, there are not adequate arrangements in the SPMC for transporting victims of radiological accidents to medical support facilities.

By order of the Board, Intervenor consolidated admitted contentions and the above two SAPL contentions were folded into Joint Intervenor ("JI") contentions; SAPL 3 into JI 56 and SAPL 5 into JI 46. As consolidated, JI 46 stated:

The SPMC fails to provide reasonable assurance that adequate protective measures can and will be implemented for all those persons who are patients in the two hospitals within the Massachusetts EPZ and for those who become injured during the emergency, from radiation contamination/exposure. The SPMC therefore fails to comply with 10 CFR §50.47(a)(1), §50.47(b)(10), §50.47(b)(12) and NUREG-0654, Rev. 1, Supp. 1, II.J.10.d, 10.e, 10.g; and II.L.

J.I. 56 stated:

The SPMC fails to provide reasonable assurance that adequate procedures, personnel, equipment and facilities for radiological monitoring and decontamination of general public evacuees, emergency workers and special facility evacuees (e.g. nursing home residents) have been established. Therefore, the requirements of 10 CFR §50.47(a)(1), §50.47(b)(8), §50.47(b)(10), §50.47(b)(11) and NUREG-0654, Rev. 1, Supp. 1 II.H.4, II.J.10.d, II.J.12, II.K.5.a. and K.5.b have not been met.

Under an agreement among the intervenors who were under Board instruction to work a "lead intervenor" concept, the Massachusetts Attorney General took the lead on litigation of the adequacy of the medical resources challenged by JI 46. The "Commonwealth of Massachusetts Testimony of Dr. Jennifer Leaning on the Resource

Needs of the Radiologically Injured" was filed on February 21, 1989. The testimony was offered to establish that the SPMC fails to provide adequate support and assistance to the radiologically injured. On April 19, 1989, the testimony was excluded by the Board and on April 20, 1989, the Board ruled against SAPL's motion for reconsideration of that ruling. The Massachusetts Attorney General also offered the testimony of Dr. Kenneth Peele, Sister Paula Bradley and Sister Doris Brouillette, all of whom are associated with the St. Joseph's Hospital in Lowell, Massachusetts, which is the primary MS-1 hospital identified by the Applicants. Their testimony was heard. Cross-examination of this panel by intervenors was limited by Board rulings. (e.g. Tr. 23366-71)

Applicants offered "Applicants' Rebuttal Testimony No. 6 (Protective Actions for Particular Populations)" and "Applicants Rebuttal Testimony No. 17 (Radiological Monitoring Process)" on the issues contested by the above-described intervenor contentions.

On June 26, 1989, SAPL offered "Surrebuttal Testimony of Belton A. Burrows, M.D. on Issues Re: MS-1 Hospitals, Reception/Decontamination Centers and FEMA (GM) MS-1 Guidance" and Dr. Burrows' curriculum vita. The Applicants moved that the entire piece of testimony be excluded. On June 27, 1989, following oral argument (Tr. 27647-27724), the testimony was excluded in its entirety. (See "Attachment B").

B. The Board Erred In Rejecting the Portion of  
Contention JI-56 as to The Adequacy of the  
SPMC Relating to Decontamination Showers

As part of the basis for SAPL Contention 3, which was consolidated into Contention JI-56, the following concern about the adequacy of the two monitoring trailers provided for monitoring and decontaminating Massachusetts evacuees under the SPMC was raised:

Though a diagram is provided, the plan does not describe the total size of the trailers, so it is impossible to get a true picture of the practicability of monitoring a claimed 8,300 evacuees within a 12-hour period at each trailer. There are 14 monitoring stations and two showers in each trailer. That would work out to approximately 1.2 minutes to get each evacuee passed through a monitoring station, which is not possible in the real world. At 10 minutes per shower, (the time given by Applicants for the NHRERP decontamination procedures), only 6 people could be decontaminated per shower per hour, which would mean that there would only be the capability of decontaminating 144 people in a 12-hour period in each of the trailers, or a total of 288 people from the entire Massachusetts portion of the EPZ (which is less than .4% of the population).

On January 26, 1989, the Board barred intervenors from litigating the adequacy of the decontamination showers. (See PID II at 9.46 fn. 63). SAPL is not in possession of the transcript of the teleconference during which this ruling was made and was not a party to it since the Board had stated that intervenors would be represented in teleconferences by the Massachusetts Attorney General to alleviate the difficulty of establishing such a large number of teleconference connections. It is SAPL's understanding, based on consultation with counsel for the

Massachusetts Attorney General, that the Board's ruling is based on the interpretation of regulatory guidance that there is no set time frame within which decontamination of evacuees need be accomplished in contrast to the "within about a 12-hour period" limit established by NUREG-0654 Rev. 1. Supp. 1., II.J.12 for completion of radiological monitoring. (See also PID II at 8.103)

SAPL believes that any logic interpreting the Commission's regulations that could cause the Board to determine that the question of the timeliness of decontamination can be disregarded is fundamentally wrong. There is a logical nexus between the time requirement that monitoring must be done within about a 12-hour time frame and the idea that decontaminations must be carried out within a similarly reasonable time frame. The purpose of radiological monitoring is to determine whether or not contamination is present so that if it is, it can be removed. There would be no point at all in requiring timely monitoring if decontaminations, the need therefor having been identified by the monitoring, were not carried out in timely fashion.

The fact stated in SAPL's contention above, that less than .4% of the Massachusetts EPZ population could be decontaminated if the decontamination rate assumed under the New Hampshire Radiological Emergency Response Plan was maintained with the facilities provided under the SPMC, identifies a serious deficiency in the level of public protection afforded under the SPMC. Until external radiological contamination is removed, contaminated evacuees will be subjected to continuous exposure

from the radiation-emitting contaminants on skin and/or hair and/or clothing. This is exposure that could be mitigated by an adequate plan and adequate facilities. The SPMC's failure to make provisions for adequate facilities will result in unnecessary, preventable exposures to the population.

Further, the fact that there are only two showers impacts on the Board's findings as to monitoring. The Board found the Applicants use of a 60-second frisk rate to be reasonable (PID II at 9.84). The Board further found that there should be 10 monitoring stations capable of processing 20 evacuees at a time. (PID II at 9.98) There is the potential, therefore, that every 70 seconds 20 evacuees could, if found contaminated, be routed to the 2 showers. It takes very little analytical capability to realize that there could soon be a very lengthy back up of evacuees awaiting the use of the showering facilities. This bottle neck in the process could, despite the FEMA witnesses' testimony that people awaiting showers could be put in a holding area outside the trailers (Tr. 19081-83), be disruptive to the timeliness and quality of even the monitoring services.

Quite apart from even the potential effect on monitoring rates, the failure to allow litigation of the adequacy of the decontamination capability provided for under the SPMC, decontamination being the primary treatment to be afforded to mitigate potential ill health effects of evacuees suffering from contamination, is beyond the range of understanding and reason and is clearly contrary to the Commission's regulation at 10 CFR

§50.47(a)(1) that there be "reasonable assurance that adequate protective measures can and will be taken."

