9729

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



ATOMIC SAFETY AND LICENSING APPEAL BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Thomas S. Moore
Howard A. Wilber

| | |
|---|---|
| In the Matter of | Docket Nos. 50-443-OL |
| | 50-444-OL |
| PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, ET AL. | (Off-Site EP) |
| (Seabrook Station, Units 1 and 2) | January 24, 1990 |

TOWN OF NEWBURY'S BRIEF ON APPEAL OF THE PARTIAL INITIAL DECISION OF THE SEABROOK PLAN FOR MASSACHUSETTS COMMUNITIES LBP-89-32

Town of Newbury

R. Scott Hill-Whilton
Lagoulis, Hill-Whilton & Rotondi
79 State Street
Newburyport, MA 01950
(508) 462-9393





DS03

TABLE OF CONTENTS

## TABLE OF AUTHORITIES

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Thomas S. Moore
Howard A. Wilber

| | |
|---|---|
| In the Matter of | ) |
| PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, ET AL. | ) |
| (Seabrook Station, Units 1 and 2) | ) |

## INTRODUCTION

This brief is submitted by the Town of Newbury ("TON") in support of its appeal of the Licensing Board's Partial Initial Decision [Seabrook Plan for Massachusetts Communities ("SPMC")], LBP-89-32 (November 9, 1989) ("PID").

This brief is divided into two parts. In Part I, TON will demonstrate that the Licensing Board erroneously rejected as inadmissible contentions which TON asserts should have been admitted into this proceeding for litigation. In Part II, TON will show that the Licensing Board a) made erroneous findings with respect to such an affect and b) erroneously failed to take into account -- indeed, ignored or summarily glossed over -- many serious impediments to an effective evacuation of Newbury.

TON has attempted in its brief to limit its arguments to issues unique or specific to it. It is TON's belief that other Interveners in this proceeding will do likewise in their briefs.

But to the extent that any other Intervener includes in a brief an argument or position which is relevant to any issue discussed in TON's brief, TON incorporates the argument of that Intervener by reference.

PART I - THE LICENSING BOARD ERRED IN REJECTING TON CONTENTION 9 (SHELTERING) AND THOSE PORTIONS OF TON CONTENTION 1 WHICH ADDRESSED SNOW REMOVAL

A. The Licensing Board erred in rejecting TON Contention 9.

TON submitted twelve numbered contentions which contained numerous subparts and bases.[1] TON Contention 9 asserted that:

> The SPMC fails to provide a reasonable assurance that adequate protective measures can and will be taken in the event of an emergency in that it does not provide reasonable assurance that sheltering is an adequate protective measure for Seabrook or provide adequate criteria for the choice between sheltering, evacuation or other protective measures, as required by C.F.R. 50.47(b)(10) and NUREG-0654, Rev. 1, Supp. 1, J.10.b. Nor does the SPMC include expected total protection afforded in residences or other shelters as required by NUREG-0654, Rev. 1, Supp. 1, J.10.m.
>
> Basis
>
> The SPMC relies on two protective actions for the public, sheltering and evacuation, but fails to provide anything other than the vaguest of criteria for determining which protective action should be undertaken in a given emergency. It provides no evaluation of the sheltering capacity of Newbury or the number of public buildings available for such use. Particularly with regard to Plum Island, where thousands of transient people may be situated at the time of an emergency, the SPMC is devoid of any data which provides a reasonable assurance that sheltering is realistic. Moreover, the SPMC provides no means of dealing with the realistic possibility that the owners of buildings normally open to the public will not allow their buildings to be used as shelters or that such

---

1. See TOWN OF NEWBURY'S CONTENTIONS WITH RESPECT TO APPLICANTS' PLAN FOR MASSACHUSETTS COMMUNITIES, April 13, 1988.

potential shelters are constructed of materials which provide a sufficient level of protection.

The Licensing Board initially rejected the contention in its entirety, stating "matters identified in the basis are part conclusional and in part have been covered in prior litigation . . ."[2] The Licensing Board heard arguments concerning the rejection of this contention at its August 3 and 4, 1988 prehearing conference. It became clear during a portion of that hearing that the only conceivable aspect of the contention which had previously been litigated was that portion which asserted that owners of buildings might not open them for use as shelters, i.e. the "human behavior" aspect of the contention contained in the last sentence of the contention basis. Tr. 14606-14611. It was never asserted by anyone that the previous litigation addressed in any respect what the sheltering capacity of TON is, whether the structures available to be used as shelters in TON could be found to provide a reasonable assurance of adequate protection or how sheltering would be implemented. Id. Indeed, Applicants' counsel candidly stated that the SPMC drafters boldly made an "assumption" that the level of protection afforded by shelters in TON is the same as exists in New Hampshire. Tr. 14609.

The Licensing Board reconsidered its disallowance of the entire contention after the prehearing conference and allowed for

---

2. See MEMORANDUM AND ORDER PART II (Ruling on Contentions on the Seabrook Plan for Massachusetts Communities), 7/29/88, p. 36-37.

litigation the first sentence of the basis, striking the main contention itself and the remaining basis in their entirety.[3] This was error. Moreover, since the Licensing Board clearly found that sheltering is an available protective action - but the record is wholly inadequate to support a finding of its availability, suitability or implementability - the Board's findings in that regard lack evidentiary support.

TON Contention 9 simply and plainly asserted that the SPMC was deficient in that it failed to show that sheltering is an adequate protective measure, in failing to provide criteria for the choice between sheltering or evacuation and in failing to include expected total protection afforded in shelters. A portion of the rejected basis asserted that the SPMC provided no evaluation of the sheltering capacity of TON, the number of buildings available for such use or that of Plum Island in particular had sufficient sheltering capacity for the thousands of transients who visit the island.

It is well established that an acceptable contention and the reasonable specificity for a basis of a contention do not require detailing evidence in support of the contention either in the contention or the basis at the initial pleading stage. See, e.g., Houston Power and Lighting Co., (Allens Creek Nuclear Generating Station, Unit 12), ALAB-590, 11 NRC 542, 551 (1980); Mississippi Power and Light Co., (Grand Gulf Nuclear

---

3. See MEMORANDUM AND ORDER (Following Prehearing Conference), 8/19/88, p. 7.

Station, Unit 12), ALAB-130, 6 AEC 423, 426 (1976). Rather, at the initial pleading stage, a party need only allege the reason(s) for its concern that a particular emergency planning standard is not met; it need not, at that initial pleading stage, demonstrate "factual support for the particular assertions which they have advanced as the basis for their contentions." ALAB-590, supra 11 NRC at 551.

It is plain that the Licensing Board misapplied these standards in rejecting TON Contention 9 and that the contention in its entirety should have been admitted with the possible exception of the last sentence of the basis.[4] First, it is plainly evident that the availability, suitability and implementability of sheltering was being challenged as inadequate in the proferred contention. Second, it asserted that the SPMC provided no adequate criteria to be used in deciding whether to evacuate or shelter or, if sheltering were to take place, the buildings that would be used or the amount of protection that could be afforded thereby.

Offsite emergency response plans must provide for a range of protective actions and guidelines for the choice of protective actions during an emergency, consistent with federal guidance, must be developed. 10 C.F.R. 50.47(b)(10). The planning standards contained in the Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and

---

4. TON was not a party to the New Hampshire phase of this litigation and has never claimed to be aware of precisely what was, in fact, litigated in that proceeding.

Preparedness in Support of Nuclear Power Plants, NUREG-0654 FEMA-REP-1, Supp. 1, further provides that evacuation routes and alternatives for inclement weather must be provided, that shelter areas must be shown, that the bases for the choice of protective actions shall be included as well as the expected local protection afforded in residential units or other shelters. NUREG-0654 FEMA-REP-1, Supp. 1, II.J. TON Contention 9 squarely put these requirements in issue. It directly challenged whether the SPMC complied with these standards. It is inconceivable that any party, at the contention filing stage of this proceeding, was not put on notice of the concern of TON so that it could assert and prepare a defense to the contention.

Moreover, the scant testimony the Applicants presented on this point and the findings of the Licensing Board make it abundantly clear that the SPMC provides for no basis for finding that the protective actions or the bases for choosing between them is adequate. A review of the evidence plainly shows these facts.

For example, the only means of access to and egress from Plum Island is via the Plum Island Turnpike, a typical two land road. The road is established in a floodplain, crosses approximately two miles of tidal marsh and also a drawbridge which is approximately one-quarter mile in length which spans the

Plum Island River. TON DIR., ff. Tr. 17801 at 3, Tr. 17407.[5] That road becomes impassable due to flood waters as many as fifteen times per year and, in addition, ice cakes and other debris float onto portions of that road and other roads on Plum Island, rendering them impassable for that reason as well. TON DIR., ff. Tr. 17801 at 3, Tr. 17892. Although the impassability of these roads occurs normally in the winter, spring and fall, this has also occurred in the summer when as many as fifteen thousand people have been present on the island. Tr. 17884, 17894. Flood waters alone at times render Plum Island Turnpike impassable for up to seven hours. Tr. 17895. Large amounts of debris, such as tree trunks, huge ice cakes, even furniture and appliances, are also deposited on the roads and remain after flood or tide water recedes. This debris must then be removed and the roads remain impassable for as many as ten additional hours while this work is being done. Tr. 17899.

The Applicants and the Licensing Board recognized the obvious fact that it may accordingly be impossible to evacuate Plum Island. Applicants' answer to that problem is that they will, in that eventuality, "make the appropriate protective action recommendation" which "most likely" would be to shelter.

---

5. TON files herewith Exhibit 1 (TOWN OF NEWBURY'S AMENDED DIRECT TESTIMONY, February 19, 1989) and Exhibit 2 (TOWN OF NEWBURY'S PROPOSED FINDINGS OF FACT WITH RESPECT TO THE SPMC, August 14, 1989). The facts set forth in this brief are set out in complete detail in the exhibits. In addition, many of the factual assertions in this brief are based on Applicants' testimony.

Tr. 17382-17383. But as to the availability of shelters in the Parker River National Wildlife Refuge portion of Plum Island, for example, the amount of sheltering actually available wasestablished as being nothing more than a "six foot by six foot shack," Tr. 17383, for an area of the island six to seven miles in length. Tr. 17383-17384. It is painfully clear that the Applicants know full well that sheltering is simply not available and that it will not provide any reasonable assurance of adequate protection. In any event, the SPMC provides for no true range of protective actions for those on Plum Island as is evident in the fact that sheltering is plainly not a protective action that ever would or could be considered given its lack of availability. Moreover, the testimony of the Applicants cited above makes it certain that no criteria are set forth in the SPMC as to when and under what circumstances sheltering would be chosen over evacuation.

