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ENERGY AND ENVIRONMENTAL SYSTEMS DIVISION
TELECOMMUNICATION MESSAGE

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FROM:

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COMMENTS:

NUCLEAR REGULATORY COMMISSION

Docket No. 50-443/444-02 Official Ex. No. 32
In the matter of Seabrook

Staff IDENTIFIED ✓
Applicant RECEIVED ✓
Intervenor REJECTED

Chief's Off'r
Director
DATE 5/25/88
By Mass Atty Gen Bore3, Lazarus
AK

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PDR ADDCK 05000443
G PDR

ENERGY AND ENVIRONMENTAL SYSTEMS DIVISION
TELECOMMUNICATION MESSAGE

Thursday

Date:

5-78

Total Pages:

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ENERGY AND ENVIRONMENTAL SYSTEMS DIVISION
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COMMENTS:

**REVISED TOWN OF HAMPTON
CONTENTION VIII TO REVISION 2**

FEMA Response

FEMA has addressed the Town of Hampton Revised Contention VIII and its basis of inadequate protective actions for the beach population by applying Planning Standard J (Evaluation Criteria J.9, J.10.a, J.10.g and J.10.m) in FEMA-REP-1.

The December 15, 1986 RAC review of the State and municipal plans, the amended portions of the RAC review dated _____, and the RAC position paper on the beach population issue transmitted to the State of New Hampshire dated _____ reflect FEMA's views on this issue. Specifically, FEMA's review comments on the New Hampshire State plan on this issue are provided on pages 64, 74, 86, 87, 88, and 91 of Section I. FEMA's review comments on the municipal plans on this issue are provided on page 17 of Section II. FEMA's review comments on the Evacuation Time Estimate (ETE) on this issue are provided on page 4 of Section VI.

FEMA relied upon the following documents in forming its conclusions on this issue: Revision 2 to the Hampton plan; Revision 2 to the New Hampshire State plan; and the Applicant's Motion for Summary Disposition of the Town of Hampton Revised Contention VIII dated March 25, 1987.

As indicated in the December 15, 1986 RAC review (page 64, Section I), determination of the adequacy of protective responses for the beach population remained open pending final review by the RAC of planned protective measures, and pending receipt of information from the state on the number of transients who would need transportation during an evacuation. The RAC has recently concluded (see RAC position paper dated _____) that the beach population can be appropriately protected by implementing provisions of the current (Rev. 2) New Hampshire emergency plans and that there appears to be no unique problem relative to the beach population that has not been adequately addressed.

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The bases for the RAC's conclusion on the beach population issue are provided in the position paper transmitted from FEMA to the State of New Hampshire on May __, 1987. Work on this position paper was initiated by a 12-31-85 memorandum from the RAC Chairman to the RAC members requesting their review and comments on the adequacy of plans for protecting the beach population (i.e., the transient beach population, and summer residents who inhabit unwinterized accommodations on or near the beach), and the possible need for special protective actions to protect the beach population. Written comments in response to the memorandum were received by the RAC Chairman during 1986 and 1987. A special meeting of the RAC was convened in April 1987 to review all comments and, if possible, to arrive at a unified position on whether the plans were adequate or inadequate to protect the beach population. On the basis of this review, the RAC resolved that, contingent on the completion of action by the State to resolve the other RAC concerns with the New Hampshire and local plans, those plans appropriately provide for dose savings for the spectrum of possible accidents and are adequate to provide reasonable assurance that the beach and unwinterized housing populations will be protected and that these plans will essentially meet the criteria of NUREG 0654 and the intent of the RAC regulations in this area. x

The following considerations were utilized by the RAC in arriving at its conclusion relative to the beach population:

- NH state and local plans essentially meet NUREG 0654 criteria generically
- Special provisions for beach populations in place
- No identified problems requiring unique or unaddressed solutions
- Provisions for early warning of beach populations
- Adequate transportation resources available for those needing public transit

- Beaches are nearly two miles from station affording delay in plume arrival and dilution and dispersion of plume
- Sea breezes would tend to keep plume from traveling directly toward beach when beaches are most populated
- ETEs for beaches are relatively small
- Containment at Seabrook is very strong; probability of prompt containment failure is negligible
- Containment bypass is unlikely to cause severe offsite problems
- Site specific studies for Seabrook indicate risks at two miles are comparable to NUREG 0396 analyzed risks at 10 miles
- "Reasonable assurance" does not equate with "absolute safety," i.e., guarantee of no exposures or exposures above the PAGs.

The above are described in further detail in the RAC position paper transmitted to the State of New Hampshire on May __, 1987.

Although the RAC has reached a conclusion on the beach population issue, the RAC still awaits receipt of information from the State of New Hampshire on the number of transients who would need transportation during an evacuation. The State Plan (ETE, Volume 6, Table 11-6) presently provides estimates of permanent residents who would require transportation, but does not include estimates for transients requiring transportation (RAC review, Section VI, comment 17, page 4). Although the number of transients without transportation is expected to be small and well within the available transportation resources (RAC review, Section I, page 74) identified in the plan, this information has not yet been provided to FEMA.

Because of the potentially large seasonal beach population, special precautionary protective actions for the beach population have been established by the State of New Hampshire (New Hampshire Plan, NHODA Procedures, Appendix F), including early precautionary evacuation. The use of public buildings for sheltering of transients without

transportation may be implemented on an "ad hoc" basis (RAC review, Section I, page 64).