C. The Board Erred In Failing to Admit the Surrebuttal Testimony of Belton A. Burrows, M.D.

On June 27, the ASLB rejected in its entirety the surrebuttal testimony of Belton A. Burrows, M.D. based upon the argument of Applicants' counsel that the testimony should have been filed earlier as direct testimony. (The intent to file surrebuttal testimony was announced timely following upon the presentation of the direct testimony it was intended to rebut and SAPL prefiled the testimony on June 26, 1989). The Applicants further argued that there was nothing within the scope of Contention JI-56 to which the second part of Dr. Burrows testimony on Reception Center adequacy related.

In the oral argument before the Board on the admissibility of the testimony (Tr. 27647-27725), SAPL pointed out that the plan indicated that all evacuees who could not be decontaminated after the three attempts specified in the plan would be sent to an MS-1 hospital. Section 3.8 of the SPMC, "Medical and Public Health Support", under 3.8.1 "Hospital Services" states:

Emergency care for contaminated injured individuals includes the general public as well as emergency workers and covers those members of the general public who are suspected to have been overexposed or who cannot be decontaminated at designated Reception Centers. The list designating primary and back-up hospitals is available at the New Hampshire Yankee Offsite Response EOC and at reception Centers operated by the New Hampshire Yankee Offsite Response Organization. (Emphasis added)

Because the plan stated that the emergency care provisions at the hospitals covered those people who could not be decontaminated at the designated reception centers, SAPL focused on the lack of preparedness of hospitals as set forth in Contention 5, which became part of JI 46. Under the lead intervenor arrangement, the Massachusetts Attorney General filed Dr. Jennifer Leanings' testimony on the resource needs of the radiologically injured, which addressed the capabilities and arrangements that would be required by responding hospitals to provide needed services, which testimony was not admitted. On May 17, 1989, SAPL cross-examined Applicants' witness Anthony Callendrello, who was a part of Applicants' Rebuttal Panel No. 6 on Protective Actions for Particular Populations. (This opportunity to cross examine came after the second date, April 3, for the filing of direct testimony in the case.) SAPL's representative asked Mr. Callendrello:

The plan provides for sending people on to MS-1 hospitals for further processing if they can't be decontaminated at the reception center; is that correct?

Mr. Callendrello responded:

Yes. With the exception of some individuals who may have internal contamination. They may be entered into the radiological screening program in accordance with IP 2.9."  
(Tr. 21, 557)

Therefore, SAPL did not have adequate notice prior to this testimony by Mr. Callendrello that people who were internally contaminated and not decontaminated at the reception centers could, under the SPMC, simply be put into a so-called

"radiological screening program" with no medical evaluation whatsoever.

After a considerable amount of exegesis of the text of the SPMC and the accompanying procedures manual during oral argument, the Board ruled that the plan provided only that traumatically injured people would automatically go to the hospitals for treatment. (Tr. 27690) The Board stated:

Well, there is no question that it takes care to read it, and it took, in our case, help to read it. I mean you are correct on that score.

But once it is understood, it is, in our view, very clear. Once the scheme, once the whole scheme falls into place the Board has been consulting while we have been talking, and it is clear to us what the scheme is, and not that we're saying that you read it carelessly or didn't act promptly or anything else. That's not the point.

You have done a lot of work on it, and you have acted within your concept of it well and promptly.

But, nevertheless, that isn't the standard we can apply. We have to apply the clear meaning of the plan, and we do believe that the meaning is clear, although difficult. Unfortunately, that's the way of the world sometimes. (Tr. 27691-27692)

SAPL holds that the Board erred in its ruling. One, the fact that the plan is unclear and subject to varying interpretations is a problem that ought to be addressed, even apart from the question of SAPL's litigative rights. That it took hours of oral argument to make clear the Applicants' scheme of operations should be a matter of concern, since this is a plan provision that emergency responders at the reception centers such as the firefighters

discussed at Section I supra, must understand. Secondly, SAPL believes the Board erred in abridging SAPL's litigative rights on this matter. SAPL should not be penalized because the plan was unclear. What happened was akin to a shell game. SAPL believed the potentially large pool of undecontaminated evacuees would be sent to hospitals without adequate provisions, when, lo and behold, they are back at the reception centers, to be sent off from there without any medical evaluation. Not only did the lack of clarity of the plan make it difficult for SAPL to understand the Applicants' scheme of operations, but it would have been virtually impossible for SAPL to think, without explicit information to said effect, that the Applicants could actually be planing to send undecontaminated evacuees off on their own, a scheme that SAPL believes is incredibly irresponsible and contrary to the Commission's regulations as articulated in the "Statement of Policy on Emergency Standard 10 CFR §50.47(b)(12), 51 Fed. Reg. 32904, September 27, 1986. (See also Footnote 3 infra)

The Applicants' interpretation of the language of their plan raises the concern as to who at the reception center determines which people are referred to medical facilities and which are not, what qualifications those persons have for making those determinations and the quality of information at their disposal for use in making those determinations. Under cross-examination by SAPL's representative in May, Mr. Callendrello referred to the procedures for the Monitoring/Decontamination Leaders at IP-2.9 when asked what the criteria are for determining who goes into a hospital and who just goes to the tracking program. Those

procedures at IP-2.9, Section 5.2.16 of the SPMC state as follows:

When individuals have contamination which cannot be removed after three decontamination attempts or are suspected of having internal contamination (e.g., individuals with facial skin contamination.)

- A) Notify the Radiological Health Advisor.
- B) Obtain the individual's name, social security number, address, and telephone number, and provide the information to the Radiological Health Advisor for entrance into the Radiological Screening Program.)<sup>3</sup>

Examination of the Radiological Health Advisor's (RHA's) procedures at IP-1.2 reveals that there are no adequate criteria for the RHA to employ in determining which contaminated evacuees get referred to hospitals and which do not. There is, therefore, no reasonable assurance that referrals will be made appropriately.<sup>4</sup>

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<sup>3</sup>/In preparing this brief, SAPL came across an earlier version of procedure IP-2.9, Section 5.2.16 (Amendment 2 to the SPMC) which has different instructions at A and B and a step C as follows:

- A. Arrange for the individual to be transported to one of the hospitals listed in Appendix M, NHY Offsite Response Emergency Resource Manual.
- B. Notify the Radiological Health Advisor.
- C. Ensure that individuals take Copy A of Attachment 1 with them to the hospital.