To compound matters, it is readily apparent that the Licensing Board fully recognized the existence of these problems and the absence of a real solution. In PID Finding 3.123, the Board states that the impassability of Plum Island Turnpike due to flooding "would be identified and considered in the early stages of an emergency and responses would be formulated, coordinated, and implemented with the appropriate governing bodies. If the roadway remained impassable at the declaration of a General Emergency, that fact would be considered in the PAR development process." TON is unaware of any other party to this proceeding alleging, as TON does, with respect to Plum Island,

that the impassability of one road would mean that a significant portion of a municipality could therefore not be evacuated. The Board thus ruled for the EPZ in general that localized flooding would simply require a rerouting of evacuation traffic. PID Finding 3.121. But the Board could plainly not adopt Applicants' generic solution to the impassability of roads when it came to Plum Island, so instead it simply accepted the Applicants' vague and illusory promise to consider that fact in making the PAR. The Board then failed to consider the lack of any record support for Applicants' claim that the most likely alternate protective action, sheltering, would result in a reasonable assurance of adequate protection.

Thus, the Licensing Board not only erroneously precluded TON from fully developing the failure of the SPMC to provide for an effective means of identifying shelters and implementing sheltering as a protective action, it compounded that error by glossing over that serious and very real problem by finding in conclusory terms without adequate factual support that the entrapment of hundreds or thousands of people on Plum Island would be somehow -- and we never learn how -- solved when a response is "formulated, coordinated and implemented" or when it is "considered in the PAR development process.[6]

---

6. The Board's findings with regard to Sheltering Option for PARs, PID 6.23-6.30, clearly do not solve these shortcomings. First, Finding 6.23 notes that the SPMC merely includes sheltering as a protective action available for the permanent population despite the Applicants' testimony that it also is an option for everyone on Plum Island. See *supra*. Second, the findings simply do not address many of the issues TON asserted in Contention 9.

It is especially clear that the Licensing Board's decision a) to reject TON Contention 9 and b) finding of adequacy as to sheltering constitutes reversible error in light of this Board's decision in Public Service Company of New Hampshire, ALAB-924, November 7, 1989 (slip opinion). There, this Board reversed the Licensing Board's finding of adequacy with regard to the New Hampshire Radiological Emergency Response Plan's ("NHRERP") means for providing sheltering as a protective measure. The record in this case makes it certain that the Licensing Board's finding here regarding the adequacy of sheltering are even less adequate than those rejected by this Board in ALAB-924.

In ALAB-924 this Board found that sheltering as a protective action was an option of "limited utility." Id. at 56. And in making that conclusion, this Board noted that an actual shelter study in New Hampshire had been conducted by the Applicant as to the number of shelters on the beach area there and the level of protection they typically afforded. Id. at 59-60. In contrast, the Applicants here merely "assume" that available shelters on Plum Island afforded the same level of protection as in New Hampshire. Tr. 14609. This Board accordingly upheld that portion of the Licensing Board's determination in the NHRERP proceeding that sheltering could be considered as a limited protective action but, importantly, this Board noted that such a finding depends "upon site-specific circumstances." Id. at 58 n.164 (emphasis add). TON maintains that no site-specific circumstances are present in the record in this case which would lead to the conclusion that sheltering may be considered even as

a limited protective action with respect to Plum Island in particular and the entire Massachusetts EPZ in general. The SPMC does not even identify where the shelters are to be located.

Moreover, the Licensing Board committed clear reversible error in failing to require that the SPMC provide implementation details for the sheltering option if it is to be employed. ALAB-924 at 58-59. The fact that the SPMC includes sheltering "speaks volumes about the need for appropriate implementing details." Id. at 63. Even a protective action which is extremely unlikely to be implemented must nonetheless be adequately planned for.[7] Id. at 65.

B. The Licensing Board Erred in Rejecting those Portions of TON Contention 1 to the Extent it Addressed Snow Removal.

TON contended, as did many Massachusetts EPZ municipalities, that the SPMC was deficient in 1) failing to adequately set forth the means by which the seasonal impassability roads due to snow would be addressed and 2) in failing to identify a contingency measure to deal with such

---

7. The fact is apparent that the Licensing Board regarded the likelihood of flooding resulting in road impassability as so remote as to not warrant true consideration. See, e.g. PID Finding 4.23. That finding ignores the record which established that Plum Island Turnpike becomes impassable due to flooding as often as fifteen times per year, Tr. 17884, as well as settled law on this point that "a possible deficiency in an emergency plan cannot properly be disregarded because of the low probability that action pursuant to the plan will ever be necessary." ALAB-832, 23 NRC at 155-156 (quoting Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 713 (1985) rev. declined, LLI-86-5, 23 NRC 125 (1986)).

impediments. TON Contention 1, Basis b. The Licensing Board rejected that contention basis. See MEMORANDUM AND ORDER - PART II, p. 32; tr. 14590-14595. TON asserts that the Board's rejection of that basis constitutes reversible error for the reasons set forth in the appeal brief of the Town of West Newbury filed herewith.

PART II - THE LICENSING BOARD ERRED IN FINDING THAT THE SPMC PROVIDED A REASONABLE ASSURANCE OF ADEQUATE PROTECTION WITH RESPECT TO THE SPMC TRAFFIC MANAGEMENT PLAN (J1-4) AND THE EVACUATION OF TRANSIT DEPENDENT PERSONS (J1-7 BUS ROUTES)

A. The Licensing Board Erred in Approving the Traffic Management Plan.

TON maintained before the Licensing Board that the SPMC's traffic management plan failed to provide a reasonable assurance that evacuation would result in a reasonable assurance of adequate protection. See Exhibit 1, pp. 3-13; Exhibit 2, pp. 2-12. As to TON's claim that additional TCP's should be required in the SPMC, TON incorporates herein the argument of TOWN.

B. The Board Erred in Finding that the Means of Evacuating Transit Dependent Persons is Adequate.

NUREG 0654 requires the SPMC to provide a means for relocating transit dependent persons with the EPZ. Id., II, J.10.g. TON asserted in its Contention 1 that the bus routes developed in the SPMC to meet this requirement were fatally flawed. The Licensing Board's consideration and rejection of TON's contention, some of which is generic to other EPZ communities, is likewise fatally flawed in 1) failing to adequately consider the effect the impassability of bus routes would have on an evacuation of the transit dependent and 2)

failing to provide an effective means of informing the transit dependent of any change in transit routes because of the impassability of roads to be utilized in the planned routes.

1. The Licensing Board Erred in Failing to Adequately Consider the Impassability of Evacuation Routes.

As noted in Part I, supra, Plum Island roads become impassable due to flooding and other causes as often as fifteen to twenty times per year. Tr. 17892. The Board incorrectly summarized TON's testimony to be that such impassability simply occurs during storms. PID Finding 4.6. Indeed, TON's testimony made it clear that such impassability, while frequently associated with storms, last for hours, long after storms may have ended and occurs in the spring and fall and even in the summer. Tr. 17884, 17894. The town has in fact been attempting for years to rebuild the Plum Island Turnpike because of that flooding problem. Tr. 17895. The height of the flood waters have reached such heights that it has been impossible for buses to traverse the road. Tr. 17905-17906.[8]

---

8. The Licensing Board minimizes the concerns in part by claiming that the bus routes, and TON bus Route 1, utilizing Plum Island Turnpike in traveling to and from the island, were initially developed "under the direction of MCDA and local municipalities." PID p. 182 n. 37. This is plainly an overbroad conclusion. No testimony was presented that TON "directed" the Applicants to prepare the bus routes that appear in the SPMC although one past official may have had some input into their drafting. Similarly, the rejection by the Board of the Interveners' assertion that the plans were rejected as inadequate since emergency planners had not rejected them does not withstand scrutiny. With respect to TON, one of its panel members, Angelo Machiros, chaired the town's evacuation committee. Lest there be any mistake or confusion, a brief review of his testimony makes its plain that he rejected the plan as inadequate.

The Licensing Board's rejection of these concerns is patently based in large part on its Finding 4.23 that the probability of flooding is highly unlikely. The Board unfortunately, throughout its findings dealing with bus routes, conveniently fails to mention the uncontradicted facts and realities concerning Plum Island, its roads and their flooding problems and, instead, merely refers to the probability of flooding as established by flood plain maps and statistical expectations.[9] Moreover, the Licensing Board's reliance on the flood plain maps used in this proceeding was erroneous for the reasons set forth in the appeal brief of TOWN -- the maps do not, as the Board found, show anything but where the 100 and 500 year flood plains are located. The Licensing Board 's additional finding that the rerouting of bus routes will eliminate any such problem, PID Finding 4.24, likewise ignores those hundreds or thousands of people on Plum Island. No conceivable amount of rerouting will create an alternative route where no road exists.

As was set forth above with regard to sheltering, a deficiency in an emergency plan cannot properly be disregarded because of the low probability that action will ever be required.

---

9. The Interveners acknowledge the "realism" doctrine. But realism works both ways. The Licensing Board should have dealt with this problem in its real setting and not simply by resorting to hoped-for statistical expectations. The same is true with respect to TON's claim that evacuation buses will not be able to gain access to the island since both lanes of one access road will be blocked by evacuating traffic. People fleeing Plum Island because of a catastrophic radioactive accident will not merely use their normal travel lane in the real world as the board found. PID Finding 4.19.

ALAB-924 at 65. A serious accident may occur, evacuation may be required and flooding may prevent the bus routes, and TON Bus Route 1 in particular, from being driven. The SPMC does not address much less attempt to solve this real eventuality. Nor could it possibly achieve a solution. The Board's findings that the bus routes are adequate and implementable accordingly constitutes reversible error.[10]

2. <u>If Bus Re-Routing is Implemented, the SPMC is Deficient in Failing to Provide a Means of Notifying the Transit Dependent Population of the Route Change</u>.

