February 24, 1986

UNITED STATES NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of		OFFICE OF		
Public Service Company of New Hampshire, et al.	)	BRANCH Docket Nos. 50-443 OL		
(Seabrook Station, Units 1 & 2)	)	OFFSITE EMERGENCY PLANNING		

NECNP CONTENTIONS ON THE NEW HAMPHIRE STATE AND LOCAL RADIOLOGICAL EMERGENCY RESPONSE PLANS

 Contentions on New Hampshire Radiological Emergency Response Plan

<u>RERP-1</u>. The New Hampshire Radiological Emergency Response Plan ("RERP") does not support the "reasonable assurance" finding required by 10 C.F.R. { 50.47(a)(1) in that it relies for implementation of the plans on local governments that have not approved or adopted the plans and that have refused to participate in the testing of the plans.

Basis: Under 10 C.F.R. { 50.47(a)(1), the Commission cannot issue an operating license unless it finds that there is "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency." There is no basis for such a finding in this case, since a number of local governments charged by the state and local emergency plans with responsibility for carrying out emergency response measures have protested the submission of plans on their behalf to the Federal Emergency Management Agency and the NRC. For instance, the town of Hampton Falls has refused to consider or adopt the



plan submitted to the NRC by the Civil Defense Agency. The towns of Hampton, Hampton Falls and Rye have served this Licensing Board with letters objecting to the filing with NRC of emergency plans that have neither been reviewed nor approved by their town meetings.<sup>1</sup> Those towns and the towns of South Hampton and Kensington have refused to participate in the upcoming exercise scheduled for February 26, 1986. Moreover, the town of Rye has taken the position that "no plan currently exists that could reasonably assure the safety of our residents in the event of any radiological emergency at Seabrook."<sup>2</sup>

<u>RERP-2</u> The New Hampshire RERP violates 10 C.F.R. ( 50.47(b)(3) as implemented by NUREG-0654 at { II.C.l.b in that the state has not specifically identified all areas in which it requires federal assitance or the extent of its needs; nor has it made arrangements to obtain that assistance; nor has it stated the expected time of arrival of Federal assistance at the Seabrook site or EPZ.

<u>Basis</u>: NRC regulations at 10 C.F.R. { 50.47(b)(3) require that "arrangements for requesting and effectively using assistance resources have been made" before offsite plans may be

<sup>1</sup>Letter from John R. Walker to Henry G. Vickers, dated January 16, 1986 (docketed January 21, 1986); letter from Robert A. Backus to Richard H. Strome, dated January 9, 1986 (docketed January 17, 1986); and letter from Rye Selectmen to Henry G. Vickers, dated January 7, 1986 (docketed January 17, 1986).

<sup>2</sup>Letter from Rye Selectmen to Henry G. Vickers, dated January 7, 1986. See note 1.

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approved. NUREG-0654 further provides that each state "must make provisions for incorporating the Federal response capability into its operation plan," including "specific Federal resources expected", and their "expected time of arrival at specific nuclear facility sites." { II.C.1.b. The New Hampshire RERP does not comply with these requirements in several respects. First, the RERP does not specifically identify all of the state's needs for assistance from the federal government. Section 1.4.5 identifies a need for support from the Coast Guard and Federal Aviation Administration for restriction of the coastal waters and the airport. The plan also identifies a need for "shellfish contamination screening" but does not describe the agency that it expects help from. Section 1.4.4 also vaguely describes the state's need for nontechnical and technical support, including "radiological monitoring." The exact nature and extent of these needs is not described.

This generalized identification of need does not give the Federal government sufficient notice of the state's expectations for assistance, nor does it give sufficient assurance that the necessary steps will be taken to protect the public health and safety. The plan must instead identify the particular functions that the State cannot carry out, and the equipment and number and qualifications of Federal personnel needed to carry them out.

Second, the plan speaks of requests for aid as a future task. RERP {{ 1.4.4, 1.4.5. There is no indication of the time at which Federal aid is to be arranged for--whether it is

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sometime in the near future, or after an emergency has occurred. In order to assure that Federal aid will be made available promptly upon request, specific types of Federal assistance must be prearranged by written contract with the Federal government. The arrangements for Federal aid must include an indication of when the aid is expected to arrive in the EPZ, as required by NUREG- 0654 { II.C.l.b. Without these measures, there can be no reasonable assurance that the state plan can and will be implemented.

<u>RERP-3</u>. The State of New Hampshire RERP does not satisfy the requirements of 10 C.F.R. { 50.47(b)(7), Appendix E, { IV.D.2, and NUREG-0654 in that it does not adequately provide that information will be made available to the adult transient population within the EPZ regarding how they will be notified and what their initial actions should be in an emergency.

Basis: The New Hampshire RERP proposes to educate the public regarding emergency plans for the Seabrook EPZ via distribution of an Emergency Public Information Booklet; adhesive information labels for homes, schools, hospitals, and recreation facilities; instructions in telephone books; and posters prominently displayed in public places. RERP at { 2.3.2. Of these instruction methods, the information labels, telephone book instructions, and posters are directed at the transient population. RERP, Table 2.3-1. The plan does not provide a reasonable assurance that these measures will afford the transient adult population within the plume EPZ "an adequate

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opportunity to become aware of the information" regarding how they will be notified and how they should respond in an emergency, as required by NUREG-0654, { II.G.2. For example,

a. Labels are intended to be posted in homes, schools, hospitals and recreation facilities. Posters are to be hung in state recreation facilities. There is no provision for visible public notice in hotels, motels, campgrounds, or restaurants, where much of the transient population will be. Moreover, the posting of public education notices should be mandatory rather than discretionary, since many Seabrook area merchants and proprietors are unlikely to voluntarily post labels with a discouraging message, such as evacuation instructions for a radiological emergency, on their premises.

b. According to the RERP, posters will be hung in state recreational facilities and distributed to local governments for posting. This does not provide adequate assurance that posters actually will be hung in all public parks and beaches where the large summer transient population is most likely to be located. The state should take responsibility for the posting of posters and provide a detailed map of all locations where they are to be hung.

c. The plan does not give any assurance that the posters will be made of durable material that will remain legible through a season of wind, rain, and storms.

d. Although a significant proportion of summer tourists in the Seabrook area are French-speaking Canadians, the RERP does not provide for any form of bilingual public instructions.

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<u>RERP-4</u>. The New Hampshire RERP violates 10 C.F.R. { 50.47(b)(5) in that it fails to establish adequate means to provide early notification and clear instructions to the populace within the plume exposure EPZ. In this respect, the RERP also violates Part IV.D.2 and 3 of Appendix E to Part 50, and NUREG-0654 Sections E.5, 6, and 7.