This earlier draft of the SPMC contributed to SAPL's perception that the plan intended that all unsuccessfully decontaminated persons would go to MS-1 hospitals. (See Attachment C.) Applicants' counsel was wrong, therefore, when he argued that there was no change in the plan. (Tr. 27660)

<sup>4</sup>/It is worth noting that the DPHS Staff (which includes the RHA) at the State EOC in New Hampshire were found lacking in their understanding of the Radiological Health Screening Program. See p. 6 supra. The FEMA report provides no indication as to whether the RHA function was exercised on the Massachusetts side of the  
Continued on following page

The Commission's regulations at 10 CFR §50.47(b)(12) require that: "Arrangements are made for medical services for contaminated injured individuals." In November 1986, detailed guidance was developed by FEMA in consultation with the NRC Staff pursuant to the Commission's September 17, 1986 Statement of Policy on this matter. FEMA Guidance Memorandum, MS-1 defined "contaminated injured", as it is used in the cited regulation, as encompassing categories of individuals: (1) contaminated and otherwise physically injured; (2) contaminated and exposed to dangerous levels of radiation; or (3) exposed to dangerous levels of radiation. The Board's ruling that the SPMC could provide for hospital treatment of just those in category 1 is plainly contrary to the regulation that medical services should be provided for all of those categories of individuals.

Dr. Burrows' testimony on reception centers at Questions #7 through 11 was both in conformance with the regulatory requirements and would have been appropriate and timely rebuttal to Mr. Callendrello's testimony (Tr. 21557-21563) had it been admitted. Applicants' counsel complained that the portable pulse height analyzer would have been raised earlier by SAPL. However, as SAPL's representative argued (Tr. 27657-57) Dr. Burrows offered that testimony to be helpful; there was no burden on SAPL to provide testimony to suggest part of the solution to the problems Dr. Burrows identified in the reception center operation.

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border as regards advising reception center personnel on  
referrals.

Dr. Burrows' testimony at Question #12 was offered to respond to the Applicants' announcement on April 13, 1989 during the hearings that 4 more monitoring stations would be added at each reception center and to rebut the notion that that would be an adequate solution.

The Board did consider taking up sua sponte the issue of the capability of the RHA and the plan to assure that evacuees at reception centers who could be benefitted by medical treatments would get them (Tr. 27692-27702), but decided not to and instead asked the Applicants for a commitment to review Dr. Burrows' suggestions.

Question #3 through #6 of Dr. Burrows' testimony challenged the adequacy of FEMA Guidance Memorandum MS-1 as reflected by Applicants' witnesses' statements through their direct testimony. The Applicants objected to that portion of Dr. Burrows' testimony solely on grounds of lack of timeliness. (Tr. 27707) Applicants argued that this portion of Dr. Burrows' testimony should have been triggered by the filing of the FEMA Report.

This testimony was within the ambit of Contention JI-46. SAPL directly challenged the number of hospitals under agreement, the failure to specify the services hospitals under agreement could provide, and the failure to estimate the number of evacuees they could treat in the basis to SAPL Contention 5, which became a part of JI-46. SAPL holds that this testimony was offered timely because it was filed to rebut statements made under cross-examination by Applicants' witnesses Anthony Callendrello and

Michael Sinclair, and Massachusetts Attorney General's witness Dr. Kenneth Peele.

Mr. Callendrello indicated that the Joint Commission on Accreditation of Hospitals (JCAH) accreditation suffices to assure that medical facilities can handle contaminated injured patients because FEMA Guidance Memorandum MS-1 supports the idea that JCAH accreditation suffices for such assurance. (Tr. 21437) Dr. Burrows disputes this idea for the reasons stated in his testimony at Question #3. (See Attachment B).

Dr. Burrows' testimony at Questions #6 was to rebut testimony of Mr. Callendrello that the Applicants felt no further assessment other than compliance with FEMA's guidance was necessary to provide an adequate level of medical service emergency response for the Seabrook EPZ. (Tr. 21595-21598) In responding to Mr. Callendrello's assertion, Dr. Burrows' testimony does admittedly assail the efficacy of the FEMA guidance.

Dr. Burrows' testimony at Question #5 rebuts the testimony of Dr. Kenneth Peele that he thought board certified radiologists would be qualified to supervise a hospital response to a radiological emergency. (Tr. 23372)

Dr. Burrows' testimony at Question #4 was to rebut testimony in Applicants' Rebuttal Testimony No. 6 at p. 56, Mr. Sinclair's testimony at Tr. 21570, and the portion of Dr. Peele's testimony that initial treatment of contaminated injured evacuees can be handled by St. Joseph's Hospital. (Tr. 23322-23342).

Boards may exercise discretion as to the admissibility of rebuttal testimony.<sup>5</sup> Given the public safety implication of Dr. Burrows' testimony, whose credentials were, as the Board noted, "impressive" (Tr. 27701) the failure to admit his testimony was an abuse of discretion, and represents another use of a procedural technicality to sweep away a serious safety concern.

D. The Board Erred in Failing to Admit the Testimony of Dr. Jennifer Leaning

SAPL adopts the arguments advanced by the Massachusetts Attorney General in its brief as to this matter.

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<sup>5</sup>/In this instance, the testimony is styled "surrebuttal testimony" because the Applicants filed their case as rebuttal testimony, relying on the FEMA finding to rebut the Intervenor's direct case.

III. THE BOARD ERRED IN UPHOLDING THE FEMA REBUTTABLE PRESUMPTION AS TO THE ADEQUACY OF THE SPMC AND THE EXERCISE ON THE BASIS OF THE DONOVAN TESTIMONY,

Under 10 CFR §50.47(a)(2), a FEMA "finding will constitute a rebuttable presumption on questions of adequacy and implementation capability." In PID II, the Board upheld the FEMA finding against all challenges, relying on testimony of the sole FEMA witness, Mr. Richard Donovan. The Board erred in upholding the FEMA presumption on the basis of Mr. Donovan's testimony. Indeed, the entire issue of the credibility of FEMA's handling of the review of both the SPMC and the graded exercise was not properly dealt with by the Board.

SAPL will not here rehearse the extraordinary, and we believe unsavory, circumstances that led Mr. Donovan to be the sole FEMA witness in this proceeding. The fact is that, as SAPL has argued in its Brief on Appeal of PID I (March 21, 1989, p. 6-22), Mr. Donovan replaced Mr. Thomas as chairman of the Seabrook Regional Assistance Committee (RAC) because Mr. Thomas refused to accept the FEMA about-face on the adequacy of the NHRERP. Although FEMA's attorney conceded that FEMA's about-face was not based upon any new facts, it decided, following a meeting between top level FEMA officials, including associate director Grant Peterson, and top NRC officials, including former EDO Victor Stello, to find the NHRERP adequate. Having made a determination that the agency's position would change 180°, FEMA then removed Mr. Thomas from further responsibility for Seabrook reviews, and brought in a FEMA Region X official, Mr. Richard Donovan, to supervise all further Seabrook radiological planning reviews, and the graded exercise.

In the course of undertaking his responsibilities, Mr. Donovan did two extraordinary things which were never properly dealt with by the Board. First, he destroyed all exercise evaluators' records on the June 1988 exercise. Second, he made major alterations in the FEMA final exercise report, deleting or minimizing the the disclosure of problems that appeared in the draft report. The Board never dealt with the second matter, and dealt improperly with the first.

As to the first item, the Board simply states:

We were satisfied with Mr. Donovan's explanation that discarding such notes was his normal practice and that it was not inappropriate to do so. (PID II 1.68, Slip Opinion p. 34).

This is an extraordinary and cavalier resolution of a major issue.