The SPMC calls for transit dependent persons to wait along designated routes for an evacuation bus to arrive. If a route must be altered due to its impassability resulting from flooding or other obstacle, an alternative route will be determined. PID Finding 4.24. While this could indeed occur during an evacuation, there exists no means of notifying people who have already gone to the route that no bus will arrive if that route has been redetermined. Thus, the mandate of NUREG-0654 that there be a means of relocation for those people will not be met. It is manifestly unreasonable to assume that such people will have portable radios with them so that possible EBS notifications to this effect will be made known to those waiting outdoors.

---

12. The FEMA finding as to the adequacy of the means of relocation does not alter this inexorable conclusion. FEMA merely found that the <u>procedures</u> for the evacuation of the transit dependent to be adequate. Exhibit 2 at par. 4 1.2; PID Finding 4.3. Nowhere did FEMA evaluate or find the roads constituting bus routes themselves to be adequate. Nor did FEMA find that the number of buses the SPMC will utilize is adequate.

Lacking a means of notification, no reasonable assurance that those transit dependent persons will be relocated can be made.

## CONCLUSION

For the reasons set forth above, the decision of the Licensing Board should be reversed.

Respectfully submitted,

R. Scott Hill-Whilton
Lagoulis, Hill-Whilton & Rotondi
79 State Street
Newburyport, MA 01950
(508) 462-9393

Counsel for Town of Newbury

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Thomas S. Moore
Howard A. Wilber

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | Docket Nos. 50-443-OL |
| PUBLIC SERVICE COMPANY | ) | 50-444-OL |
| OF NEW HAMPSHIRE, ET AL. | ) | |
| | ) | |
| (Seabrook Station, Units 1 and 2) | ) | January 24, 1990 |

EXHIBITS TO BRIEF OF TOWN OF NEWBURY IN SUPPORT OF ITS APPEAL OF LBP-89-32

9729



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Thomas S. Moore
Howard A. Wilber

| | | |
|---|---|---|
| In the Matter of | ) Docket No. | 50-443-OL |
| | ) | 50-444-OL |
| PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, ET AL. | ) | (Off-Site EP) |
| (Seabrook Station, Units 1 and 2) | ) | |

TON'S STATEMENT OF ISSUES PRESENTED
REGARDING APPEAL OF LBP-89-32

1. Did the Licensing Board err in rejecting TON Contentions 9 and 1 (in part) in its MEMORANDUM AND ORDER - PART II (Ruling on Contentions on the Seabrook Plan for Massachuset s Communities), July 29, 1988, pp. 36-37, MEMORANDUM AND ORDER (Following Prehearing Conference), August 19, 1988, p. 7)?

2. Did the Licensing Board err in finding that the SPMC provides a reasonable assurance of adequate protection with respect to the traffic management plan (J1-4) and the evacuation of transit dependent persons (J1-7) in LBL-89-32; Findings 3.123-3.131, 6.23-6.30; page 182 n.37, Findings 4.3-4.30?

Town of Newbury

DS03

EXHIBIT 1

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

before the

ATOMIC SAFETY AND LICENSING BOARD

February 19, 1989

| | |
|---|---|
| In the Matter of: | |
| PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al. | Docket Nos. 50-443-OL-1<br>50-444-OL-1 |
| (Seabrook Station, Units 1 and 2 | Offsite Emergency Planning Issues |

TOWN OF NEWBURY'S AMENDED DIRECT TESTIMONY

Panel Members: Angelo Machiros, Chairman
Board of Selectmen

Roger Merry, Chief of Police

Introduction

This testimony addresses the following contentions:

JI 4 (Traffic Management Plan)
JI 7 (Transit Dependent - Bus Routes)
JI 63 (Local Government Equipment)

Summary of Testimony

JI 4

The traffic management plan fails to provide a reasonable assurance that evacuating traffic will be able to leave the Town of Newbury (TON) in a timely and effective manner. The traffic control posts (TCP) identified in the SPMC are inadequately staffed and are equipped insufficiently. Other critical areas requiring traffic direction and control are uncontrolled. Major routes are too narrow to provide for simultaneous ingress and



8904060106

egress; inbound traffic will be blocked by outbound vehicles. The TCP's will not be able to be manned after evacuation commences -- control of the evacuation, once lost, cannot be obtained. Vehicle occupants will abandon their vehicles and attempt to evacuate on foot. Seasonal impediments periodically impede evacuation.

J1 7

The TON bus routes fail to provide a reasonable assurance that transit dependent persons will be evacuated in a timely fashion. The routes proposed utilize roads which are inadequate and which will be unavailable due to evacuating traffic. The routes will be driven an insufficient number of times. The routes' terminus, i.e. the transfer station is inadequate for its intended purpose. The routes are periodically unavailable due to seasonal impediments.

J1 63

TON lacks sufficient personnel and resources to implement the plan in the event that ORO is unable to do so.

EXPERIENCE OF PANEL MEMBERS

1. Angelo Machiros has been a Newbury selectman for nine years. He has lived at the intersection of Plum Island Turnpike and Old Point Road on Plum Island for approximately fifteen years. As a selectmen, he knows the number of emergency personnel and the types of emergency equipment TON has. As a long-term resident of Plum Island at its most congested intersection, he has for years observed traffic patterns of vehicles leaving the island under all types of weather

conditions. He knows from his personal experience and observations how various types of weather conditions affect one's ability to travel on all roads in TON, and particularly the one road leading to Plum Island.

2. Roger Merry has been the chief of the Newbury Police Department since November, 1986. He became a full-time police officer in 1976. Before that, he was an auxiliary officer for one year and a reserve officer for three years. He graduated from the Massachusetts Police Academy in 1976. He received a degree in criminal justice in 1986. He is familiar with the road conditions in TON under all types of weather, the types of weather patterns which arise on Plum Island and throughout TON, the effect adverse weather has on traffic and road passability, and the conduct of drivers under normal and adverse weather conditions.

JI 4 - TRAFFIC MANAGEMENT PLAN

1. Plum Island - Plum Island Turnpike is the sole road leading to the island. It is a typical two lane road running east and west, one lane leading to the island and the other from the island. It is located in a floodplain, crosses approximately two miles of tidal marsh and crosses a bridge about one-quarter mile in length which spans the Plum Island River. Plum Island Turnpike and portions of other roads on the island are shown in the attached photographs -- as can be seen, portions of the roads become impassable at times of high water levels and ice cakes and other debris float onto them during high tides and remain after the tide recedes. A map of TON is also attached.

The panel members have seen the traffic leaving the island under a variety of weather conditions during all times of the year. During the summer, when the beaches are crowded, traffic jams frequently occur during afternoon weekends when people visiting the beaches on the island leave. It frequently takes hours before traffic is flowing normally once these traffic jams begin to occur. Plum Island Turnpike typically contains a very congested line of extremely slow moving cars during normal summer, late-afternoon conditions. The panel members have also seen what happens when, for example, a sudden rain storm causes many beach visitors to leave at approximately the same time -- at these times, cars are backed up all over the island. Bottleneck traffic jams occur at the following intersections: Plum Island Turnpike and Old Point Road, Plum Island Boulevard, Sunset Drive and Northern Boulevard. At these intersections, vehicles attempt to merge into the one westbound lane of Plum Island Turnpike. During normal conditions, this traffic becomes very snarled; during sudden rain storms, the traffic becomes extremely jammed and gridlock results at times.

During weekends, two patrol officers are normally on duty in TON during the day. During summer weekends, one additional officer is on duty on the island. TON does not even attempt to control traffic leaving the island since to do so would require six to ten officers under normal summer conditions and TON does not have that number on duty. In paragraph two of the testimony on this contention TON has described what, in the panel's opinion, would have to be provided.

The panel has reviewed the SPMC traffic management plan for Plum Island. That plan calls for one traffic guide to control traffic attempting to leave the island. If an emergency occurs at Seabrook Station, which requires evacuation of the island, it is the opinion of the panel that the traffic control provided in the SPMC would do nothing more to facilitate evacuation of the island than would an uncontrolled evacuation. That is, evacuation will occur no more quickly or orderly under the SPMC than would happen without that control. In forming that opinion, the panel has relied on its observations and experience, and has taken into account the fact that everyone on the island, including those who live there, would be leaving at once instead of simply the beachgoers. In addition, the panel has taken into consideration the fact that the evacuees would be under stress due to their fear of radiation from the plant. In addition, the panel has considered that the one traffic control post called for would probably not even be manned until after the evacuation started.

Angelo Machiros lives at the intersection of Plum Island Boulevard, Northern Boulevard and Sunset Drive, where all traffic leaving the island merges into the one westbound lane. On summer weekend afternoons, he watches the traffic trying to leave the island. The traffic barely moves at all under normal conditions when people are leaving at various times. He has often concluded while watching that traffic that, under an emergency evacuation, the traffic would become hopelessly jammed. He worked with the Applicant in the past in attempting to arrive at a workable plan

for evacuation until it became apparent that evacuating the island quickly enough to provide some level of protection for the people there is impossible.

For these reasons, the opinion of the panel is that evacuees would be unable to leave the island. Traffic attempting to merge onto Plum Island Turnpike from Northern Boulevard, Old Point Road and Sunset Drive would become jammed and would move very slowly, and probably not at all. Even assuming that the drivers of those vehicles would not panic, frustration at not being able to leave using the one westbound lane would naturally result in drivers using both lanes of Plum Island Turnpike in order to leave. This would begin quickly, before the TCP were manned. Control of the evacuation would accordingly be lost before the TCP could be placed into operation and it would be impossible to gain control once it is lost.

2. Traffic Control Posts - The panel has formed the opinion, based on its observations of traffic in TON and experience regarding traffic control, that the following are errors and ambiguities which currently exist in the SPMC traffic control diagrams:

A. Traffic Control Post No. E-NP-01: The diagram erroneously concludes that one traffic guide will be able to control traffic attempting egress from Plum Island in an orderly manner and simultaneously permit ingress to Plum Island. Even assuming diligent effort by that guide, one individual is not sufficient to maintain traffic flow at this major intersection of Plum

Island. The diagram incorrectly assumes that traffic converging at the intersection will be utilizing normal travel lanes only. The diagram fails to acknowledge that all traffic attempting to leave Plum Island will converge at this intersection or the controls which will accordingly be necessary. In order to maintain control at the intersection and permit travel to the island, an emergency vehicle with flashing lights should be placed in the middle of the intersection and at least two traffic guides should be present at the intersection, one directing cars entering Plum Island Turnpike from Sunset Drive and the other directing traffic on the two remaining streets shown. In addition, each guide should be wearing highly reflective clothing and be equipped with high-power flashlights. In addition, barricades should be erected to reduce the possibility of outflowing traffic traveling on inbound lanes.