<u>Basis</u>: a. New Hampshire relies for public alerting of an emergency on an initial audible alert consisting of sirens and NOAA tone alert weather radios. RERP at { 2.1.4. However, the state has not presented any design for the Audible Alert System for the Seabrook Station EPZ. <u>Id</u>. Thus, there is no basis for a finding that the audible alert system will function so that all persons within the EPZ can hear the warnings, and there can be no finding of compliance with (50.47(b)(5)) or of reasonable assurance that the health and safety of the public will be protected during an emergency.

b. The New Hampshire RERP makes no provision for coordination of public alerting between New Hampshire and Massachusetts. In the absence of coordination, the two separate alert systems may conflict, cause confusion, and threaten the public health and safety.

c. The RERP relies primarily on radio broadcasting for communication of emergency instruction once people have been alerted by the sirens. RERP at 2.1-10. This does not constitute adequate means to address the thousands of people who may be at the beaches, parks and campgrounds in the Seabrook EPZ without

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ready access to radios during a radiological emergency in the summer. These people may have to walk a distance to their cars to hear a radio; they may have arrived in buses and be entirely without radios; and the RERP does not describe any ready access to radios and televisions. The RERP must provide for installation of loudspeakers at the beaches, parks and campgrounds in the EPZ to broadcast instructions in the event of a summer radiological emergency.

d. A significant proportion of the summer visitors to the Seabrook EPZ are French-speaking Canadians, who either do not speak English or have difficulty speaking and understanding English. Yet, the New Hampshire RERP does not provide for bilingual emergency announcements. In order to provide a reasonable assurance that the entire transient adult population in the Seabrook EPZ can be properly instructed during an emergency, the RERP must provide for emergency instructions in both English and French.

e. Sirens are ineffective in the winter or when the wind is wrong, and they do not cover enough of the area. (See Voorhees Report at 11.)

<u>RERP-5</u>. The New Hampshire state and local emergency response plans do not comply with the requirements of 10 C.F.R. { 50.47(b)(5), { IV.D.3 of Appendix E to Part 50, or NUREG-0654 { II.E.6, in that the audible alert systems on which they rely cannot be depended upon to provide prompt notification to the public in an emergency.

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Basis: Under NRC regulations, operating license applicants must demonstrate the existence of "means to provide early notification" of an emergency to the public within the plume exposure pathway Emergency Planning Zone. 10 C.F.R. { 50.47(b)(5). The notification system must be designed "to have the capability to essentially complete the initial notification of the public within the plume exposure pathway EPZ within about 15 minutes." Appendix E, { IV.D.3. The notification system must assure direct coverage of essentially 100% of the public within 5 miles of the plant in 15 minutes, and provide special arrangements to notify 100% of the population in the entire EPZ within 45 minutes. NUREG-0654, Appendix 3, implementing { II.E.6.

The RERP relies on sirens and NOAA tone alert weather radios for initial alerting in the EPZ. RERP at 2.1-7. Local plans rely on sirens, tone-activated radios, and mobile public-address units for initial public notification. See local plans, { II.A.

To the extent that any of these systems depend upon offsite power sources to operate, they cannot be relied upon to function during an accident at Seabrook. The Seabrook Station Probabilistic Safety Assessment ("PSA") prepared for Applicants by Pickard, Lowe and Garrick, Inc. in December of 1983, demonstrates that over half of the accidents at Seabrook leading to a significant radioactive release (and thus requiring an

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emergency response), would involve a loss of offsite power.<sup>3</sup> Therefore, the sirens, and any other notification devices dependent upon offsite power, are likely to be disabled and rendered useless in an emergency at Seabrook. In order to provide the necessary reasonable assurance that the populace in the EPZ can be notified promptly of an emergency, Applicants should provide for some alternative, independently powered audible alert system to compensate for failure of the sirens or other offsite power-dependent notification systems.

NECNP used statistics provided in Applicants' PSA to calculate that 55% of core melt accidents leading to a significant radioactive release would involve loss of offsite power. Of the six release categories defined in the PSA, NECNP considered those categories that would involve containment breach and lead to a major radioactive release, thus triggering an offsite emergency response. These r lease categories consisted of the following:

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RELEASE CATEGORY DESCRIPTION		FREQUENCY			
S6V	large containment	bypass	2.4 x	10-6	1:417,000
S2V	small containment	bypass	1.8 x	10-5	1: 56,000
S3V	late overpressure	failure	8.0 x	10-5	1: 12,500
	with vaporization	release			
S3	late overpressure	with no	5.8 x	10-5	1: 17,200
	vaporization relea	ise			

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The overall core melt frequency from these category releases is  $1.6 \times 10^{-4}$  or about 1:6,250.

The PSA demonstrates that loss of offsite power events contribute to about 38% of the total frequency of core melts leading to significant releases, or  $6.0 \times 10^{-5}$ . Seismic events, which cause a loss of offsite power by failing insulators on the distribution lines, contribute to about 17% of the total core melt frequency leading to a significant release, or 2.7 x 10-5. Id. Thus, loss of offsite power is involved in at least 55% of all core melt accidents which lead to atmospheric containment failure. <u>RERP-6</u>. The siren system relied on by the New Hampshire RERP for early notification will not provide adequate night-time warning to many individuals who are asleep indoors and who will not be able to hear the sirens. Thus, the state cannot provide the reasonable assurance of prompt notification that is required by 10 C.F.R. { 50.47(b)(5) and { IV.D.3 of Appendix E to Part 50.

Basis: This issue is currently under litigation in the Shearon Harris proceeding in North Carolina. The Licensing Board is sufficiently concerned about the problem that it has written to the Commission, suggesting that night-time siren notification may pose a generic safety problem for nuclear power plants. See letter from James L. Kelley, Dr. James H. Carpenter, and Glenn O. Bright to Commissioners, dated November 19, 1985. The Board noted that the probability that a siren sound level of 60dB would awaken people sleeping behind closed windows was essentially zero. Increasing the decibel level to 90 raised the probability of arousal to 70% of Shearon Harris area residents on a summer night (including those people sleeping behind open windows.)

The sirens in the Seabrook EPZ are designed to produce alarms at up to 125 decibels. RERP at 2.1-9. It is not clear whether 125 dB is sufficient to arouse 100% of the EPZ population that is sleeping behind closed windows with air conditioning or heating systems on. The decibel level may also be reduced in the frequently windy conditions at the seacoast. The Board should order a night-time test of sirens to determine their effectiveness. If complete effectiveness is not demonstrated,

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homes, motels, apartments, and all other sleeping facilities in the EPZ should be equipped with interior alarms to warn the occupants.

<u>RERP-7.</u> The New Hampshire RERP violates 10 C.F.R. (50.47(b)(1) in that it does not adequately demonstrate that "each principal response organization has staff to respond and to augment its initial response on a continuous basis."

Basis: NRC regulations at 10 C.F.R. { 50.47(b)(1) require "adequate staffing" for a continuous response to an emergency. As provided by NUREG-0654, the organizations must be capable of response on a 24-hour basis. { II.A.l.e. The RERP gives many emergency response organizations major tasks without assuring that they have adequate staff to fulfill their responsibilities, or that they can be carried out on a 24-hour basis. Section 1.3 describes the responsibilities of each agency. Many of the agencies have extensive and wide-ranging tasks. Yet, the plan does not describe the number of personnel that the agency has at its disposal to accomplish each task or make any assignments. It is thus unclear whether each agency has the personnel to carry out its functions or whether individuals or departments are actually prepared to undertake the tasks.