Here we have a FEMA official, whose very role in the Seabrook case rose under controversial (and we believe highly suspicious) circumstances, destroying or discarding basic documentation which could test the adequacy of the Seabrook Graded Emergency Exercise. Moreover, this was done against a suggestion of agency counsel that it would be better to maintain the materials, and against the express request of an intervenor attorney. (See Attachment D, a letter from Diane Curran, counsel for NECNP to FEMA counsel H. Joseph Flynn, June 16, 1988.) It was done in a case in which Mr. Donovan certainly knew that emergency planning was extraordinarily controversial, and where Mr. Donovan clearly knew the results of the graded exercise were going to be vigorously contested in an adjudicatory hearing. Nonetheless, having this knowledge, Mr. Donovan unilaterally decided to make unavailable any documents

that could be used to probe either the integrity or the accuracy of the FEMA review of the exercise. The idea that, in these circumstances, destruction of the underlying documents can be ignored as being "normal practice" will simply not wash. A negative inference from this amazing act, which was solely due to Mr. Donovan's own decision, was required. Neither FEMA or NRC, should have the benefit of a FEMA rebuttable presumption in the circumstances of this case. (In other portions of PID II, the Board broadly insinuates that the Commonwealth of Massachusetts' position should be undermined because it did not produce its own emergency planning officials as witnesses, but rather relied extensively on consultants. In so doing, the Board reveals once again its bias and hostility toward the parties opposing the license, since no such adverse inference was brought against FEMA for the extraordinary act of destroying or discarding the underlying documents that would permit a test of the validity of FEMA's conclusions regarding the graded exercise.)

Second, due to the decision to "expedite" the proceeding, the Applicants arranged to send out a draft FEMA exercise report to the Seabrook parties. The draft report was sent out under date of August 2, 1988. (Tr. 22084) At the hearing, it became apparent that Mr. Donovan had not intended this draft report to be made available to the Seabrook parties. (Tr. 22151)

Interestingly, the final report, which Mr. Donovan always intended to be made available to all the parties, and which pursuant to a commitment made to the NRC, was sent out under date of August 1, 1988, revealed numerous deletions and changes which

appear to minimize problems that had appeared in the draft report.

There were substantial differences between the draft report and the final report. (Applicants' Exhibit 43F) The draft included the times to complete bus routes and revealed that some bus routes took very long times to complete, including one transit-dependent route that took 2 hours and 11 minutes. Completion times were entirely deleted in the final report. (Tr. 22112) The reference to a bus driver being in an accident, forcing another vehicle off the road, which is found in the draft report, was deleted in the final report. (Tr. 22134) The draft report describes a certain run as "completed with controller intervention (on second attempt). Returned once to Rockingham TSA [transportation staging area] after getting lost and calling TSA." In the final report the only description of this bus run is "completed with controller intervention." (Tr. 22121) A draft report description of a run as "completed (much confusion over maps--missed many turns)" is transformed, in the final report, into simply "completed." (Tr. 22140)

There are also certain routes listed in the draft reported as "uncompleted", but which appear in the final report as completed. (Tr. 22152) Since all the evaluator documents dealing with the exercise were discarded, and hence unavailable, or were withheld on a claim of executive privilege, there was no way for SAPL, or anyone else, to know if the final report, on which FEMA based its finding that the graded exercise demonstrated adequate capability

to implement the plan, had been "cooked", or whether the draft was actually in error, as Mr. Donovan claimed. (See Tr. 22152, and Mr. Donovan's explanation at Tr. 22154-62, in which the witness first claims that the documents existed, but were subject to executive privilege, then appears uncertain as to whether the documents are available.)

In conclusion, SAPL believes that the Licensing Board erred in crediting the testimony of Mr. Donovan, as providing a basis for accepting the rebuttable presumption of FEMA's "reasonable assurance" finding.

IV. THE BOARD ERRED IN HOLDING THAT THE USE OF A 20 PERCENT PLANNING STANDARD FOR THE SPMC RECEPTION CENTERS WAS APPROPRIATE UNDER THE DOCTRINE OF RES JUDICATA

In PID I, the Licensing Board upheld the use of a 20 percent planning standard for the Reception Centers, based on the so-called "Krimm Memorandum". This decision was upheld in ALAB-924 because, this Appeal Board reasoned, there were deficiencies in SAPL's advocacy regarding the issue. Specifically, the Appeal Board found that SAPL's expert witness had not sufficiently challenged the 20 percent standard, and SAPL's cross-examination was insufficiently probing, notwithstanding the Appeal Board's decision in ALAB-905 that the FEMA guidance set forth in the Krimm Memorandum was inadequate on a generic basis.

However, in PID II, the Licensing Board held that the 20 percent guidance it had found acceptable in PID I would be res judicata for the entire EPZ, and applied its earlier decision to bar litigation of the adequacy of the 20 percent standard by any party to the SPMC litigation. (PID II, 9.49, Slip Opinion, p. 384)

This was clear error. Not only was the use of the 20 percent standard challenged in the NHRERP proceeding, as the Licensing Board conceded, its use as a generic basis was held invalid in ALAB-905. Thus, this guidance was certainly subject to challenge in the SPMC litigation. Even if one were to assume that SAPL could be prevented from prevailing in its challenge to the 20 percent standard because of the claimed inadequate direct testimony or cross-examination in the NHRERP proceeding (a matter

SAPL disputes) it could not thereby be precluded from raising such a challenge in the SPMC proceeding. The SPMC proceeding was a different hearing, initiated by the filing of new contentions, and on which SAPL should have had an opportunity to again present evidence, and conduct cross-examination, on the adequacy of utilizing the Krimm Memorandum to determine the appropriate planning standard for the Reception Centers. Because of the Board's res judicata ruling, SAPL was precluded from any such opportunity, and hence denied a fair hearing, and an opportunity to establish a material inadequacy in the SPMC.

This was clear as to SAPL. It is even more clearly error as to the other parties to the proceeding. Even if SAPL's advocacy was correctly held by the Appeal Board to be sufficiently deficient to eliminate its challenge to the 20 percent planning standard as to the NHRERP, notwithstanding the decision in ALAB-095, there is no basis on which other parties, such as the Massachusetts Attorney General or the New England Coalition on Nuclear Pollution, could be precluded from challenging the 20 percent standard as to the SPMC, since it was not their claimed advocacy deficiencies that had led the Board to uphold the use of the 20 percent standard in PID I.

In short, there is absolutely no basis for the Licensing Board's ruling that the decision on the appropriate use of the 20 percent planning standard would be res judicata, and could bar a litigation challenge to that guidance in the SPMC litigation.

## CONCLUSION

The Licensing Board's November 9 decision continues to betray the bias and hostility, indeed outright dishonesty, of the Licensing Board chaired by Administrative Judge Ivan Smith. Serious safety issues are swept away on the theory that those parties urging their resolution deserve to lose because they have the "bad" motive of wanting to defeat the licensing of Seabrook.

The procedural complexity of the case has reached a point where only a medieval scholar could possibly discern any underlying rationality.