B. Traffic Control Post No. E-NP-07: This TCP is located within the City of Newburyport but will handle all traffic exiting Plum Island. One traffic guide will not, despite best efforts, be able to merge traffic from Plum Island and Water Street into one southbound lane of Ocean Avenue/Rolfe's Lane. The TCP shows one traffic guide who appears to direct traffic on Plum Island Turnpike. At least one additional guide will be required. The diagram shows that ingress to Plum Island

will be blocked with cones. On January 2, 1987, approximately one mile of Plum Island Turnpike between this intersection and Plum Island was under approximately two feet of flowing tide waters; during that time a minimum of two officers were employed to control people attempting to gain access to the island and were barely able to do so. Traffic cones would be ineffective to discourage travel. The same resources identified with regard to the preceding traffic control post should be employed at this intersection. Barricades should be employed instead of cones. If cones are to be employed, their number should be doubled for this and every other intersection where they are used.

C. Traffic Control Post No. F-NB-02: Two traffic guides and an emergency vehicle with flashing lights should be located at the intersection of Rolfe's Lane and Route 1A. The guides should be equipped as noted above. Traffic cones are located on Route 1A in a manner which will prohibit access of buses and returning commuters to Plum Island. Traffic from Rolfe's Lane and northbound traffic on Route 1A crosses at the intersection, leading to increased congestion. The diagram neither depicts nor takes into account other streets located within the area shown in the diagram (e.g. Morgan Avenue which intersects Route 1A between town hall as shown and Rolfe's Lane). No traffic control exists for the police

station/town hall, a site where significant activity would be expected. Barricades should be used where cones are shown or, at a minimum, cones should be doubled. A business parking lot permits travel from Route 1A to Parker Street but is not shown on the diagram nor are controls present to prevent vehicles to enter Parker Street from Route 1A through that parking lot. One traffic guide, equipped as noted above, would be necessary to prevent travel from Route 1A to Parker Street. A second traffic guide, equipped as noted above, should be placed where the traffic guide is depicted near town hall. Similarly equipped guides should be placed at the intersection of Green and Hanover Streets and at the intersection of Morgan Avenue and Route 1. Location of cones discouraging westerly travel on Parker Street conflicts with Newbury Bus Route 4.

D. Traffic Control Point [illegible] Blocking of travel across Route 1 from [illegible] Street to Middle Road conflicts with Newbury Bus Routes 1 and 2. The number of cones should be doubled but even then would probably not stop travel; instead barricades should be used. At least two emergency vehicles with flashing lights and four traffic guides, equipped as noted above, should be located at this intersection. To maintain traffic flow at this intersection, northbound travel on Route 1 should be eliminated and Hanover Street should be used only for outbound traffic.

E. Traffic Control Post No. E-NP-01: A CON TCP, it conflicts with Newbury Bus Route 4 in that evacuation buses on that route are supposed to proceed on Parker Street through its intersection with State Street and Route 1 but traffic in that manner is not permitted as depicted. Moreover, crossing Route 1 on Parker Street is impossible due to the location of immovable barricades which prohibit entering Route 1 from Parker Street and additional barricades which separate the northbound and southbound Route 1 lanes.

3. Additional areas requiring traffic control - The panel has formed the opinion, based on its experience and knowledge of TON and traffic within TON, that maintaining traffic flow and two-way traffic will be impossible unless all controls are in place prior to the commencement of an evacuation. It is the opinion of the panel that the following areas require additional traffic control personnel:

A. Old Point Road, Northern Boulevard, Plum Island Turnpike, Rolfe's Lane, Hanover Street, Route 1A and Route 1: In order to maintain two-way traffic on these roads, traffic guides wearing highly visible clothing and equipped with flashlights should be located along the entire length of each road at a distance close enough to one another so that when a driver passes one guide another guide will be readily visible to the driver.

B. Central Street and Route 1A: One traffic guide

equipped as noted above, and one emergency vehicle with flashing lights should be located at this intersection as residential traffic and traffic from the Governor Dummer Academy and Triton Regional High School will attempt to gain access to Route 1 at this location.

C. Triton Regional High School: A minimum of two traffic guides, equipped as noted above, should be located at this site, one at the front entrance and one at the rear entrance.

D. Route 1A Bridge Spanning the Parker River: Three traffic guides, equipped as noted above, and two emergency vehicles with flashing lights should be located at the bridge, one vehicle and traffic guide at the southbound entrance to the bridge, one traffic guide in the middle of the bridge and one traffic guide and emergency vehicle at the southbound exit from the bridge.

E. Highfield Road and Scotland Road: One traffic guide, equipped as noted above, is needed to permit evacuation buses to gain access to Scotland Road from the Highfield Road transfer point.

F. Scotland Road: Traffic guides, equipped as noted above, should be located along Scotland Road close enough to one another so that when a driver passes one traffic guide another traffic guide will be immediately visible to the driver. Without such controls, two-way traffic will not be possible.

G. Hanover Street at Newbury Elementary School: At least

two traffic guides, equipped as noted above, and one emergency vehicle with flashing lights, will be needed to permit ingress to the school and evacuation therefrom.

H. Route 95 and Central Street: At least three traffic guides, equipped as noted above, should be present. One traffic guide and an emergency vehicle with flashing lights should be located at the entrance ramp from Route 95 to Central Street, directing all Route 95 northbound traffic to Central Street. A second traffic guide should be at the top of the ramp directing traffic from Interstate 95 to cross Route 95. A third traffic guide should direct such traffic to the southbound Route 95 ramp. This turnaround should not be attempted at Route 95 and Scotland Road as planned for the reason that significantly higher evacuation traffic will be present on Scotland Road than on Central Street.

I. Woodbridge School and Route 1: One traffic guide, equipped as noted above, should be located at this location to control the arrival and departure of parents and evacuation buses.

J. Northern Boulevard and Plum Island Turnpike: At least one traffic guide, equipped as noted above, and an emergency vehicle with flashing lights is needed to merge traffic onto Plum Island Turnpike.

K. Boston Road and Route 1: One traffic guide, equipped as noted above, should be located at this intersection in order to enable buses traveling Newbury

Bus Routes 1 and 2 to cross Route 1.

L. Route 1A and Low Street: At least one traffic guide, equipped as noted above, should be located at this site to enable northbound evacuation buses (Newbury Bus Route 3) to cross Route 1 and gain access to Hay Street.

M. Byfield Elementary School: One traffic guide, equipped as noted above, should be located at this location to control the arrival and departure of parents and evacuation buses.

JI 7 - TRANSIT DEPENDENT, BUS ROUTES

There are four bus routes set up in the SPMC for TON. Two buses are assigned to each route. Each route is to be driven twice. The panel has formed the opinion that the buses will be unable to travel the routes for the reasons set forth below:

A. Newbury Bus Route 1: The bus cannot cross Route 1 in either direction as called for in the route because traffic cones put in place according to TCPE-NB-03 does not permit any vehicle to cross Route 1 as the plan calls for. Hanover Street, Rolfe's Lane and Plum Island Turnpike, the three roads the bus is supposed to use to get to the island, will be blocked by evacuating traffic for the reasons discussed above. Once on the island, the bus will be unable to travel to the end of the island on either Old Point Road or Northern Boulevard as the route calls for because evacuating traffic will block travel in those directions on those roads.

B. Newbury Bus Route 2: A portion of Orchard Street has

become impassable when the road washed out when a stream overflowed its banks. The bus route does not provide an alternative route should a similar occurrence take place. The bus is to cross Route 1 at its intersection with Boston Road but the plan provides for no traffic control at that intersection and the bus will be seriously delayed because of the utilization of Route 1 as a major evacuation route. The bus will not be able to re-cross Route 1 at Hanover Street for the reason that TCPE-NB-03 provides for cones which block travel in that direction. In addition, evacuation traffic on Route 1 will make it extremely difficult for the bus to cross Route 1 at this location.

C. Newbury Bus Route 3: This bus route has been recently revised and no longer utilizes Hay Street or Newman Road, roads which had created problems due to, among other things, periodic flooding. But the bus is still supposed to cross Route 1 at its intersection with Boston Road and the same problem results with this route as resulted with the previous route at this location. The bus is also supposed to travel north on Route 1A across the Parker River. A two-lane bridge spans the river at that point. Because no traffic controls exist at that bridge, the panel, based on its experience and knowledge of driver behavior, has formed the opinion that both lanes of the bridge will be used by southbound traffic and that the bridge will not be accessible to

northbound traffic as the route plans. In fact, the panel believes that the entire width of Route 1A will be jammed with evacuees heading south since Route 1A is a major road leading away from Seabrook for Newburyport as well as Newbury. Finally, the route as recently revised calls for the bus to make a U-turn on Hay Street near the intersection of Newman Road. While it would not be impossible for a bus to eventually reverse its direction on Hay Street by going back and forth a number of times or using Newman Road to turn around on, this maneuver would be extremely difficult if Hay Street is being used by evacuees.

D. Newbury Bus Route 4: This route also has recently been revised. The route now calls for the bus to travel on Scotland Road toward Newburyport. That road will be jammed with Newburyport evacuees and travel toward Newburyport will be impossible. In addition, the revised route calls for the bus to cross Route 1 at Parker Street. Immovable barricades have been built at that location which make crossing Route 1 there impossible. Finally, the route plans for the bus to travel east on Parker Street to High Road -- Parker Street will be jammed by Newburyport and Plum Island evacuees who are traveling in the opposite direction so eastbound bus traffic will be impossible.

E. Transfer Point: The Newbury transfer point is located on Highfield Road. That road is extremely

narrow and winding. Any degree of traffic on that road will make bus travel impossible, particularly from the transfer point to Scotland Road. The transfer point itself is really nothing more than a driveway leading to a Massachusetts Electric Company substation. No shelter exists there. Very little room exists to enable the bus to turn into or turn around within the transfer point.

F. Evacuation Route 2, Beverly Reception Center: The SPMC diagram which shows the route from the Newbury transfer point to the Beverly reception center includes written instructions. Those instructions, which presumably would be referred to by the bus driver or his or her assistant or guide, tells the driver to make a left turn on Downfall Road. Downfall Road does not exist at that location.