<u>RERP-8</u>. The New Hampshire RERP does not provide a "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency," as required by 10 C.F.R. { 50.47(a)(1), in that the plan does not provide reasonable assurance that sheltering is an "adequate

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protective measure" for Seabrook. Nor does the plan provide adequate criteria for the choice between protective measures, as required by { 50.47(b)(10) and NUREG-0654, { II.J.10.m.

Basis: The New Hampshire RERP relies on two principal protective actions for the public: sheltering and evacuation. The plan, however, contains only the most general criteria for determining when shelter should be used as opposed to evacuation. It provides no evaluation of the sheltering capacity of the Seabrook EPZ; or any analysis of how sheltering is expected to contribute to dose reduction in the event of an emergency. The following examples illustrate the plan's lack of analysis of the adequacy of sheltering, in spite of Seabrook area characteristics which raise considerable questions about the effectiveness of sheltering there.

a. The plan includes no assessment of the capacity to protect the public with sheltering facilities of any sort in the Seabrook area, whether during peak use periods or at other times. Thus, there is no basis for a finding of reasonable assurance that sheltering constitutes an adequate protective measure for all people who may need it.

b. The RERP suggests that in order to achieve the greatest protection, "shelter should be sought in the lowest level of the building (e.g., in basements), away from windows." RERP at 2.6-6. No assessment is made of the number of structures in the Seabrook EPZ that have basements. In fact, it may reasonably be assumed that an unusually high proportion of Seabrook area

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houses, many of which are summer homes, do not have the tight construction that is necessary for effective sheltering.

c. The RERP concludes that "generally, sheltering can provide protection for two to five hours." RERP at 2.6-7. This conclusion is inconsistent with the 1983 RERP's conclusion that sheltering would only be effective for two hours. No reason is given for the change in position. In any event, the plan does not give any indication of whether two to five hours is a reasonable period in which to expect passage of a radioactive plume. According to a sheltering study by the Sandia Laboratories, in the absence of data on wind characteristics, the duration of releases is typified by the release durations associated with the 14 categories investigated in the Reactor Safety Study (WASH-1400), which ranged between 0.5 and 10 hours, with most of the release durations falling between 0.5 and 3.0 hours. Aldrich and Ericson, Public Protection Strategies in the Event of a Nuclear Reactor Accident: Multicompartment Ventilation Model for Shelters SAND77-1555, January 1978, at 29. The RERP therefore gives no reasonable assurance that the sheltering duration of two to five hours is adequate.

c. The RERP makes no attempt to quantify the degree of protection offered by sheltering, concluding only that it "can reduce both whole body and thyroid doses." RERP at 2.2-6-7. The benefits of sheltering vary greatly, however, with the type of structure used. The Sandia Laboratories have calculated that the "shielding factor" for airborne radionuclides is only 0.9 for

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wood houses without basements, as opposed to a factor of 1.0 for outside. (For wood houses with basements, the factor was 0.6; and for large office or industrial buildings, 0.2). Aldrich, et al., <u>Public Protection Strategies for Potential Nuclear Reactor</u> <u>Accidents: Sheltering Concepts with Existing Public and Private</u> <u>Structures</u>, SAND77-1725, February, 1978, at 15, Table 3. Thus, reliance upon the large number of wood frame structures without basements in the Seabrook area would be an ineffective means of protection in the event of a major release of radioactivity. In any event, the State should not rely on sheltering until it has been demonstrated to be an effective means of dose reduction.

<u>RERP-9</u>. The New Hampshire RERP violates 10 C.F.R. { 50.47(a)(1), 50.47(b)(10) and NUREG-0654, { II.J.10 because it does not include evacuation time estimates.

Basis: In order to choose among protective actions, New Hampshire must have accurate projections of the time needed to evacuate the emergency planning zone. The volume of the New Hampshire RERP entitled "Evacuation Time Estimate" was not submitted with the plan. The plan cannot be approved without this critical decisionmaking tool.

<u>RERP-10</u>. The New Hampshire RERP violates 10 C.F.R. ( 50.47(b)(9) in that it fails to demonstrate that "adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use."

Basis:

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a. Only 6 persons (three 2-person teams) are to be deployed to determine ground level radiation in the EPZ, to assess radionuclide deposition on pastures and in animal feed, and to collect feed, liquid milk, and water samples for analysis in Department of Public Health (DPH) laboratories. RERP at 2.5-6, 2.5-15. Monitoring of other crops, orchards, and food processing facilities is to be conducted on an "as needed" basis by "supporting agency personnel" who are not identified. The provision of three teams to perform a large number of monitoring tasks over the entire EPZ is woefully inadequate to meet the task.

b. The RERP does not establish any monitoring locations, thus there is no reasonable assurance that the EPZ can be adequately monitored.

c. The RERP does not establish a location for the Incident Field Office (IFO), where the DPH representative will coordinate monitoring decisions and gather monitoring information.

d. From the time that a decision is made to deploy the monitoring teams, it will take an estimated one and one half hours before they even report to the IFO. RERP at 2.5-6. Thus, it may be several hours more before they reach a monitoring location and relay tests results back to the DPH. The time for deployment of monitoring personnel must be drastically reduced if the emergency response organization is to obtain the information it needs to make such crucial decisions as whether sheltering is needed and what direction an evacuation should take.

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e. The DPH laboratories where field samples are to be analyzed are not assured to be available on 24 hour basis, in violation of 10 C.F.R. { 50.47(b)(1) and NUREG-0654 {II.A.l.e. RERP at 2.5-20.

f. The state does not have the capacity to monitor the aerial plume; yet, no arrangements have been made for Federal assistance. RERP at 1.4-4.

<u>RERP-11</u>. The New Hampshire RERP violates 10 C.F.R. 50.47(b)(1' in that it does not provide adequate arrangements for medica services for contaminated injured individuals.

Basis: NRC regulations at 10 C.F.R. (50.47(b)(12) require that "Arrangements are made for medical services for contaminated injured individuals." The New Hampshire RERP simply identifies thirteen hospitals that are capable of treating radiation accident patients. They have the capacity to treat at most 70 people. One of them, the Exeter Hospital, considered a "primary" facility, is inside the EPZ and may thus be unavailable. This would decrease the hospital capacity to 60 people. This capacity is utterly inadequate to care for the thousands of individuals who may be contaminated and/or injured in a nuclear accident at Seabrook. Moreover, the plan does not provide adequate assurance that injured and contaminated individuals will receive prompt medical attention. Because roads are likely to be blocked by evacuating traffic, the plans should provide for medical transport by helicopter.

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<u>RERP-12</u>. The New Hampshire RERP does not provide for radioprotective drugs for institutionalized persons within the EPZ, as required by NUREG-0645, { II.J.10.e. Nor does it consider the circumstances under which radioprotective drugs should be administered to the general public, as required by {II.J.10.f.

Basis: NUREG-0654, { II.J.10.e, requires the state and local plans to make provision for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the EPZ whose immediate evacuation may be infeasible or very difficult. The New Hampshire RERP discusses the distribution of radioprotective drugs to emergency workers in { 2.7.3. However, no mention is made of any other groups that will receive the drugs. Nor does the plan discuss the quantity of drugs on hand or provisions for storage or distribution.