The Seabrook licensing is a travesty and an injustice. No matter how bizarre and complicated the procedures the Licensing Board creates, and no matter how hard it tries to defeat intervenor hearing rights, the fact remains that the problems at Seabrook are not caused by the intervenors, but are the result of ineluctable facts concerning the site, the road network and the at-risk population.

The fact remains that no adequate evacuation plan for Seabrook's 10-mile Emergency Planning Zone has ever existed, and no amount of factual obfuscation or procedural manipulation can change the facts.

SAPL entered this proceeding hoping to prevail. It is evident that SAPL cannot prevail, not because the facts do not justify prevailing, but because justice is simply not available in the NRC, which is far more determined to license the plant than it is to ensure that it actually treats safety as its "first, last

and permanent consideration." Power Reactor Development Corp. v. Electrical Union, 367 U.S. 396 (1961).

Respectfully submitted,  
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CERTIFICATE OF SERVICE

DATED: January 24, 1990

I hereby certify that copies of the within brief have been forwarded this date by first-class mail, postage prepaid to the parties on the attached service list.

  
Robert A. Backus, Esquire

ATTACHMENT A

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before the Administrative Judges:

Ivan W. Smith, Chairman  
Dr. Richard F. Cole  
Kenneth A. McCollom

In the Matter of

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

Docket No.  
50-443-OL  
(Off-site EP)  
April 3, 1989

TESTIMONY OF CAPTAIN DANIEL BRETON AND  
JOHN VAN GELDER, FIREFIGHTERS FOR THE TOWN OF  
SALEM, NEW HAMPSHIRE ON BEHALF OF THE SEACOAST  
ANTI-POLLUTION LEAGUE, REGARDING SAPL CONTENTION  
EX-12 (RECEPTION/DECONTAMINATION CENTERS)

Seacoast Anti-Pollution League  
By its attorney,  
BACKUS, MEYER AND SOLOMON  
116 Lowell Street  
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SUMMARY OF TESTIMONY

In their testimony, Captain Daniel Breton and Firefighter John Van Gelder testify on issues raised by SAPL Contention EX-12 as to the lack of adequacy of the reception and decontamination center emergency response functions in the host community of Salem, N.H., as revealed by the June 1988 graded FEMA exercise. Captain Breton and Firefighter Van Gelder testify that due to inadequate manpower, infrequent training, lack of coordination, conflicting duties and overall confusion, the exercise in no way indicated the capability to respond to a real radiological emergency at Seabrook Station.

Captain Breton and Firefighter Van Gelder further state that because there was training immediately prior to the exercise, prior notice of the general timing of events, and only a few "evacuees" run through the facility relative to the numbers that might need to be served, the exercise, confused and inadequate as it was, did not provide a true picture of events as they would occur in a real emergency situation. They conclude that the exercise as it transpired on June 28, 1988 did not indicate an adequate emergency response capability in the host community of Salem in the event of a radiological emergency at Seabrook.

TESTIMONY

1. Q: Would you each please state your full name and occupation?

A: John William Van Gelder, Firefighter, Salem New Hampshire Fire Department.

A: Daniel Louis Breton, Captain, Salem New Hampshire Fire Department.

2. Q: How long have each of you been in your positions with the Salem Fire Department?

A: (Van Gelder) I started with the Salem Fire Department in January 1975, left in January 1982, and was rehired on July 5, 1983. I have served on the department from July 1983 to the present.

(Breton) I started in July 1972 and have almost 17 years with the department.

3. Q: Would you please describe your job responsibilities?

A: (Van Gelder) My job responsibilities are primarily EMS work and firefighting.

(Breton) I am responsible for supervising a shift of the Fire Department which consists of 15 men at 2 substations and the central station. I am the incident commander while I am on duty and would be in charge of the response to a fire or EMS type of incident.

4. Q: How many firemen are there in the Salem Fire Department?

A: (Van Gelder) 40 firefighters, 16 lieutenants and 4 captains.

5. Q: Did both of you participate in the graded Federal Emergency Management Agency (FEMA) exercise of the emergency response plans for Seabrook Station conducted in June 1988?

A: (Breton) Yes. I was the shift commander that day.

(Van Gelder) Yes. I was there as the union advisor to work along with Chief Donald Bliss.

6. Q: What is your understanding of the functions that the Salem Firefighters are supposed to perform during a radiological emergency at Seabrook?

A: (Breton) My understanding is that the Salem Fire Department and the firefighters on duty are supposed to be responsible for setting up and operating a reception and decontamination center for people possibly exposed to by products of a nuclear accident at Seabrook that would include the responsibility for decontaminating anybody who was contaminated.

7. Q: How many Salem firefighters actually participated in the June 1988 graded exercise?

A: (Van Gelder) A total of 15 Salem firefighters. They were all on-duty firefighters; no off-duty firefighters responded.

8. Q: Would off-duty firefighters respond to a Seabrook emergency in your opinion?

A: (Van Gelder) Currently no Salem on-duty or off-duty firefighters are obligated to respond. We have a Memorandum of Agreement dated June 21, 1988, which states at paragraph 2 as follows:

The Town agrees that it will not require local 2892 members to participate in radiological/decontamination training, exercises and operations after June 28, 1988 until an agreement has been reached between the parties.

Even before the Memorandum of Agreement was in effect, no off-duty firefighters responded to the two prior drills even though they would have been paid time and a half. We will have to negotiate with the town and the town in turn has to reach an agreement with the state.

9. Q: Were any mutual aid firefighters present from other communities at the exercise?

A: (Van Gelder) Yes, there were approximately 15 firefighters from out of town. Including Salem and the mutual aid personnel, there were a total of approximately 30 firefighters.

10. Q: ~~To your knowledge, have mutual aid firefighters received training to respond to a radiological emergency at Seabrook Station?~~

A: ~~(Van Gelder) The day we had the exercise, June 28, 1988, I contacted the Deputy Chief from the Windham Fire Department and as of that date they were not trained. I also talked to someone in Pelham and Pelham firefighters also were not trained as of that date. As far as the other mutual aid towns are concerned, I am not sure of the answer to that question.~~

11. Q: Where is the Reception/Decontamination Center located in Salem?

A: (Breton and Van Gelder) At Salem High School on Geremonty Drive.

12. Q: ~~How many evacuees have you been told you should be prepared to expect at the facility?~~

A: ~~(Van Gelder) I have been told 3600.~~

~~(Breton) At meetings we have had I have heard anywhere from 3500 to 10,000. What figure is accurate I don't know. I have heard all different figures at different stages. I don't know today how many we are supposed to be able to receive.~~

13. Q: ~~How many firefighters would you expect would report if there were an emergency at Seabrook at any point in the future?~~

A: ~~(Breton) The response would consist of 15 on-duty firefighters.~~

~~(Van Gelder) The 15 on-duty firefighters may be requested to respond but would not be obligated to respond at the present time. Further, those 15 firefighters could not all be tied up at the reception center since they would be responsible for protecting the rest of the~~

community. Some of the firefighters have told me that even if they were on duty, they would go home sick and take care of their families.