JI 63 - LOCAL GOVERNMENT EQUIPMENT

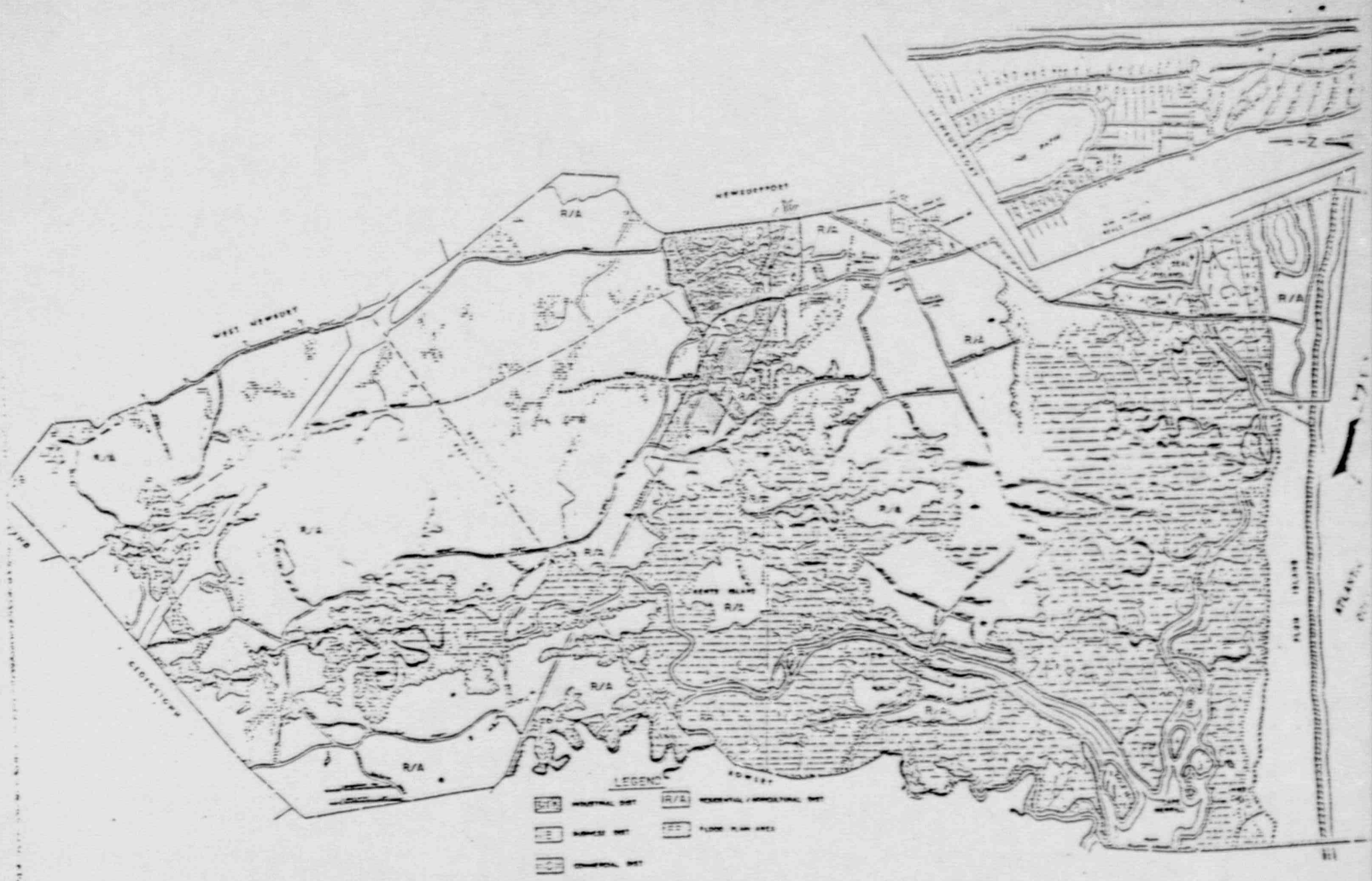
As noted with regard to JI 4, dealing with the traffic management plan, the panel believes that traffic controls must be in place before the evacuation begins. TON does not have enough personnel or equipment to provide those controls, even assuming that all of its off-duty personnel could be contacted and responded promptly, an eventuality highly unlikely to occur. TON's police department consists of one chief, one deputy chief, two lieutenants, one sergeant and three patrol officers and sixteen reserve patrol officers, one patrol officer/dispatcher and a dispatcher. Its fire-fighting personnel consists of two full-time individuals and approximately fifty volunteers. This

total number of individuals is insufficient to provide the traffic controls previously identified which TON believes would be necessary. Also, it is doubtful that more than half of these workers will be able to be contacted and will respond.

In addition, TON's vehicles consist merely of three marked police cruisers and two all-terrain vehicles, twelve fire trucks of various sizes, four dump trucks, one pickup truck, one personnel carrier, two tractors, one back hoe and one sidewalk plow. TON also has one boat. These vehicles are not sufficient to establish the type of traffic control TON believes is necessary as is set forth above. Nor is this equipment sufficient to enable TON to remove impediments to travel on TON's roadways in a timely fashion, such as ice cakes which become deposited on Plum Island Turnpike.

Dated: March, 27 1989 By: R. Scott Hill-Whilton

R. Scott Hill-Whilton
Counsel for Town of Newbury
Lapoulin, Hill-Whilton & Rotondi
79 State Street
Newburyport, MA 01950
(508) 462-9393




ZONING MAP

EXHIBIT 2

UNITED STATE OF AMERICA

NUCLEAR REGULATORY COMMISSION

before the

ATOMIC SAFETY AND LICENSING BOARD

August 14, 1989

| | | |
|---|---|---|
| In the Matter of: | ) | |
| PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al. | ) | Docket Nos. 50-443-OL-1<br>50-444-OL-1 |
| (Seabrook Station, Units 1 and 2 | ) | Offsite Emergency Planning Issues |

TOWN OF NEWBURY'S PROPOSED FINDINGS OF FACT
WITH RESPECT TO THE SPMC

The Town of Newbury (TON) files the following proposed findings concerning the SPMC. These address sections 3 (Traffic Management Plans), 4 (Evacuation of Transit Dependent Persons) and 10.1.13 (Coordination of Government Resources and Response) of Applicants' Proposed Findings (Applicants' P.F.). Pursuant to the Board's instructions, TON will follow the order of the Applicants' proposed finding. A proposed finding adding letter designations, e.g. 3.1.18(a)., etc. to Applicants' numbering system is a separate proposed finding which TON believes is related to the topic in Applicants' proposed finding of that number. Where no express agreement is set forth in connection with any finding, ruling or conclusion proposed by Applicants, and there is no finding, ruling or conclusion substituted or bearing TON's additional designation, TON disagrees with Applicants' proposal. To the extent that any other Intervenor has submitted a substitute or additional proposed finding(s),TON



8908170132

adopts the proposed finding(s) submitted by other Intervenors.

3.1.17. TON provided detailed testimony relating to issues presented in J1-4. The testimony was presented by its police chief, Roger Merry, and the chairman of its Board of Selectmen, Angelo Machiros. TON Dir., ff. Tr. 17801, passim. The TON panel explained in detail in their direct examination and during the cross-examination of them why they justifiably have concluded that implementation of the SPMC would result in an evacuation of the Town of Newbury which would be no more rapid or efficient than an uncontrolled evacuation.

3.1.18. The Applicants have attempted to minimize the negative impact of the TON panel's testimony during this proceeding (Applicants' PF 3.1.18). The efforts of the Applicants to minimize Chief Merry's testimony, for example, is not based on a full and complete review of the TON panel's testimony as a whole but, rather, on isolated segments of testimony taken out of context. The TON panel's testimony as a whole is logical, persuasive and compelling. The Board makes this finding based upon the detailed review of their testimony as appears in the following subparagraphs.

3.1.18(a). The Board finds that both members of TON's panel are competent to testify on the subjects they addressed. Chief Merry has been a full-time police officer since 1976 and was a party-time officer before then. He has graduated from the Massachusetts Police Academy and holds a degree in criminal justice. He is familiar with the road conditions in TON under all types of weather, the types of weather patterns which arise

on Plum Island and through TON, the effect adverse weather has on traffic and road passability in TON, and the conduct of drivers under normal and adverse weather conditions in TON. Chief Merry's personal knowledge and observations of these events and factors is vastly superior to that possessed by any witness or panel of witnesses presented by the Applicants or the staff. Indeed, no evidence was presented to this Board that any witness presented by the Applicants or the staff had ever observed large numbers of people leaving Plum Island or Newbury at approximately the same time or that any of those witnesses had visited the island or the town during periods of inclement weather. Observations of these conditions, on the other hand, are common if not daily experiences of Chief Merry. TON Dir., ff. Tr. 17801 at 2-6. Perhaps even more compelling testimony of the conditions relating to Plum Island were presented by Chairman Machiros. The chairman has been a selectman for nine years and lives at the intersection where all traffic evacuating Plum Island will converge in order to gain access to the one westbound lane of roadway leading from the island. Id., Tr. 17340-41.

3.1.18(b). Access to and from Plum Island is via the Plum Island Turnpike, a typical two lane road. The road is established in a floodplain, crosses approximately two miles of title marsh and crosses a drawbridge which spans the Plum Island River and which is approximately one-quarter mile in length. TON Dir., ff. Tr. 17801 at 3, Tr. 17407. While the Applicants' Rebuttal Panel No. 9 professed to have visited Plum Island a combined total of thirty or so times, Tr. 17409, the Board is

troubled by the lack of meaningful knowledge they acquired thereby. For example, Applicants' panel had noticed, when driving over the bridge leading to the island, an enclosure commonly associated with drawbridges on the bridge, Tr. 17352-353, but it did not register on any of that panel's members until they testified that the bridge indeed was a drawbridge. Tr. 17407.