II. Contentions on New Hampshire Local Emergency Response Plans.

<u>NHLP - 1</u>. There is no reasonable assurance that the New Hampshire local emergency plans can and will be implemented during a radiological emergency because the plans have not been formally adopted by the local governments and because a number of communities have objected to the contents of the plans and have refused to participate in an exercise of the plans.

Basis: See basis for Contention RERP - 1.

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<u>NHLP - 2</u> The local emergency response plans for New Hampshire communities within the plume exposure emergency planning zone do not assure that "each principal response organization has staff to respond and to augment its initial response on a continuous basis," 10 C.F.R. { 50.47(b)(1), in the following respects:

a: The police forces for the towns surrounding Seabrook do not have sufficient personnel or resources to carry out their responsibilities under the plan.

Basis: Under the plans, the local police forces are responsible for assisting with public alerting and notification, providing traffic control along evacuation routes, and providing security at emergency facilities and for all evacuated areas. The local police forces are insufficiently staffed to carry out these responsibilities. Moreover, the plans show no consideration of how many personnel will be needed to carry out each task assigned in the plans. Hampton, for example, has 24 "regular" officers and 50 "special" officers who must cover eleven traffic control points, assist with public alerting and notification, and provide security for emergency facilities and evacuated parts of Hampton. The police, along with all other Hampton department heads, have informed the Hampton Selectmen that they are insufficiently staffed to carry out the Hampton emergency plan. See Letter from John R. Walker, Ansell W. Palmer, and Dona R. Janetos to Hon. John Sununu, dated October

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29, 1985.<sup>4</sup> In addition, according to a 1980 evacuation analysis prepared for the Federal Emergency Management Agency by Alan M. Voorhees and Associates (hereafter the "Voorhees Report"), local officials have stated that there are not enough police officers to fulfill the tasks assigned to them. (at 10, 11).

Greenland has only three sworn officers not only to carry out these responsibilities, but to operate as the communications link until the EOC is activated and to conduct patrols to alert the public. New Castle has only two sworn officers and six auxiliary officers. Newfields has only one full-time and four part-time officers. Rye has only seven full time officers (ten in the summer) and 17 part time officers. Hampton Falls has only one full time officer and three part time officers. South Hampton has only one sworn officer and two part time officers. Kensington has only six part-time officers. Stratham has only four officers, three sworn and one volunteer. East Kingston has only four part-time officers. Brentwood has only 10 part-time officers. Kingston, where the police are to assist in public notification and assist in emergency communications as well as performing the above tasks, has only two sworn officers and nine other personnel. Exeter has only nineteen officers and three auxiliary officers. These personnel resources are insufficient for the large number of tasks given to the police departments in the event of a nuclear emergency.

<sup>4</sup>This letter was served on the Licensing Board and docketed January 21, 1986.

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b. There is no assurance that necessary police and fire department personnel will be reachable or capable of responding promptly in the event of a radiological emergency.

Basis: According to the Voorhees Report, at any given time much of the police force and fire department will be unreachable or out of the area, and thus incapable of responding promptly to an emergency. This was borne out in NECNP's 1983 investigation of the living and working situations of emergency workers. In Kensington, for example, the Chief of Police worked part time and lived two towns away, a fifteen minute drive under normal conditions. More important, he was a full time police officer -one of only three sworn officers -- for the town of Stratham, and could be required to serve in Stratham when an accident happens. In South Hampton, the Chief of Police lived in East Kingston and worked a full shift in Plaistow, which is a half hour's drive away. Of the remaining officers, one was a selectman who would have other duties in an emergency. The others worked in locations from fifteen minutes away to as far as Boston, more than an hour away. NECNP also found that in Hampton, over a third of the permanent fire department employees and a fourth of the on-call fire department employees lived outside of Hampton. A number of those employees told the Fire Chief that they would be reluctant to return to Hampton during a radiological emergency. At that time, some of the Hampton fire department employees also worked part time at the Seabrook plant, driving ambulances.

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Although NECNP has not had sufficient time to update the data it collected in 1983, it is unlikely that there has been significant overall change in the nature of this problem. The towns continue to employ part time staff, many of whom are very likely to live and work in other places. The frequent absence of these individuals from their posts or from the EPZ pose problems of inadequate communication, delays in returning to the EPZ to implement emergency responses, and conflicting responsibilities and loyalties.

c. There is no assurance that emergency response personnel can be relied on to fulfill their responsibilities under the emergency plans.

Basis: According to the Voorhees Report, local officials believe that some, if not all policemen and firemen will evacuate their families rather than reporting to their posts. (at 10). This is particularly likely because so many police officers are not full-time, but work in other areas and would have to drive past their homes to reach the towns where they are on the police force. For example, Hampton fire department employees living outside the town of Hampton have told the Fire Chief that their families come first, and that they would not return to Hampton during a radiological emergency. Similarly, selectmen and a junior high school principal have stated that their children and families are their top priorities, whose protection will be assured before they go to their posts. The same problem arises with respect to school bus drivers. According to several bus companies NECNP spoke to, many of the buses relied on in the plan

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are kept at the drivers' homes. In addition, ninety percent of the sixty drivers employed by the Berry bus company are young mothers. Mr. Berry questioned whether these drivers would be available in an emergency.

d. The plans contain no demonstration that private companies or individuals who will be depended on to assist in an emergency will actually be able, committed and willing to perform those functions.

<u>Basis</u>: Although the plans refer to letters of agreement for provision of school buses and towing facilities, no such agreements are included in the plans. NECNP telephoned the six towing companies listed in the Hampton plan. Two of the companies said they were never informed that they were listed in the plan. An owner of one of those companies told NECNP that he did not believe any of his employees would stay to assist in a radiological emergency. Another company listed as having towing equipment told NECNP that the garage contracts its towing from another company and does not have its own vehicles.

e. All members of each emergency response organization should be surveyed to determine whether they intend to stay in the EPZ to implement the plan during an emergency.

Basis: The willingness of emergency response personnel to place their public responsibility before their responsibility to their families or their concern for their own safety was questioned in the Voorhees report. The issue has been raised by reluctant emergency response personnel in public meetings in the Seabrook area, and among fire department employees in the town of

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Hampton. Proprietors of bus and wrecking companies interviewed by NECNP also expressed skepticism regarding whether their employees would perform the duties assigned to them in the plans. The question of how many public employees and volunteers will actually be available to assist the emergency response organization must be addressed before there can be a reasonable assurance that adequate protective measures can and will be taken in the event of an emergency.

f. Under the local plans, the highway departments are responsible for assuring a successful, smooth evacuation by clearing roads of snow, stalled cars, and accidents and otherwise assuring that the roadways remain open for evacuation. The local highway departments do not have sufficient personnel or resources to fulfill these responsibilities, and the common arrangements for <u>ad hoc</u> assistance by private contractors are insufficient to assure that these responsibilities will be met.