14. Q: Were personnel given training just prior to the exercise?

A: (Van Gelder) On June 9, 1988 we had a practice exercise, which we videotaped, and things went roughly the same on June 28, 1988. The group that was on duty for the June 28 exercise had a class two days beforehand and were trained in what they were supposed to be doing. In a real situation it is not likely that there would have been training just two days before and I do not think that things would even go as well as they did on June 28. The June 28 performance was totally inadequate for a real evacuation.

15. Q: What portions of the exercise were you there for?

A. (Breton) I was there at the beginning to set things up but I was not there for the monitoring and decontamination.

(Van Gelder) I was there for the whole exercise.

16. Q: Was this an adequate exercise for what Salem firefighters are expected to handle?

A: (Breton) No. I just feel it was terribly inadequate, grossly inadequate for what we are expected to handle. In the first place, there is not enough manpower. There is also not enough coordination. Our scope is extremely limited. I did the best I could with the 15 people that I had. We have to take our time because we don't do this every day. We have to unload the truck and everybody has to be refreshed as to where to go. There were a lot of people observing and looking around, but not a lot of people responsible for carrying out the exercise. In essence, we just don't have the manpower to pull it off the way it should be pulled off.

(Van Gelder) I agree totally.

17. Q: Were you able to get all the equipment in place?

A: (Breton) When I left all the equipment was not in place. All the equipment was not off the truck. There was a lot of confusion about the materials coming off the truck with respect to the different kits. Any particular station might have 3 to 4 kits and some of the kits needed at the station might be in the front of the truck and others in the back of the truck. It takes an enormous amount of time to coordinate the material. There was a lot of confusion.

18. Q: Did anybody seem to have a command of the central coordination of the facility and how it was supposed to be set up?

A: (Breton) No. There seemed to be as much confusion among the people supposed to be "in charge" as with us. A lot of time I spent there dealt with just emptying the truck. It was just ridiculous, materials scattered all over the place, even though the truck was supposed to have been reloaded and better organized than it was at the non-graded exercise that was supposed to prepare us for this graded one. What we had requested be done in loading the truck evidently was not done.

~~19. Q: Given the training that Salem firefighters have had in monitoring and decontamination, and given the frequency of that training, do you think the firefighters will be able adequately to recall and use that information in a Seabrook Station emergency?~~

~~A: (Breton) The training was adequate for me at the time, but we don't get the training often enough to be efficient over a period of time. In other words, I can retain the information from classes for a short period of time, but after a week or two weeks or a few months, I can't remember the finer points or specifics about the monitoring procedures. Even though I have some background in this area I do have difficulties,~~

so I am concerned that ~~my men are not able to pick up this material as quickly due to lack of background training.~~

20. Q: ~~Most of the firefighters have not had any other training background in this area?~~

A: ~~(Breton) No, they haven't. Some of the people have come to me and expressed that they do not understand and are not sure about what they are doing.~~

21. Q: What was your overall impression of the exercise?

A: (Breton) "Confusion" was the word of the day at the exercise.

22. Q: It is being represented to you that the following quotation appears in the Final FEMA Exercise Report on the graded exercise that occurred in June 1988 in paragraph 5 on p. 184:

The Salem facility was activated in a timely and effective manner. The assigned personnel performed as a team and demonstrated their knowledge of Emergency Plan Procedures for the necessary stations to be established throughout the facility. All necessary equipment and supplies were available and adequately demonstrated by the staff. The staff was knowledgeable in the procedures to establish and operate each function of the facility.

Do you think these statements accurately reflect what went on at the Salem High School on the day of the exercise?

A: (Van Gelder) I do not feel it accurately reflects what went on.

(Breton) I do not feel it's even close to an accurate description of what went on.

23. Q: For what reasons do you think the statement is inaccurate?

A: (Breton) I saw confusion and lack of coordination and people who did not know what they were doing.

24. Q: Did you think the ~~scope~~ of the exercise was reasonable?

A: (Breton) The scope of the exercise did not approach the number of people we're supposed to be capable of processing.

25. Q: Would you report if there were an actual radiological emergency at Seabrook Station?

A: (Van Gelder) No. I wouldn't and if I were on duty I'd go home sick and get my family out of town.

(Breton) I would serve only if I were on duty at the time. I would tell my family to leave town and go west at the emergency classification level before the one at which people are told to evacuate.

26. Q: Were you given prior notification of the time the Seabrook exercise was going to occur so you knew the general time frame to expect the beginning of events?

A: (Breton) We were told the exercise was going to take place and we were informed of approximate times certain things might happen. We had an idea of the time the EOC was going to be activated and we also knew the approximate time when the reception/decontamination center would be activated. It was no secret.

27. Q: Did this prior notification help your response be more efficient than it might otherwise have been?

A: (Breton) Sure it did. But I wouldn't term the performance "efficient".

28. Q: How long did it take them to set up for evacuees to come through the facility?

A: (Van Gelder) A lot of the evacuees were standing outside the doorway for a couple of hours waiting to get inside. A lot of the buses that showed up later in the day were just turned around and sent back.

29. Q: During the exercise, were there any other impediments to proceeding smoothly along?

A: (Breton) Yes. We still had to take care of the emergency calls for our own town. That's real life. There were a combination of various ambulance or EMS calls and fire calls. We responded to those as we normally would. Our department averages about 10 emergency calls per day.

30. Q: Of the 15 Salem fire personnel on duty on the day of the exercise, how many reported to the reception/decontamination center?

A: (Van Gelder) Twelve people.

31. Q: What was the time the reception/decontamination facility was supposed to be opened?

A: (Van Gelder) According to the Daily Communications Log for June 28, 1988 (attached to our testimony), at 12:58 there was a telephone call to our dispatch center. It was the Assistant Chief requesting that the Fire Chief have the reception center ready for 1500 hours, which is 3:00 PM.

32. Q: What time was the reception/decontamination operation open to admit evacuees?

A: (Van Gelder) According to the log, at 16:32, the Chief requested that the EOC be notified of the opening of the decontamination and reception areas, and at that time the EOC was advised of that. At 16:34, we had a report of a fire at 15 Henry Street.

33. Q: How many firefighters did the fire call at 16:34 call away from the reception/decontamination center?

A: (Van Gelder) Nine of the twelve Salem firefighters that were at the Salem High School left to report to the fire call, leaving only three

Salem firefighters and the mutual aid personnel there to carry on the operation. If it had been a call for the south end of the town, everyone at the high school from Salem Fire Department would have had to leave to report to the fire call.

34. Q: Does this conclude your testimony?

A: (Van Gelder) Yes.

(Breton) Yes, it does.