3.1.18(c). Portions of Plum Island Turnpike and roads on Plum Island itself become impassable at times of high water levels. In addition, ice cakes and other debris float onto these roads during high tides and remain after the tide recedes. TON Dir., ff. Tr. 17801 at 3. Plum Island Turnpike becomes impossible due to flood waters as many as fifteen times per year, Tr. 17892, normally in the winter, fall and spring but this condition has also occurred in the summer with as many as 15,000 people on the island. Tr. 17884, 17894. Flood waters alone at times render Plum Island Turnpike impassable for up to seven hours. Tr. 17895. But the cause of the impassability of the Plum Island evacuation routes is not limited solely to flood or tide waters. Large amounts of debris (tree trunks, huge ice cakes, even furniture and appliances) are deposited on the roads and remain after flood or tide water recedes. This debris must then be removed and the roads remain impassable for as many as ten hours while this work is being done. Tr. 17899. Mere accidents on the sole road leading to the island cause it to be sealed off to travel for up to five hours. Tr. 17854-17855. Simple festivals at an airport abutting Plum Island Turnpike causes

traffic to back up for miles down Ocean Boulevard/Rolfe's Lane as far as Route 1A and beyond. Tr. 17823. The flooding and tide problems of Plum Island Turnpike are also present on Sunset Boulevard and Old Point Road on the island itself, both of which would be used leaving in the event of an evacuation.

3.1.18(d). TON's panel members have seen traffic leaving Plum Island under a variety of weather conditions during all times of the year. During the summer, when the popular beaches on the island are crowded, traffic jams frequently occur during summer afternoons when people visiting the beaches leave. It frequently takes hours before traffic flows normally once these traffic jams begin to occur. Plum Island Turnpike typically contains a very congested line of extremely slow moving cars during normal, late-afternoon conditions. Id. at 4. Accidents which occur at the entrance to the island seal it off to traffic for up to five hours. Tr. 17854-17855.

3.1.18(e). TON's panel members have also personally observed what happens, for example, a sudden rainstorm causes many beach visitors to leave at approximately the same time -- at these times, cars are backed up all over the island. Bottleneck traffic jams occur at multiple intersections on the island where vehicles attempt to merge into the westbound lane of Plum Island Turnpike. During normal conditions this traffic becomes very snarled; during rainstorms the traffic becomes extremely jammed and gridlock results at times. TON does not attempt to control such traffic under normal conditions since it has insufficient personnel on duty to do so. Id.

3.1.18(f). Despite these problems, the SPMC traffic management plan merely calls for one traffic guide to control all of the traffic leaving the island. Id at 5. But even that one traffic control point will not be staffed until almost three or four hours have passed from the time the evacuation begins. Tr. 17347. If an emergency occurs at Seabrook Station which requires evacuation of the island, it is plain that the traffic control provided in the SPMC would do nothing more to facilitate evacuation of the island than would occur in the event of an uncontrolled evacuation. That is, evacuation of the island will occur no more quickly or orderly under the SPMC than would occur without that control. TON Dir., ff. Tr. 17801 at 5. Under normal conditions, traffic converging at the one intersection where all traffic meets to leave the island barely moves; under an emergency evacuation with all residents and visitors on the island leaving at once, traffic from the island would become hopelessly jammed. Id. Frustration of the drivers at being unable to merge onto Plum Island Turnpike would naturally lead to frustration at not being able to evacuate using the one-bound lane and this naturally would result in drivers using both lanes of Plum Island Turnpike in order to evacuate. This would occur quickly, before any traffic control was in place. Control of evacuation from the island would accordingly be lost quickly and it would be impossible to gain control once it is lost. Id at 6-7. The Board accordingly rejects the assertion of staff witness Urbanik to the effect that he sees no difficulty in the concept of traffic guides establishing control after they arrive at an

assigned congested intersection. Tr. 26443. The plain fact is that the sole traffic guide provided in the SPMC for Plum Island will not be able to arrive at the assigned post at all during an evacuation.

3.1.18(g). Moreover, even if vehicles could get to Plum Island Turnpike, the SPMC provides for no traffic control after leaving the island until vehicles arrive at the intersection of Plum Island Turnpike and Ocean Boulevard/Rolfe's Lane. It is unrealistic and unreasonable to assume, as the SPMC does, that drivers will merely utilize the one egress lane of Plum Island Turnpike or any other road leading to the major evacuation routes for this area, namely, Interstate 95, Route 1 and Route 1A. TON Dir., ff. Tr. 17801 at 4-6, 10-13.

. . .

3.1.24. The primary objective of traffic management is to facilitate the movement of people away from the area of concern. The ultimate goal is that of dose reduction. To meet that goal, a traffic management plan should seek to facilitate the movement of people away from Seabrook Station and not merely to move people out of the ten mile radius around the facility. Thus, the Applicants' efforts here, which are simply directed on reducing overall evacuation time estimates, merely addresses <u>one</u> of the goals of evacuation traffic management. The Applicant agrees that additional traffic control points in TON would assist to facilitate traffic movement. Tr. 17355, 17357-17358. Indeed, the Applicant's panel believes that additional traffic control points would assist in traffic movement at <u>any</u> intersection where

there is significant competing traffic flow. Id. But while the Applicants' witnesses recognize that such control would facilitate movement further from Seabrook Station, the plan fails to provide those additional controls and, instead, merely provides for control at areas where tremendous volumes of traffic would be expected which merely has as a goal the lowering of the overall evacuation time estimates. In other words, the overall goal of traffic management as provided in the SPMC is merely to reduce E.T.E.'s although, with additional controls, people could still be moved further from Seabrook Station even if E.T.E.'s are not reduced. The Board rejects the Applicants' approach to evacuation planning as being fundamentally misguided in its philosophy.

3.1.26. TCP's should be designed to facilitate evacuating traffic movement away from Seabrook Station in a safe and orderly manner. When additional TCP's can accomplish these goals, and here the Applicants acknowledge that additional TCP's would assist in moving traffic, Tr. 17357, they should be provided in order to maximize dose reductions. Within TON, maintaining traffic flow will be virtually impossible unless all controls are in place before the evacuation commences. TON Dir., ff. Tr. 17801 at 10. This is particularly true with regard to the narrow two lane roads leading to and on Plum Island. The following controls must be present within TON before the goal of facilitating and maximizing traffic movements and dose reduction are met (but the SPMC provides none of them).

3.1.26(a). In order to maintain two-way traffic on Old

Point Road, Northern Boulevard, Plum Island Turnpike, Rolfe's Lane and Hanover Street traffic guides should be located along the length of each road at a distance close enough to one another so that when a driver passes one guide another guide will be readily visible to the driver. Id. This is the route which will be driven by every vehicle leaving Plum Island. TON Dir., ff. Tr. 17801 at attached Zoning Map. By the applicant's testimony, more than 3,000 vehicles will utilize this route during an evacuation. Tr. 17337. The SPMC's goal of merely providing one traffic guide for Plum Island, and then not until three or four hours after the evacuation has commenced, Tr. 17347, is inadequate. The Board rejects the SPMC's method of facilitating traffic movement from the island as being wholly inadequate.

3.1.26(b). At least one traffic guide should be present at the intersection of Central Street and Route 1A to facilitate the evacuation of residents and the Governor Dummer Academy and Triton Regional High School which both are located near this intersection. TON Dir., ff. Tr. 17801 at 10-11.

3.1.26(c). A minimum of two guides should be located at the two entrances to Triton Regional High School in order to facilitate movement of traffic to the school by parents and buses. Id.

3.1.26(d). Traffic guides should also be located at the bridge which spans the Parker River on Route 1A. Route 1A is a major evacuation route from Newbury as well as from Newburyport. Tr. 17363-17364. Route 1A is a relatively wide two-lane road

which would easily accommodate two lanes of evacuating traffic while nevertheless permitting one lane of roadway to be open for ingress by, for example, returning commuters. But the Parker River Bridge, which is approximately one-quarter mile long, consists merely of two lanes and has no shoulders. Tr. 17394-17395. Thus, as it is probable that Route 1A will contain two lanes of evacuating vehicles when approaching the bridge, no controls are present to facilitate the merging of those lanes into one outbound lane and it is most improbable that drivers of evacuating vehicles will merge on their own. Thus, as the plan provides for no control at this site, the bridge will likely be used entirely by evacuating vehicles thus completely blocking inbound travel by returning commuters, tow trucks, evacuation buses and any other inbound traffic. Similarly, Old Point Road on Plum Island is merely seventeen feet wide. Tr. 17384. It will not accommodate two outbound and one inbound lane. It is natural that, given the fact that the residential portion of Plum Island is densely populated with many of the lots there being less than 500 square feet in size, Tr. 17386, drivers will naturally utilize both lanes of Old Point Road and render inbound traffic impossible. Moreover, none of the streets which comprise the evacuation route from Plum Island, i.e., Plum Island Turnpike, Ocean Boulevard, Rolfe's Lane and Hanover Street, will accommodate two outbound and one inbound lane of traffic. Yet it is probable that drivers will form two lanes of outbound traffic. Inbound traffic by returning commuters, evacuation buses and the like will accordingly be impossible. Tr. 17387. The SPMC is

inadequate in failing to recognize and provide for a means of facilitating travel along these routes. This is true even though the Applicants' panel acknowledges that additional traffic guides "will be able to assist traffic in many locations in Newbury." Tr. 17376. For example, Applicants' panel acknowledges that additional guards would assist traffic movement if they would be located along Route 1A, along Hanover Street, along Route 1 and along Plum Island Turnpike. Tr. 17377. In addition, the Board finds that additional guards are necessary along Bush Boulevard/Rolfe's Lane as that road necessarily must be taken to evacuate from the island. Thus, Applicants' panel agrees with TON's assertion that traffic control must be provided along the Plum Island evacuation route and the Board so finds. Id. TON Dir., ff. Tr. 17801 at 10.

3.1.33. The Applicants assert that it is not necessary to provide for additional TCP's so long as those additional TCP's would not reduce the overall ETE. That philosophy permeates the applicants traffic management plan as set forth in the SPMC. This Board rejects that philosophy and the Applicants' approach. The goal of emergency planning is to move people away from the area of danger. This Board has consistently ruled that the goal of the SPMC should be to maximize dose reduction. Tr. 17538. In the case of this plant, the Applicants should strive to move people away from Seabrook Station and not merely out of the ten mile radius around the facility. Since Applicants acknowledge that additional TCPs could be added which would facilitate movement of traffic away from the facility, TR 17355-

17376, the SPMC is inadequate in that it fails to maximize dose reduction by failing to provide for additional TCP's which the Applicants concede would facilitate movement away from Seabrook Station. Moreover, the record is devoid of any evidence that it would be unreasonable or impractical to provide the additional TCP's the Applicants acknowledge would assist in facilitating traffic movement.