Basis: Greenland has only one highway agent, with about seven hired on an "as needed" basis during winter storms. Seabrook has only 13 people in the highway department including the Water Department. New Castle has no highway department, but relies entirely upon a local contractor who serves as the town's road agent but there is not any provision guaranteeing that the contractor will perform during a radiological emergency. Newfields has only one person in the highway department, with others hired only on an as needed basis, with no assurance that people who may be needed in the event of an accident will be available for impromptu hire. South Hampton has only one highway

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agent. Kensington has only one person in the highway department. Stratham has only four full time highway workers and three additional part time workers when needed. East Kingston has no highway department and only one highway agent, but relies entirely upon contracting with private concerns. There is no assurance that the private firms will be available in the event of an emergency. Brentwood has only two personnel in the highway department. According to the Road Agent's inventory, Newton apparently has only one road agent to perform the tasks required of a highway department. Kingston has only three people in the highway department, and the plan provides that one of those individuals is to be at the EOC during the emergency. On their face, these resources are inadequate to perform the tasks assigned to highway department personnel. In addition, all of the road agents are to report to the EOC during an emergency, so they may be delayed or unable to perform their evacuation route maintenance responsibilities. Moreover, virtually all of the highway departments rely for towing capability on private companies, but the plans give no indication that those companies will provide their equipment and services in an emergency.

Moreover, the towns do not have enough trucks, wreckers, or emergency road equipment to keep the evacuation routes clear and deal with stalled cars, accidents and other traffic problems that would probably occur in the event of an evacuation. The towns rely on local garages to supply wreckers. Many of these garages were not consulted before they were listed in the plans and there is no guarantee that the equipment or drivers would be available

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in the event of an emergency.

g. Under the plans, the local fire departments are responsible for such tasks as assisting in monitoring the evacuation, for decontamination of affected individuals, operating and maintaining the EOC or the public alert system (PAS), and assessing emergency transportation needs. The local fire departments do not have sufficient personnel or resources to fulfill these responsibilities.

Basis: The fire departments of Kingston, Greenland, New Castle, Newfields, Stratham, East Kingston, and Brentwood operate largely on a volunteer basis. Hampton Falls has no paid firefighters and relies on an unspecified number of volunteer firefighters. Seabrook has only twelve full time firemen, with 23 on call. Rye has only six full time fire department employees and relies on volunteers when more personnel are needed. To the extent that the plans rely upon volunteers, there is no assurance that the personnel will be reachable or available in the event of an emergency. Even if the volunteers respond, however, the personnel and resources will be inadequate to perform their tasks. Moreover, permanent employees who do not live in the EPZ or in the towns where they work may refuse to report to their jobs during an emergency at the plant. Hampton Fire Department employees living outside of Hampton, for example, have stated that they will not return to Hampton in a radiological emergency, but will attend to their families instead. Finally, the Voorhees Report indicates that officials have stated concern over the insufficient number of firemen. (at 11)

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h. There is no assurance that local emergency response personnel will be reachable or that they will be able to respond soon enough to assure protection of the public health and safety.

Basis: Because so many local officials who are charged with implementing the emergency plans work only part time for their communities, they may often be inaccessible in an emergency or have difficulty returning promptly to the EPZ. For example, in a 1983 survey, NECNP found that the Civil Defense Director (CDD) plays a major role in each emergency plan, yet many may not be available. The South Hampton CDD was a commercial airline pilot who was often out of the area and who vacationed in the Virgin Islands during much of the winter. His assistant ran a business that was one and a half hours away from South Hampton in Massachusetts. The CDD for Kensington was often out of town for days at a time, and he worked in Manchester, which is an hour away. In Kensington, at least one of the three selectmen worked half an hour away. Further, according to the Voorhees Report, local officials believe that the paging notification systems that will be relied upon to contact emergency response personnel are weak and unreliable. (at 10)

The plans list telephone numbers for various emergency response personnel, but they provide no assurance that someone will actually be there to answer the phone. In a number of cases, there is no receptionist or answering service. For example, NECNP tried to call the Seabrook highway department for several hours one morning, and the phone was not answered.

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 The local plans do not provide for adequate backups or alternates for important positions in the event that assigned personnel are not available.

Basis: In Seabrook, there are no alternates listed for any of the positions other than Police Chief. In South Hampton, there are no alternates listed for the positions of Transportation Coordinator and Highway Agent, both of which are crucial to effective protective action. In New Castle, Seabrook. Hampton Falls, Newfields, Rye, Kensington, East Kingston, Brentwood, Newton, Exeter, and Hampton, there are no alternates listed for most of the key officials. Unless alternates are specified, the emergency response may break down if any key personnel are unavailable. This is particularly true for those emergency response offices maintained by only one person, such as the highway departments for Greenland, New Castle, South Hampton, and Kensington. If there is no one to even answer the phone in an emergency, it will be impossible to make substitutions on an ad hoc basis. Moreover, alternates must be identified to assure that each organization is capable of providing 24-hour per day emergency response. NUREG-0654, Part II(A).

j. Many of the posts crucial to an effective emergency response have not yet been filled.

Basis: The plans show that many important emergency response positions have not been filled. For example, neither Hampton Falls nor Kingston have a RADEF officer or Transportation Coordinator. The town of Newton lacks a Civil Defense Director, RADEF officer, or Special Facilities Transportation Coordinator.

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In Stratham, the position of RADEF officer is vacant.

<u>NHLP-3.</u> The local emergency response plans for the New Hampshire towns surrounding Seabrook do not adequately provide for "notification, by the licensee, of State and local response organizations and for notification of emergency response personnel by all organizations," as required by 10 C.F.R. ( 50.47 (b)(5), in the following respects:

a. Provision for notification and communication by Public Service Co. with the town emergency response organizations is inadequate in that it depends upon notification through the county dispatch and does not assure that the contact person will be available or can be reached in the event of a nuclear emergency. In each instance, there must be a dedicated telephone line to a location where an individual will always be on duty to receive the communication and take further action.

Basis: For the towns of Brentwood, East Kingston, New Castle, Newton, and Newfields, the plans provide that the contact between the licensee ar the town shall be made through the Rockingham County Dispatch to the Fire or Police Dispatcher on duty or on call. This is inadequate during off-duty hours since at that time the contact person will be reachable only by pagers or by telephone. Pagers have limited range, non-dedicated telephone lines are likely to be overloaded during an emergency, and there is no assurance that an off-duty official will be available when need be. The plan's provision for simultaneous pager contact is subject to the limitations of pager use discussed above, and it would result in confusion since there

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would be no one individual responsible for coordinating the town's emergency response. In addition, most of the towns have no pagers.

Most of the plans assert that they maintain "24 hour dispatch operations," but there is no explanation of the meaning of this term or whether these operations employ communications equipment that is adequate to assure contact.

South Hampton has no full time employees, and there is no one to answer the telephone in the town hall on a regular basis. South Hampton's plan provides for notification of the town only by pager to the selectmen and the Fire Department personnel. The first person to respond to the page must telephone Rockingham Dispatch. When contact is made, that person becomes responsible for coordinating the response although he or she may not be in a suitable location, have the necessary information, or otherwise be capable of fulfilling that responsibility. Moreover, there is only one telephone number for South Hampton to call--it is apparently an undedicated line--and that line will probably be busy with other calls, preventing contact necessary to implement the emergency plan. If a loss of power or busy signal makes the telephone unusable, the contact person is expected to use a radio at the Emergency Operations Center, which may be impossible or time-consuming.