**ATTACHMENT B**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before the Administrative Judges:

Ivan W. Smith, Chairman  
Dr. Richard F. Cole  
Kenneth A. McCollom

In the Matter of )

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

(Seabrook Station, Unit 1) )

) Docket Nos. 50-443-OL

) (Off-Site EP)

) June 26, 1989

SURREBUTTAL TESTIMONY OF BELTON A. BURROWS, MD  
ON ISSUES RE: MS-1 HOSPITALS, RECEPTION/  
DECONTAMINATION CENTERS AND FEMA (GM) MS-1 GUIDANCE

Seacoast Anti-Pollution League  
By its attorney,  
BACKUS, MEYER & SOLOMON  
116 Lowell Street  
P.O. Box 516  
Manchester, N.H. 03105

1. Q. Would you please state your name, current positions and relevant experience?

A. My name is Belton A. Burrows, MD. I am currently Chief of Nuclear Medicine at the Boston VA Hospital and Research Professor of Medicine at Boston University School of Medicine. I have worked with both research and clinical applications of radionuclides for 40 years.

2. Q. Have you reviewed materials related to the radiological emergency response plans for Seabrook Station?

A. Yes, I have. I have reviewed sections of the Seabrook Plan for Massachusetts Communities (SPMC) related to Reception/Decontamination Centers, SPMC Implementing Procedure 2.9 "Radiological Monitoring/Decontamination", SPMC Implementing Procedure 3.4 "Monitoring Trailer Activation and Deactivation", and FEMA Guidance Memorandum (GM) MS-1, Medical Services, dated November 13, 1986. I have also reviewed pages 52-64 of the Applicants' Rebuttal Testimony No. 6 (Protective Actions for Particular Populations) and Applicants' Rebuttal Testimony No. 17 (Radiological Monitoring Process).

3. Q. Taking up first the subject of the FEMA Guidance Memorandum (GM) MS-1 Medical Services, do you agree with the statement that Joint Commission on Accreditation of Hospitals (JCAH) accreditation suffices to assure that medical facilities have adequate technical information, professional support and treatment capabilities for handling "contaminated injured" individuals?

A. No. JCAH accreditation in and of itself does not suffice to provide assurance that a hospital will be prepared to offer such services. The

reason for that is that a hospital can obtain JCAH accreditation even if it does not have its own Nuclear Medicine Service as long as that hospital has an agreement with another hospital that does have a Nuclear Medicine Service which is accredited to provide such services.

4. Q. Is having one physician and one nurse on call within about 2 hours at both an MS-1 hospital and back-up hospital, who can supervise the evaluation and treatment of radiologically "contaminated injured" members of the general public, a strict enough planning requirement for assuring medical treatment preparedness for nuclear plant accidents?

A. No. I do not think it is sufficient. I believe that that is a level of preparedness that does not approach what is reasonably attainable. Further, I think that the expertise of the medical staff needs more definition.

5. Q. Does the fact that a physician is a board certified radiologist qualify him or her to supervise a hospital response to a radiological emergency?

A. That cannot necessarily be assumed. It could be that a particular individual with such certification might be sufficiently knowledgeable, but the title "board certified radiologist" does not assure that the person holding such title is equipped with specific enough knowledge of radiobiology and radionuclides for handling radiological emergencies.

6. Q. Do you believe that two MS-1 hospitals provide a sufficient level of planning on the Massachusetts side of the border for a site like the Seabrook site?

A. No. Even if only 10% of the estimated number of evacuees were referred

from the Reception Centers to the two designated MS-1 hospitals, it would overtax those facilities as they are described in the Applicants' testimony. From the population estimates it is clear that two hospitals would not be sufficient.

The FEMA document (GM) MS-1 does not provide sufficient guidelines for the number and capabilities of hospitals. Simply requiring an agreement with two hospitals does not alone provide a meaningful planning standard.

7. Q. Moving on to the issues regarding the Reception/Decontamination Centers, do you have specific concerns about them?

A. I am concerned that the plan does not have trained medical personnel there to make referrals for further treatment when needed. I believe that each individual who has suspected contamination needs medical follow-up services since one cannot rule out the possibility of significant body burdens with only a surface scan. The surface scan serves the important function of indicating that an individual has been exposed to excess environmental radioactivity, but further checking of an individual is called for if there has been a contaminating release.

8. Q. Does the Applicants' plan to register the evacuees at the Reception/Decontamination Centers for inclusion in a tracking program alleviate your concerns in that regard?

A. No. It does not. It will require medical judgment based upon sufficient information to determine whether or not there is the necessity for immediate medical referral for individual evacuees. The possibility of internal body burdens must be addressed.

9. Q. What could be done to improve the Reception/Decontamination Centers to address the concerns you have raised?

A. Each Reception/Decontamination Center should have a portable pulse height analyzer with a sensitive sodium iodide detector so that the radionuclides making up the contamination can be identified and treatment planned accordingly. Using spectral analysis, one can determine which radionuclides are making up the contaminants' "fingerprints". If chelation or other therapies are advisable given the results of the analysis, they should be instituted within as little as an hour or so.

10. Q. Would you expect body burdens in a radiological emergency where contaminants escape from the plant in a plume?

A. Yes, I would. Even ruling out the ingestion of contaminated water and foodstuffs, one would still expect internal body burdens due to inhalation and skin absorption.

11. Q. What if only noble gases were released in an accident? Would that not relieve your concerns about internal body burdens?

A. No. Certain of the decay products of noble gases can pose a biological hazard. Certain radionuclides of Xenon, for example, decay to Cesium, an element which is a biological analogue of potassium. Cesium 137, with a 30 year half-life, constitutes 18% of the long-lived fission products and because of its biological and physical properties may present a radiation hazard significantly greater than conventional dosimetry would suggest.

12. Q. Putting aside your concern about internal body burdens, do you believe that the Reception/Decontamination Centers as they are presently set up under the plan could monitor approximately 8300 evacuees in a 12 hour time frame even if 4 more monitoring stations were added?

A. Based on my experience, I cannot imagine how the logistical problems presented by an unselected mixed population of this size arriving at one of the Decontamination facilities described in the Applicants' testimony could be dealt with in this kind of a time frame. It seems highly unlikely that such a large group could be successfully monitored within 12 hours in the facilities described by the Applicants in their plan and testimony.

13. Q. Does that conclude your testimony?

A. Yes, it does.

CURRICULUM VITAE

Name: Belton Allyn Burrows  
Born: March 3, 1918  
Married: Dorinda McKenzie Burrows  
Children: Six  
Address: 50 Edgehill Road, Brookline, Mass. 02146  
  
Degrees: A.B. Yale, 1939; M.D. Columbia, 1943

Membership in Scientific and Professional Organizations:

American Association of University Professors  
American Board of Internal Medicine  
American Clinical and Climatological Association  
American College of Physicians  
American Federation for Clinical Research  
American Society for Clinical Investigation  
American Society of Nephrology  
American Thyroid Association  
Endocrine Society  
Massachusetts Medical Society  
New York Academy of Science  
Norfolk District Medical Society  
Society of Nuclear Medicine  
American Board of Nuclear Medicine

Hospital Appointments:

Intern, New Haven Hospital, July 1943 - April 1944  
Asst. Resident in Medicine, New Haven Hospital,  
July 1946 - June 1947  
Asst. Resident, Evans Memorial - July 1947 - June 1948  
Life Insurance Medical Research Fund Fellow,  
Evans Memorial, July 1948 - June 1950  
Asst. in Medicine, Boston City Hospital, August 1948 -  
Assoc. Visiting Physician, University Hospital  
(Mass. Memorial) June 1950 -  
Member, Evans Memorial, June 1950 -  
Senior Physician, Radioisotope Unit, Cushing VA Hospital  
Framingham, Mass., June 1950 - Sept. 1952  
Senior Physician, Radioisotope Unit, Boston VA Hospital  
October 1952 - November 1953  
Chief, Radioisotope Service, Boston VA Hospital  
November 1953 -  
Acting Director, Nuclear Medicine Service, Veterans  
Administration Central Office, Sept. 1967 - 1973

## Military Service:

1st Lieutenant - April 1944 - June 1945  
Captain - July 1945 - June 1946, Finney General Hospital;  
Thomasville, Georgia; Hoff General Hospital,  
Santa Barbara, California; 252nd General Hospital;  
1st General Hospital; 126 1st Engineer Combat  
Battalion; 1173 Engineer Combat Group; Post  
Surgeon, Engineer School, European Theatre.

## Academic Appointments:

Asst. in Medicine, Yale Medical School  
July 1943 - April 1944  
Asst. in Medicine, Yale Medical School  
July 1946 - June 1947  
Asst. in Medicine, Boston University School of Medicine  
July 1947 - February 1950  
Instructor in Medicine, Boston University School of Medicine  
February 1950 - June 1950  
Asst. Professor of Medicine, Boston University School of  
Medicine, June 1950 - June 1957  
Assoc. Professor of Medicine, Boston University School  
of Medicine, June 1957 - June 1965  
Research Professor of Medicine, Boston University School  
of Medicine, July 1965 -  
Consultant, Lemuel Shattuck Hospital, Jamaica Plain, Mass.  
June 1955 -  
Consultant, Framingham Union Hospital, Framingham, Mass.  
1960 -

## Other:

Member, Scientific Advisory Committee, New England  
Primate Center, 1965 - 1973  
Member, Scientific Medical Foundation, Boston, 1966 - 1973  
Trustee, Society of Nuclear Medicine, 1964 - 1972  
Editor, Journal of Nuclear Medicine, June, 1970 - 1975  
Consultant, Nuclear Regulatory Commission, 1977 -

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June 1974

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## ATTACHMENT C

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- C. Notify the Radiological Health Advisor.
  - D. Contact the MS-1 hospital and inform them of the injury and status of contamination.
  - E. Arrange for the transport of the contaminated, injured individual, through the use of the ambulance on standby. Send copy A of Attachment 1, Personnel Contamination Report, with the injured individual.
- 5.2.16 When individuals have contamination which cannot be removed after three decontamination attempts or are suspected of having internal contamination (e.g., individuals with facial skin contamination).
- A. Arrange for the individual to be transported to one of the hospitals listed in Appendix M, NNY Offsite Response Emergency Resource Manual.
  - B. Notify the Radiological Health Advisor.
  - C. Ensure that individuals take Copy A of Attachment 1 with them to the hospital.
- 5.2.17 Inform the Radiological Health Advisor when evacuees have stopped arriving at the Monitoring Trailers.
- 5.2.18 When directed by the Radiological Health Advisor to deactivate the facility, do the following.
- A. Direct Monitoring/Decontamination personnel to survey all equipment for contamination and to return clean equipment to its proper location.
  - B. Attempt to decontaminate equipment as necessary.
  - C. Bag and tag equipment with fixed contamination, and set aside in a controlled area.
  - D. Perform self monitoring.
  - E. Ensure that all battery-operated equipment is set up for recharging, or batteries are removed.
  - F. Ensure that all contaminated material other than waste water is bagged, tagged, and placed in a controlled area.

ATTACHMENT D

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TELEPHONE  
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BY OVERNIGHT MAIL  
June 16, 1988

H. Joseph Flynn, Esq.  
Office of General Counsel  
Federal Emergency Management Agency  
500 C Street S.W.  
Washington, D.C. 20472

SUBJECT: Seabrook Emergency Planning Exercise

Dear Joe:

I am writing to remind you of my outstanding requests for information regarding the upcoming emergency planning exercise. I would like to get the requested information and resolve any differences between us by Monday, so that there is time to seek assistance from the Licensing Board if that becomes necessary.

First, I asked you to confirm the dates of the exercise. Last week, I got the date of June 27th from you, and June 28th and 29th from one of the intervenors. Who is correct?

Second, I asked if FEMA would provide us with free play messages, by telephone or otherwise, concurrently as they are transmitted from FEMA controllers in the field to the EOC. Without these messages, it will be impossible for observers in the EOC to tell what field conditions FEMA is injecting into the accident. As you may know, PSNH is severely restricting the number of people that we can have observing the actions at the EOC; and we cannot expect to be able to figure out what is going on by overhearing snippets of telephone conversations.

While I understand that the messages will be injected from the field, I presume that they come from a preconceived script that will be held by a FEMA official at some central location. Perhaps you could have that person call a designated Intervenor at the appropriate times.

In addition, I have asked you to retain all charts, notes, drafts of reports and comments prepared in connection with the exercise. While I understand that you may ultimately dispute the discoverability of these documents, I nevertheless continue to seek their preservation until the time that their discoverability is resolved.

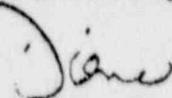
H. Joseph Flynn  
June 16, 1988  
Page 2

I hope we can reach agreement on these remaining issues early in the week. If we are unable to resolve our differences, I plan to seek reconsideration of our motion by the Licensing Board. The Board's ruling that it lacked jurisdiction to entertain the motion was apparently based on its view that discovery was being sought solely for the purpose of preparing contentions. As I discussed in the motion, however, the exercise has a bearing on several of the contentions on the New Hampshire RERP that are still pending. In the likely event that the record is reopened to take FEMA's additional testimony on the effect of the exercise on its findings regarding personnel adequacy, special needs transportation, and reception centers, it will be very important for the Intervenor to have conducted a meaningful observation of the exercise.

Finally, I understand that FEMA plans to hold the public post-exercise meeting on Saturday, July 2. Since that day falls smack in the middle of the 4th of July holiday weekend, the meeting is not likely to get the kind of attendance or attention it deserves. There does not appear to be any good reason for FEMA's haste. While Guidance Memorandum EX-3, at Section II.C.4, suggests that the public meeting be held "soon" after the exercise, it also appears to contemplate that enough time will have passed to allow FEMA to make an initial evaluation of the exercise. It is hard to believe that on the second day after the exercise, FEMA will have had the opportunity to digest to any degree the observations of over 160 observers! I urge you to reschedule the meeting to a non-vacation time when local residents are more likely to be able to attend. The meeting should be held soon after the exercise, but not so soon that FEMA is unable to provide the public with a meaningful evaluation of the exercise.

I will be calling you on Monday to discuss these matters.

Sincerely,



Diane Curran

cc: Allan Fierce

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