...

3.1.38. Applicants appear almost to assert that the SPMC is in reality the result of the combined input of the police chiefs in the affected municipalities. The Board declines to find that the SPMC is adequate simply because five police officers at some point in the past provided input to the Applicants. Indeed, in the case of TON, municipal officials as well as the former police chief cooperated for years with the Applicants in attempting to devise evacuation plans which would facilitate the timely and efficient evacuation of people. In fact, witness Machiros was the chairman of TON's evacuation committee. Tr. 17856. It was only after TON made a sincere effort to assist in developing a plan that it became apparent to its officials that one could not be devised. TON Dir. ff. Tr. 17801, 5-6. that the former Newbury chief of police may have attempted to assist in in developing TCPs is not taken by this board to mean that TON's panel is incorrect in concluding that the proposed TCPs are inadequate. The Applicants provided no evidence whatsoever concerning that former Newbury official's background or experience and acknowledged that he had frequently brought to the

attention of the Applicants the resource limitations that exist in TON. Tr. 17368.

...

3.1.42. While TON will exert its best effort to respond to an emergency at Seabrook Station, its resources are inadequate to provide necessary traffic and access control. TON merely has eight full-time police officers and seventeen reserve patrol officers. Its fire fighting personnel consists merely of two full-time individuals and approximately fifty volunteers. It is unlikely that more than half of these workers will be able to be contacted and will respond in a emergency. TON Dir. ff. 18601 at 16-17. It is plain that reserve officers and volunteer fire fighters normally hold regular jobs and that to simply contact each of those potential responders could require significant numbers of hours and the services of one or more persons who are on duty to contact them. The actual number of people within TON who realistically would be available to respond in the event of an emergency probably total no more than twenty-five to thirty. This number is inadequate to establish the type of traffic control which this Board has found to be necessary. This Board also rejects Applicants' assertion that other agencies or the state police would facilitate the response of local municipalities for the obvious reason that their numbers are likewise limited and will likely be deployed at the major evacuation routes of Interstate 95, Route 1 and Route 1A and not on local roads such as Plum Island Turnpike and roads on Plum Island. Finally, the equipment available to TON is insufficient in number and type to establish the traffic control which is

necessary in order to facilitate the evacuation of the town or even to remove impediments, such as ice cakes and other debris which frequently become deposited on Plum Island Turnpike, in order that the roads in TON can be used in a timely fashion. Id. at 17.

3.1.46. The sole TCP on Plum Island will not be staffed until approximately three to four hours after the order to evacuate. Tr. 17347. Of course, this assumes that inbound travel on Plum Island Turnpike and Rolfe's Lane in TON is even possible at that time, Tr. 17351, a proposition which this Board rejects. Even accepting the Applicants' assertion that merely 3,000 vehicles have been observed by it to be on Plum Island, Tr. 17337, that easily could translate into more than 10,000 evacuees easily. Given this fact and the existence of the single lanes of travel available to those evacuees, this TCP should be one of the first traffic posts manned and not one of the last. Otherwise, travel to the island by, for example, evacuation buses and returning commuters would be impossible as evacuees will naturally use both outbound lanes and thereby block inbound traffic.

...

3.1.49. Activating the sole TCP provided from Plum Island will be impossible as planned. While it may be common for police to establish control during congested conditions, such as at the scene of an accident, that is an isolated incident spatially and does not involve the mass exodus of vehicles using very limited roadways. The Board finds that the Applicants will be unable to

staff the TCP's planned for Plum Island, the intersection of Plum Island Turnpike and Ocean Blvd./Rolfe's Lane for the reason that inbound travel to those locations will be impossible where, as is the case here, the evacuation will already have been under way for hours before the attempt to establish those controls is made. TON Dir. ff. Tr. 17680 at 4-10.

...

3.1.82. As pointed out by the Applicants in their proposed findings, TON indeed take the position that the SPMC is deficient because, in the event of a flood, it would be impossible to leave the island. TON's concern about that deficiency in the SPMC is justified in taking into account that Plum Island Turnpike not only <u>may</u> become impassable but that it in fact regularly <u>does</u> become impassable. Typically, impassability results at times of high water levels and when ice cakes and debris float onto that road. TON Dir. ff. Tr. 17801 at 3, Tr. 17899. For example, on January 2, 1987, approximately one mile of Plum Island Turnpike became impassable for hours when it was under about two feet of flowing tide waters. <u>Id</u>. at 8. This not an extremely isolated or unlikely event. Indeed, that road is subject to flooding on a routine basis, as frequently as fifteen times per year. Tr. 17892. Applicants recognize that such an event at the time of an emergency at Seabrook Station make the evacuation of Plum Island impossible. Tr. 17382-17383. To deal with that insoluble problem, the Applicants simply state that such an impediment would be a fact which would be considered in making the appropriate protective action

recommendation. Id., Applicants' PF 3.1.82. Undoubtedly, the Board can take the Applicants at their word when they say they will consider this problem if and when it arises in generating their PAR recommendation. The promise to consider this problem, however, cannot lead the Board to conclude that a reasonable assurance of adequate protection will result. First, the simple fact is that there is no alternative method of evacuation or route of evacuation proposed or possible for Plum Island. Tr. 17382-17383. Thus, the only alternative PAR would be sheltering. The Applicants have provided no information to this Board of the sheltering capacity of Plum Island from which a finding of adequacy could be made. And a significant portion of Plum Island, six or seven miles of its length, is made up of the Parker River National Wildlife Refuge. In that refuge, only one shelter was identified by the Applicants as being available for sheltering but was characterized as being nothing more than "a six foot by six foot shack" Tr. 17383-1784. Assuming that this Board should accept the Applicant's testimony that almost two thousand vehicles were observed on Plum Island South, which includes the refuge, Tr. 17337, that means that hundreds and potentially thousands of people could be trapped in the refuge with no means of shelter and no means of evacuation. While Applicants argue that it is unlikely for large numbers of people to be in the refuge during storms and that such an event is accordingly unlikely, it is apparent that flooding does not always occur simultaneously with a storm. Indeed, higher than normal tides are the chief cause of the flooding of Plum Island

Turnpike and such tides could be caused many, many hours after a storm passes if the storm is in fact the direct cause of the final result of flooding. TON Dir. ff. Tr. 17801 at 3. But even if the number of trapped people in the refuge were hundreds and not thousands, - though they plainly could be thousands - there is no assurance that the SPMC provides them with <u>any</u> protection in the least. Nor does the SPMC provide for any method of dealing with ice cakes and other debris which float on to roads such as Plum Island Turnpike and render them impassable. TON Dir. ff. Tr. 17801, at 3, Tr. 17899. While flood waters recede, debris which renders roads impassable must be physically removed and the SPMC makes no provision for accomplishing this.

4. EVACUATION OF TRANSIT DEPENDENT PERSONS

4.1.2. While FEMA has found the <u>procedures</u> for the evacuation of the transit dependent adequate, FEMA has not evaluated the evacuation routes, whether the number of buses to be used on individual routes are adequate given the characteristics of the individual routes and numbers of transit dependent persons to be picked up or whether the roads to be driven by the buses are adequate for the intended purpose.

...

4.1.5. TON's panel of witnesses testified to serious difficulties which will be encountered in attempting to implement the bus evacuation plan. TON Dir., ff. Tr. 17801 at 13-16.

4.1.5(a). It is planned that Newbury bus route #1 will leave the transfer point, travel on the same roads being used by all Plum Island evacuees and, after picking up their riders,

return to the transfer point. However, the Board finds that this bus will be unable to travel on Hanover Street, Ocean Blvd./Rolfe's Lane, Plum Island Turnpike, Old Point Road and Sunset Boulevard since evacuees, who will have commenced evacuation prior to the bus runs and before TCP's in Newbury are manned, will be utilizing all inbound travel lanes. Id. The Boards findings with regard to these issues supra, are incorporated herein. Once on Plum Island, the buses will be unable to travel to the northern portion of the island on Old Point Road or Northern Blvd. as planned because evacuating vehicles will block inbound travel on those roads. Id.

4.1.5(b). A portion Newbury bus route #2 has become impassable when one of its roads, Ocean Street, has washed out when a stream overflowed its banks. The SPMC provides no alternative route should a similar occurrence take place during an evacuation. The buses which drive route #2 are to cross Route 1 at its intersection with Boston Road but the SPMC fails to provide any traffic control at that intersection and the bus will be seriously delayed in crossing Route 1, if it can at all, because of the utilization of Route 1 as a major evacuation route. Id. at 14. The buses of route #2 are planned to again cross Route 1 in returning to the transfer point (at the intersection of Route 1 and Hanover Street) but evacuation traffic will seriously delay crossing Route 1 if the bus is able to cross that evacuating traffic at all.

4.1.5(c). Newbury bus route #3 calls for the bus to travel

north on Route 1A across the Parker River. A two-lane bridge spans the river at that point and, for the reasons set forth above (Route 1A is a major evacuation route, two lanes of south-bound traffic will undoubtedly occur at this bridge, no traffic controls exist at this location), the bridge will not be accessible to the bus which will be north bound at this location.

4.1.5(d). Newbury bus route #4 provides that the bus will travel on Scotland Road for a significant distance. Scotland Road is a major route which large numbers evacuees from the City of Newburyport will use to gain access to Interstate 95. Accordingly, it will likely be jammed with evacuees and it is unlikely that the buses will be able to drive on this portion of the route as planned. Id at 15.

4.1.5(e). The Newbury transfer point is located on Highfield Road, a road that is recognized by the Applicants' panel to be narrow and winding. Id. at 15, Tr. 17403. Any degree of traffic on that road make bus traveling impossible, particularly north from the transfer point to Scotland Road. Very little room exists to enable the bus to turn into or around within the transfer point and, if Highfield Road is used by evacuees, backing onto it by the bus will be extremely difficult if not impossible. The transfer point consists of nothing more than an electric substation area with a seventy-five foot drive-way which is no wider than fifteen feet leading to it. Tr. 17399-17400. No shelter is provided at the transfer point for transit dependent evacuees. Moreover, Highfield Road is merely sixteen feet wide at its narrowest point. Tr. 17397.