Kensington's plan provides that the county will contact the Emergency Fire Department Dispatcher over an Emergency Fire Telephone, which the plan does not indicate is a dedicated line. Normally, the Fire Chief's wife serves as the primary dispatcher,

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but when she is unavailable, the responsibility goes to whoever picks up the telephone. Again, the splintered and uncertain lines of authority do not assure prompt notification of the appropriate personnel. Two-channel voice pagers should be provided to the responsible personnel to assure prompt notification and response.

Finally, according to the Voorhees Report, local officials question the reliability of the notification and paging systems, and they do not trust the efficiency or trustworthiness of the utility, which they do not believe will promptly and accurately notify communities in the event of an accident, including an accident that may require evacuation. (at 12) This atmosphere of lack of trust would severely hamper an emergency response effort.

b. The means for notification of local governments that an emergency has occurred is unreliable because it calls for action by plant operators. Notification of any plant malfunction should be mechanically communicated to an offsite entity.

Basis: The failure of the utility at Three Mile Island to promptly notify offsite authorities of the plant malfunctions which led to the accident until it was well underway illustrates the unreliability of utility notification of emergency events. It is simply not in the utility's interest to report problems at the plant until the last moment when it cannot be avoided. Therefore, the same mechanisms which notify the plant operators that plant technical specifications have been exceeded should also be made to notify offsite authorities. This will assure the

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earliest and most reliable notification to the local governments of accident conditions that may affect them.

<u>NHLP-4</u> Procedures to provide early notification and clear instruction to the populace within the plume exposure pathway EPZ, 10 C.F.R. 50.47(b)(5), are inadequate.

### Basis:

a. The primary means of notifying the public, the public alert system (PAS), which is to consist of sirens, and tone activated radios, is not sufficiently described in the plans to support a finding of compliance with this requirement. Among other things, it is impossible to determine the range or effectiveness of the equipment that will be employed, to determine whether the sirens are or will be installed in appropriate locations or provide adequate coverage under all conditions, including adverse weather.<sup>5</sup>

c. There has been no attempt by any of the emergency response organizations to determine or establish the time required for notifying and providing prompt instructions to the public within the plume exposure pathway EPZ. NUREG-0654 at 45.

d. The plans do not provide for bilingual messages for the large numbers of French-speaking individuals who are often in the area. See basis for Contention NHLP-5.

<sup>5</sup> Apparently, the siren design is contained in a separate report that has not been served on the parties.

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e. The local plans do not make adequate provision for notification of people with special notification needs. The plans must demonstrate capability to notify 100% of the people within 5 miles of the site. NUREG-0654 at 3-2. The plans do not identify individuals with special notification needs, nor do they make specific provision for their notification. For example, the Hampton plan states that the Fire Chief maintains a "confidential list" of people with special notification needs, but does not state how many people there are on the list. The plan lists a number of means by which they may be notified. However, in the absence of a description of the extent and nature of the need for special notification, there is no way to determine whether the town has adequate personnel or equipment to carry out the task.

NHLP-5 The local plans do not adequately assure protection of the public health and safety in that they make no provision for dealing with the serious language barrier faced by the large numbers of non-English speaking people often in the area and the difficulties that arise from that language barrier. The language barrier creates behavior problems that would seriously hamper the emergency response, rendering an orderly and safe evacuation impossible.

At a minimum, all relevant communications and informational material must be in both English and French. Emergency response personnel who may have to deal with non-English speaking people must be fluent in French, and all such personnel must be trained in handling the behavioral difficulties that may arise as a result of the language barrier.

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Basis: The influx of French speaking Canadian tourists to the Seabrook beaches during the summer is substantial. According to the Hampton Chamber of Commerce, Canadians accounted for about a third of Hampton Beach's business in 1983. Canadian tourism is also vigorously encouraged by local businesses. The Hampton Beach precinct spent approximately \$75,000 in advertising in 1983, a substantial amount of it Canada.

In order to assure that people are adequately protected through sheltering, evacuation, or any other protective measures that are found to be required, it is necessary to communicate with them and to obtain their cooperation. Experience with French speaking visitors indicates that many do not understand English well enough to understand communications in English, and that this difficulty often gives rise to fear and hostility that would seriously hamper an emergency response effort. This is particularly important since many French speaking visitors arrive in buses, which leave the area during the day, and have no independent means of transportation. Thus, they depend entirely upon guidance and actual transportation provided by the emergency response personnel. One example offered by a local resident was a French Canadian family that was unable to understand simple directions from a store to a campground, and had to be guided to the campground.

The failure to communicate effectively can also raise frustration levels to a point where reason and cooperation deteriorate. An example of such difficulty is an instance in which a French speaking family had some difficulties, which

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culminated in locking themselves out of their car, not a particularly unusual or stressful experience. They locked themselves in their hotel room and refused to come out until a French speaker was found to mediate for them.

<u>NHLP-6</u> The local emergency plans do not provide for an adequate range of protective actions, 10 C.F.R. (50.47(b)(10), because they contain inadequate means of relocation or other protection for those with special needs, those without private transportation, school children, or persons confined to institutions or elsewhere for health or other reasons. Moreover, the resources available to the towns for these purposes are inadequate to provide a reasonable assurance that the public will be protected in the event of an accident.

Basis: In many cases there is a telephone number to call for those without private transportation who need relocation assistance. Such a provision is inadequate not only because of the vulnerability of telephone systems in the event of an emergency, but because even if the telephone works, there is no assurance that the assistance will be available to all who need it. Moreover, the telephone system in the EOC may be overloaded. For example, there are 1,798 people in Exeter who have no transportation.<sup>6</sup> The telephones in the EOC would be quickly overloaded if even a quarter of these people called for help.

<sup>6</sup>Other communities also have significant populations without automobiles. According to Rye's emergency plan, for example, approximately 6% of the households are non-auto-owning.

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Moreover, there is no provision in the plans for coordinating transportation needs. With only a limited number of vehicles available for emergency transportation, the towns must carefully orchestrate the evacuation of people with special needs. The plans do not demonstrate that this has been or can be done.

The Seabrook EPZ also has special facilities whose evacuation and sheltering needs have not been met. The county has a 93-cell medium security jail, and a 290-bed intermediate care facility in Brentwood, with no vehicles for transportation. According to the Brentwood local plan both the nursing home and the county's 93-cell jail are the responsibility of the state and the facility. Brentwood plan at I-ll. As far as we know, the New Hampshire RERP contains no plans for protective measures at these facilities.

Also without transportation are the large numbers of tourists who are bussed to the beaches for summer day trips. These busses drop their passengers off during the day and return in the evening to retrieve them. The plans state that sheltering will not be used for the beach population on a summer day. Thus, some means must be provided to evacuate these people. The passengers have no means of transportation out of the EPZ during the day when the buses are elsewhere. The local plans make no provision for the evacuation of there transients and there is no guarantee that the bus drivers will return to retrieve them during an emergency.

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<u>NHLP-7</u> The state and local plans do not contain adequate guidelines for the choice of protective actions or information on which the choice of protective actions could be based in the event of an emergency. 10 C.F.R. { 50.47(b)(10).