That point is located south of the transfer point and three of the four Newbury bus routes leave from and return to the transfer point in that direction. Since at lease seventeen feet of road width is needed for two buses to pass each other, Applicant's FF 4.1.12, it will be impossible for these three routes to be driven as planned.

4.1.5(f). It is planned that full buses, once they complete their routes, will drive straight to the reception center in Beverly. Tr. 17401. If the buses are not full when they complete their routes, however, it is planned that the buses will return to the transfer point where they will discharge their passengers. The passengers will wait in a bus at the transfer point until that bus becomes full of evacuees. That bus will then transport them to the reception center. Tr. 17401-403. However, merely one bus is being provided which will wait at the reception center for evacuees who will be dropped off there for transportation to the reception center. TR 17404. In addition, only two buses are planned for each of the four routes (a total of eight buses) and it is estimated that each bus will merely drive its route once. There is no reasonable insurance that the the number of buses which are being provided for TON are adequate to meet the transportation needs of the transit dependent. It is apparent that the Applicants do not know whether the number of buses to be utilized in TON are adequate: Applicants' panel testified that they will know whether to have the buses drive their routes more than once only if the buses are full after they complete a route. Tr. 17404. But since full buses will travel

. . .

directly to the reception center in Beverly, Tr. 17401, it is plain that there simply will be no additional buses to drive routes more than once if that becomes necessary. Moreover, the Applicants acknowledge that they have no way of knowing whether or how many transit dependent persons have gone to bus routes in order to ride the evacuation bus after the bus has driven the route. Tr. 17405. The fact that buses will not start driving the routes until sometime after the evacuation commences does nothing to solve this problem; buses will be impeded as set forth above and transit dependents may simply miss the first bus or two because they are waiting in their homes and not outside where they have no protection. Finally, nothing is provided in the SPMC for transit dependents in the Refuge.

4.1.5(g). The SPMC leaves it to individual bus drivers to decide how to travel from the Newbury transfer point to the Beverly reception center. Tr. 17402-17403. The Board finds this to be inadequate. The drivers of the buses will be provided with no information concerning which of the possible routes to the reception center is the best at any particular time. In addition, the bus drivers will be unable to acquire information on their own as to which route to choose. Id.

. . .

4.1.10. The Board finds that the Applicants' testimony concerning transit dependents are competent to serve as witnesses on the subjects they address. The Board likewise finds that TON's panel was competent to testify on the subjects they addressed with regard to transit dependents. TON Dir., ff. Tr.

17801 at 13-16. With regard to the Applicants' panel, however, the Board does not find that the information they provided was persuasive. Much of the testimony of the Applicants' panel, which also is addressed below in finding 4.1.12, was based on information provided to the panel which the panel colored and interpreted in the light most favorable to the Applicants. For example, the panel glossed over the fact that Boston Road, used in bus routes, in merely sixteen feet wide. Tr. 17390. In addition, the panel incorrectly claimed that a dump truck was observed to pass a bus on Boston Road. Tr. 17390-17392. It was developed in examination that the panel relied on page 120 of Attachment I to their testimony in making that claim and that they possessed no information of any truck passing any bus other than the incident described in Attachment I. But Attachment I plainly states that a bus and dump truck passed one another on Orchard Street and is wholly silent of any description of a bus passing a dump truck on Boston Road. Id. In fact, it was even developed in examination of Applicants' panel that the school bus was stopped on the shoulder of the road (undoubtedly Orchard Street) when the dump truck passed it and the panel had absolutely no information concerning how far onto the shoulder the bus was when the truck passed. Moreover, Applicants' panel claimed that Old Rowley Road, which is utilized by Newbury Bus Route 3, is fifteen feet wide with "additional shoulders." Tr. 17396. It was developed through cross-examination that the additional shoulders, when combined, added merely eight inches to the portion of that road which can be driven upon. Finally,

while Applicants' panel testified that two buses were observed to pass on Highfield Road, the panel did not know where that had occurred but, in any event, one bus was pulled over and stopped at the side of the road at the time the incident was observed. Tr. 17398. Based on these factors, the Board puts little weight on the testimony of the Applicants' panel with regard to the bus routes in TON or how well those routes will accommodate evacuation of transit dependent persons.

4.1.11. While evacuation bus routes may initially have been developed under the direction of Massachusetts Civil Defense Agency or local municipalities, it is a simple truism that those agencies and municipalities, after attempting to devise a plan which would provide a reasonable assurance of protection, concluded that they were unable to accomplish that objective. While Applicants argue that the fact of state or local municipal input equates with state or local municipal beliefs of adequacy, the reverse is more likely: the Commonwealth of Massachusetts and municipalities within the emergency planning zone sincerely attempted to devise a plan which would provide protection for their inhabitants but, with ample justification, concluded that local conditions made such planning impossible.

4.1.18. This Board does not find persuasive the contention of the Applicants that, TON roadways within a floodplain are all a 100-year floodplain, and that there is thus only a probability of 0.10 that major flooding would occur on these roadways in any given year or that it is highly unlikely that these roadways will be rendered impassable by flooding at the time of an emergency at

Seabrook Station. First, flooding within TON has simply occurred in fact much more often than Applicants' predictions would indicate. Second, Applicants plainly do not fully understand TON's concerns with regard to flooding: it is not merely flood waters which renders roads impassable, debris which those waters deposit and leave on the roads continue to render the roads impassable after the water recedes. TON Dir., ff. Tr. 17801 at 3. Finally, the evidence Applicants rely on to make that assertion does not support that claim; the roads plainly could be in a 25, 50 or 75 year floodplain. Thus, while it may not be probable that these roadways will be rendered impassable due to flooding during an emergency evacuation, neither can it be said that such an event is highly unlikely. Indeed, as noted supra, such floods occur as frequently as fifteen times per year.

4.1.19. When bus evacuation routes become impassable to local flooding or other impediments, alternate routes to Plum Island do not exist. Tr. 17382-17383. While the SPMC provides for procedures to be followed if rerouting is necessary, no amount of rerouting will result in evacuees from Plum Island, conceivably numbering in the thousands, from being able to leave the island. Id.

10. COORDINATION OF GOVERNMENTAL RESOURCES AND RESPONSE

10.1.13. TON plainly does not have sufficient personnel and equipment to promptly implement the extensive traffic controls which TON officials believe would be necessary and which Applicants' witnesses concede would help to facilitate traffic movement along many critical evacuation routes. TON Dir., ff.

Tr. 17801 at 10-13, 16-17; Tr. 17355-17358; Tr. 17376-17377. Nor does TON possess equipment sufficient to enable it to remove impediments to travel such as ice cakes and other debris which become deposited on Plum Island Turnpike and other roads during flooding or storms. TON Dir., ff. Tr. 17801 at 17. Thus, TON could not implement the SPMC traffic management plan.

Respectfully submitted,

R. Scott Hill-Whilton
Lagoulis, Hill-Whilton & Rotondi
79 State Street
Newburyport, MA 01950
(508) 462-9393

Counsel for Town of Newbury

CERTIFICATE OF SERVICE

I, R. Scott Hill-Whilton, Counsel for the Town of Newbury, in the above-entitled action, hereby certify that I have caused copies of the enclosed documents to be served upon the persons at the addresses listed below, by first class, postage prepaid, mail and by Federal Express, postage prepaid, mail to those names which have been marked with an asterisk.

---

Ivan W. Smith, Chairman
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
East West Towers Building
4350 East West Highway
Bethesda, MD 20814

Robert R. Pierce, Esq.
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
East West Towers Building
4350 East West Highway
Bethesda, MD 20814

*Thomas G. Dignan, Esq.
Ropes and Gray
225 Franklin Street
Boston, MA 02110

Diane Curran, Esq.
Harmon, Curran & Towsley
Suite 430
2001 S Street, N.W.
Washington, D.C. 20009

Mitzi A. Young, Esq.
Edwin J. Reis, Esq.
Nuclear Regulatory Commission
Office of the General Counsel
11555 Rockville Pike, 15th Floor
Rockville, MD 20852

Jane Doughty
Seacoast Anti-Pollution League
Five Market Street
Portsmouth, NH 03801

Robert A. Backus, Esq.
116 Lowell Street
P.O. Box 516
Manchester, NH 03105

Dr. Richard F. Cole
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
East West Towers Building
4350 East West Highway
Bethesda, MD 20814

*Docketing and Service
U.S. Nuclear Regulatory Commission
1717 H Street
Washington, D.C. 20555

A.S.L.A.B. Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

John P. Arnold, Attorney General
Office of the Attorney General
25 Capitol Street
Concord, NH 03301

Kenneth A. McCollom
1107 W. Knapp Street
Stillwater, OK 74075

Paul McEachern, Esq.
Shaines & McEachern
25 Maplewood Avenue
Portsmouth, NH 03801

The Honorable Gordon J. Humphrey
United States Senate
Washington, D.C. 20510

H. Joseph Flynn, Esq.
Office of General Counsel
FEMA
Washington, D.C. 20472

Barbara Saint Andre, Esq.
Kopelman & Paige
77 Franklin Street
Boston, MA 02110

Phillip Ahrens, Esq.
Assistant Attorney General
Department of the Attorney General
Augusta, ME 04333

*Howard A. Wilber
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Comm.
Washington, D.C. 10555

Jack Dolan
FEMA
Region I
J.W. McCormack Post Office &
Courthouse Building, Room 442
Boston, MA 02109

*Alan S. Rosenthal
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory Comm.
Washington, D.C. 10555

Stephen Jonas, Esq.
Assistant Attorney General
Office of the Attorney General
Boston, MA 02108

Mr. William Lord
Selectman
Board of Selectmen
Amesbury, MA 01913

Judith H. Mizner, Esq.
79 State Street
Newburyport, MA 01950

Ashod N. Amirian, Esq.
145 South Main Street
P.O. Box 38
Bradford, MA 01835

*G. Paul Bollwerk, Chairmen
Atomic Safety & Licensing
Appeal Board
U.S. Nuclear Regulatory Comm.
Washington, D.C. 10555

George Iverson, Director
N.H. Office of Emergency Mgmt.
State House Office Park South
107 Pleasant Street
Concord, NH 03301

Signed under seal this 24 day of January, 1990.

R. Scott Hill-Whilton

R. Scott Hill-Whilton