<u>Basis</u>: In general, the New Hampshire plans rely on two alternative protective measures: evacuation and sheltering. Yet, only the state plan contains any information concerning the choice of protective actions. That discussion is totally inadequate to support a reasoned choice of protective actions. See Contention RERP - 8.

<u>NHLP-8</u> The local plans fail to meet the requirements of 10 C.F.R. ( 50.47(b)(10) in that:

a. The local plans do not adequately provide for the use of radioprotective drugs for emergency workers or institutionalized persons whose immediate evacuation may not be feasible.

b. The plans do not include a description of the methods by which decisions for administrating radioprotective drugs to the general population are made during an emergency and the predetermined conditions under which such drugs may be used.

c. They do not contain adequate provisions for notifying and providing follow-up information to those segments of the population that are in recreation areas or otherwise without easy access to television or radio.

<u>Basis</u>: NRC Regulations require provisions for the use of radioprotective drugs by local emergency workers and other parts of the population 10 C.F.R. 50.47 { (b)(11), NUREG-0654, {II.J.10. The local plans contain no such provisions on the

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basis that local emergency workers will be ordered out of town and replaced by state workers if the radioactive levels reach the upper limit of the PAGS for the general population. The assumption that PAGS will not reach this level immediately or at least not before state emergency workers are available to replace the local workers is unacceptable. Moreover, there may be a delay in evacuation if the buses haven't arrived or the traffic is too slow to evacuate expediently and yet their are no provisions to deal with the populace as a whole or special individuals who might be the last to be evacuated because of lack of mobility or transportation.

<u>NHLP-9</u> The current state of emergency planning and preparedness does not permit a finding of reasonable assurance that if an evacuation is necessary, it can be carried out in a manner that will assure protection of the public health and safety in that:

a. The consequences of an accident at Seabrook are such that evacuation must be completed promptly in order to avoid unacceptable damage to the public health and safety.

Basis: The evacuation time estimates submitted for Seabrook to date vary widely, from about 3 hours for some sectors, to 12 hours for the entire EPZ as estimated by the NRC. A consequence study done on Seabrook by Sandia Laboratories shows that even at the lower estimated evacuation times, unacceptable radiation exposure could result. The Sandia study found that for an accident involving large core melt and loss of most safety systems, even an evacuation delayed by only three hours could

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result in a mean of 13 and a peak of 6,880 acute fatalities; a mean of 226 and a peak of 26,700 acute injuries; and bone marrow radiation doses at a mean of 71.9 rems and a peak of 922 rems at 5 miles from the plant; and a mean of 23 rems and peak of 197 rems at 10 miles away from the plant. The results of the study also raise questions about the efficacy of sheltering and relocation. For the same type of accident, the study found that sheltering and relocation after 6 hours could result in a mean of 45 and a peak of 6,880 acute fatalities; a mean of 418 and a peak of 27,000 acute injuries; and bone marrow radiation doses at a mean of 137 rems and a peak of 1490 rems at 5 miles from the plant: and a mean of 47.7 rems and peak of 441 rems at 10 miles away from the plant. See computer data accompanying NUREG/CR-2239, SAND81-1549, Technical Guidance for Siting Criteria Development. The results of the study indicate that unacceptable accident consequences, including death, injury, and severe radiation exposure, could result unless evacuation could be conducted almost immediately. During the summer, it can take up to 2 hours to drive one mile in the area at Hampton."

b. Both local conditions and aspects of the emergency plans will result in families being scattered in various areas. The

<sup>7</sup>The Probabilistic Safety Assessment prepared for Seabrook also defines release categories with significant probabilities for which there is both relatively short warning time (i.e. less than the time needed for evacuation) and substantial release fraction, i.e. more than 5% of the core inventory of Iodine and Cesium and 1% or more release of other groups. See PSA at 11.6-33 and 12.3-32.

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families will clog the evacuation routes and disrupt the evacuation by attempting to reunite before proceeding to evacuate.

Basis: There are many different activities in the recreational areas, including staying on the beach, swimming, arcades, shops, and the like. Families often split up to pursue their separate interests, agreeing to rendezvous later. Parents will not depart without gathering their families together.

The local plans provide for parents and children in school to proceed separately to evacuation centers. This provision is unrealistic. Parents can be expected to return to the schools to retrieve their children instead of relying on others to protect them in such a serious situation. In addition, children from one family may attend different schools throughout the area, often with relocation centers different from those that their parents would be sent to. This may cause much confusion and panic. As reflected in the Voorhees Report, parents can reasonably be expected to attempt to pick up their children from the schools, or to return to the EPZ from the relocation center when their children do not show up, although this would disrupt an orderly evacuation.

c. There is no assurance that those responsible for driving the various busses and other forms of mass transportation will actually do so, rather than first assuring the safety of their own families or leaving the area altogether.

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Basis: The Voorhees Report indicates that local officials believe that "School bus drivers will refuse to enter or remain in the EPZ because of the radiation exposure danger." One bus company official, 90% of whose bus drivers are young mothers, expressed doubt to NECNP that those drives would be available in an emergency. (at 10) The plans contain no demonstration that school bus drivers have made commitments to remain in or return to the Emergency Planning Zone during a radiological emergency and transport students, rather than evacuate with their own families. In the absence of any such commitments, there can be no reasonable assurance that they actually will perform this function.

d. Many of the primary potential evacuation routes are prone to serious flooding, which has not been taken into account in the local plans or in the evacuation time estimates contained within those plans.

Basis: Route 286 and Route 1A have at times been closed near Brown's Fish Market in Hampton due to flooding. Parts of Route 51 and Ocean Boulevard are also subject to flooding.

e. The local plans do not adequately account for the crowds at the Seabrook dog track.

<u>Basis</u>: There may be as many as 100,000 at an event at the Seabrook dog track at the same time as there is a large crowd at the beaches. The dog track crowd would hamper evacuation, particularly along Route 107, where it is often nearly impossible even to get out of a local driveway during heavy traffic.

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f. Many of the evacuation routes are narrow and would be blocked by an accident or a stalled car, and those roads and the available traffic control personnel cannot handle both the traffic that will come from surrounding towns as well as the traffic generated by the town itself.

Basis: Where Ocean Boulevard joins Route 51, Route 51 is very narrow for several blocks. Route 286 is a two lane road where the shoulder is commonly used by traffic during busy periods. Since there is no place for a car to go if there is an accident or breakdown, it would clog either the shoulder or the roadway. The road also suffers from two serious bottlenecks at bridges where two or three lanes funnel into one. Police traffic control is necessary at the intersection of Routes 286 and 1A. along the shoulder of Route 286, and at the intersection of Route 286 and Washington Street. In Exeter, Route 101 is extremely narrow for about 10 miles and could become extremely congested in an evacuation. These are only a few examples of serious physical impediments to evacuation which are not discussed or evaluated in the local plans. The congested condition of these roads may not only generally impede evacuation, but may prevent effective removal of accidents or stalled vehicles. For example, on a Sunday afternoon in July of 1983, it took a Hampton Beach wrecking company 3 hours to reach a disabled car a mile away from the gas station.

Finally, the Voorhees Report indicates that local officials believe that local roads and traffic personnel cannot handle the volume of traffic that may come from other towns in the event of

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an emergency.

g. Gasoline supplies and availability are limited such that many of the vehicles that run low can be expected to run out, thereby clogging the narrow evacuation routes and hindering the evacuation.

Basis: There are only three gas stations in Hampton Beach, which are often out of gas, and Route 51, a major evacuation route, does not have any gas stations on it all the way to Route 95.

h. In order to assure a safe, prompt, and orderly evacuation in case one is ultimately called for, the emergency plans must provide for notification of all emergency response personnel and implementation of traffic control measures before or coincident with any public announcement of an event at the reactor that falls into any of the emergency action levels.

Basis: The experience at Three Mile Island demonstrated that public evacuation will begin soon after an announcement of an unusual condition at the reactor, even when the utility and the Commission are attempting to assure the public that the reactor poses no danger. Because the local plans do not call for activation of the offsite emergency response organizations until the most serious emergency action levels are reached, and because there is a lag time between declaration of the emergency and activation of the emergency response organization, premature evacuation would occur before traffic controls measures were in place, clogging the evacuation routes and making it difficult for traffic control personnel to reach the control points and

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implement the controls, thereby delaying or preventing implementation of the controls and significantly hindering the evacuation. This problem is particularly serious since so many of the local police officers work outside their towns, sometimes as far away as Boston, and will take a long time to return, if they do so at all.

i. <u>Basis</u>: Any orderly evacuation depends upon the public being willing to respond to traffic controls and other directions by public officials. Under ordinary circumstances, drivers consistently disobey such controls, with the result being gridlock in downtown rush hour situations and near collapse of automobile transportation networks. These driving habits arise from the determination of the driver to assure his or her own advantage regardless of the damage to others or to the good of all. The problem will be particularly serious at Seabrook since many of the drivers are likely to be from the Boston area, which is notorious for such poor and selfish driving habits. The presence of only a few such drivers would seriously hamper an evacuation by disrupting traffic controls and increasing the likelihood of automobile accidents.

Poor driver behavior under crowded traffic conditions is common in the Seabrook area. The Hampton Fire Chief has observed people trying to make four lanes out of two-lane roads when the traffic gets bad, thus making the roads impassable for emergency traffic. He has also observed drivers who disregard traffic barriers; and especially in the evenings, drunk and rowdy drivers who are likely to cause more traffic accidents and are less apt

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to follow directions.

<u>NHLP-10</u> The local plans do not contain adequate arrangement for medical services for contaminated injured individuals. 10 C.F.R. ( 50.47(b)(12) and NUREG-0654, { II.L.

a. The towns within the EPZ do not have sufficient ambulances or emergency medical equipment to care for contaminated injured individuals.

Basis: East Kingston, Newcastle, Newfields, Newton, North Hampton, Rye, South Hampton, Stratham and Hampton Falls have no ambulances as part of their town emergency equipment. Brentwood, Exeter, Greenland, Kensington, Kingston, and Portsmouth have only one ambulance each as part of their emergency equipment. Seabrook and Hampton have only two ambulances each. In the event of a radiological emergency, radiological contamination and other emergency situations cannot be handled without sufficient numbers of ambulances and emergency vehicles.

b. In addition to contaminated injured individuals, the towns must evacuate hospitals, convalescent homes and the nonambulatory residential population, many of which must be transported by emergency medical vehicles. The plans do not demonstrate that there are sufficient numbers of emergency vehicles to meet the needs of the communities.

Basis: The local plans contain estimated numbers of emergency medical vehicles that will be needed to evacuate the nonambulatory population. For example, Portsmouth has projected a need for 57 EMS vehicles in the event of an evacuation, Exeter has estimated need for 31 vehicles and Hampton, 23. The local

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plans do not describe how they these vehicles will be obtained or where they will be obtained from. Moreover, they do not state whether these vehicles are also needed to remove contaminated injured individuals, and if so, how the use of the vehicles is to be prioritized.

<u>NHLP-11</u> The New Hampshire local plans fail to take into consideration the effects of loss of offsite power on the ability of local governments to take adequate protective measures in the event of an emergency.

Basis: The basis for this contention is the high correlation of loss of offsite power with core selt accidents, as described in the testimony of Phillip B. Herr, submitted to the Licensing Board by the Commonwealth of Massachusetts on July 15, 1983. Loss of offsite power during an emergency could disable traffic lights: drawbridges: telephone equipment: lights, including street lights: gasoline pumps: sirens and other notification equipment, and thus could paralyze the emergency response. The plans must demonstrate consideration of the consequences of such a loss of offsite power: and provide for alternative means of assuring the functioning of equipment, such as equipping it with batteries.

<u>NHLP-12</u> The host plans are insufficient to provide for the registering and monitoring of evacuees at relocation centers.

Basis: NUREG-0654 requires the state and local plans to describe the means for registering and monitoring evacuees at relocation centers. The personnel and equipment at these centers should be capable of monitoring within about a 12 hour period all

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residents and transients in the EPZ arriving at the centers. The host plans also list numerous activities to be conducted at the reception centers, including the completion of forms, rendezvous coordination for families, a message center, emergency services, and monitoring and decontamination of evacuees. However, the host plans do not demonstrate the capability to provide these and other important services to the thousands of evacuees that will arrive at the relocation centers during an emergency. For instance, the mass care shelters in the city of Nashua have a capacity of only 7,200, while the populations of the five towns directed to evacuate to Nashua amount to 23,678, with a summer peak population of over 100,000. Moreover, the host plans do not describe the number or qualifications of staff, or the amount and types of supplies and equipment at the relocation centers. Nor do the plans discuss the manner in which the host communities will deal with the problems posed by the language barrier between English and French speakers.

The plans also assign responsibilities to various agencies in the host communities without describing their capacity to carry out their assigned tasks. For instance, the police department of Nashua is charged with supervising traffic entering the reception centers and controlling crowds at the reception centers. No description is given of the resources available for these tasks.

<u>NHLP-13</u> The host plans do not provide assurance that evacuees from the Seabrook EPZ will be monitored and will be decontaminated if necessary. The plans thus pose a threat that

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evacuees will carry radiological contamination into other areas of the state and even into other states and Canada.

Basis: The host plans are based on the assumption that not all evacuees will go to evacuation centers but will stay with friends or relations in other areas outside of the EPZ. In fact, the plans assume that a high percentage of the transient population will return home or continue with vacation or business activities in other areas. <u>See</u> Nashua plan at I-11. Those individuals who do not go to the relocation centers will not undergo radiological monitoring. Thus, contaminated individuals may spread contamination beyond the Seabrook EPZ to other parts of the state and beyond. There is thus no reasonable assurance that the general public will be protected in the event of a radiological emergency at Seabrook.

Respectfully submitted,

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February 24, 1986

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# USNRC

### CEFTIFICATE OF SERVICE

I certify that on February, 24 1986, copies of NEDOCRETARG SERVICE Contentions on New Hampshire State and Local Emergency Response Plans were served on the following by first-class mail or as otherwise indicated:

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