As indicated in the RAC position paper on the beach population issue, provisions have been made in the plans to consider closing the beaches or restricting public access to the beach at the Alert emergency classification. At this classification level, no offsite action would be ordinarily warranted to protect the public, but its consideration beaches or prevent additional public access to the here would provide additional time to clear the beach, just in case the situation worsens. Even at the Site Area Emergency classification, one would ordinarily expect that offsite protective actions would not be necessary to protect the public. As noted in the State plan (page 2.1-13) precautionary protective actions for the beach population will be considered during the period of heaviest beach use, from May 15 through September 15. Details on the early precautionary protective actions for the beach population, including precautionary evacuation, are provided in the State plan procedures (NHCD A Procedures, Appendix F).

The use of early precautionary protective actions such as beach closing and evacuation are not the sole means for protection of the beach population. The beach population is, in effect, also protected by the unusually strong containment system at the Seabrook Station. As indicated in the RAC position paper on the beach population issue, Brookhaven National Laboratory (BNL) reviewed analyses performed by the Applicant and performed additional analyses of the systems and features of Seabrook Station. BNL concluded that (t)here is negligible probability of prompt containment failure (at Seabrook). Failure during the first few hours after core melt is also unlikely and the timing of overpressure failure (of containment) is very long compared to the RSS. Most core melt accidents would be effectively mitigated by containment spray operation. BNL reviews of containment bypass accident scenarios also indicated that significant releases from such accidents were also not likely in the first hours after a severe accident.

The RAC position paper further indicates that, in view of the New Hampshire plans for beach closure and access control as early as the Alert classification, the cited "negligible probability of prompt containment failure" at Seabrook and low consequence/low probability of serious containment bypass sequences, the plume travel time to the beach areas and the relatively short (2 to 4 hours) time estimated to clear the beaches, it appears that risks to the beach population are a small fraction of the cited risks in NUREG 0396 for this distance. Thus, even if there were a prompt, severe, contaminating release and a portion of the beach population were caught in or under the plume for two hours during the evacuation process, their exposure to deposited radioactivity would only be approximately 2/24 or less than one-tenth of the code assumed dose. In addition, they would be avoiding any additional exposure to the plume(s) after leaving this area.

FEMA Response (Further Basis)

FEMA has addressed the Town of Hampton Revised Contention VIII and its further basis of inadequate protective actions for residents of the Seacoast Health Center by applying Planning Standards H and J (Evaluation Criteria H.4, H.11, J.10.d, J.10.g, J.10.m) in FEMA-REP-1.

The December 15, 1986 RAC review of the State and municipal plans reflects FEMA's views on this issue. Specifically, FEMA's review comments on the New Hampshire State plan on this issue are provided on pages 67, 74, and 88 of Section I. FEMA's review comments on the municipal plans on this issue are provided on page 19 of Section II. FEMA's review comments on the State Compensatory Plan on this issue are provided on pages 6 and 8 of Section IV (Compensatory Plan subsection).

FEMA relied on the following documents in forming its conclusions on this issue: Revision 2 to the Hampton plan; Revision 2 to the New Hampshire State plan; and the Applicant's Motion for Summary Disposition of the Town of Hampton Revised Contention VIII dated March 25, 1987.

On the basis of the RAC review of Revision 2 of the State and municipal plans, FEMA has not yet received sufficient information to have assurance that the residents of the Seacoast Health Center will be properly evacuated in a timely manner in the event of a radiological emergency if Hampton does not implement the emergency response plan. Since Hampton has indicated that it will not participate in the planning and response to an accident at the Seabrook Station, it is necessary to determine the State's ability to implement compensatory measures for the Town of Hampton and to, therefore, provide for evacuation for the residents of the Seacoast Health Center.

The Hampton plan (page II-30) indicates that in the event of the evacuation of special facilities (such as the Seacoast Health Center), the Hampton Public Works Director will coordinate transportation services. However, if the Town of Hampton does not participate in the implementation of its response plan, the State will assume responsibility for coordinating the provision of transportation resources for the evacuation of the residents of the Seacoast Health Center. The concept of operations for the State's compensatory measures is provided in Appendix G of the State Plan. As indicated in this appendix and in the NHCDA Procedures (Volume 4 of State Plan), if a municipality is unable to respond to the emergency, an IFO Local Liaison will be assigned to coordinate the provision of transportation resources for evacuation. Although the RAC had no comments on the adequacy of this plan concept *per se*, the RAC has questioned the adequacy of the numbers of Local Liaison persons to be assigned and the adequacy of available communications resources available to implement this aspect of the compensatory plan. These items (NUREG elements H.4 and H.11, pages 6 and 8 of Section IV RAC comments on Compensatory Plan) were left open by the RAC pending provision of additional supporting information by the State. This information has not yet been provided to FEMA.

Relative to the special facilities plans themselves (i.e., those included as Appendix F of the municipal plans), ~~municipal plans~~ FEMA concludes that the health

x

care facility special plans, including that for the Seacoast Health Center, have been adequately revised and now contain adequately detailed procedures for evacuation and relocation of patients (RAC review, Section I, page 67). Although there are still numerous inconsistencies in the plan in bus needs estimates, all estimates indicate that overall the number of buses provided for in the letters of agreement are adequate and that additional transportation resources available from other organizations provide a large redundancy of resources (RAC review, Section I, page 74).

The bus boarding time of 10 minutes for residents of special facilities is provided in the State Plan Evacuation Time Estimate study, page 11-21. The RAC had no comment on this revised estimated bus boarding time.

In regard to sheltering residents of the Seacoast Health Center, the State indicates that sheltering is the preferred protective action. FEMA concludes that the plans have been adequately revised to take into account the sheltering protection factors for special facilities, including the Seacoast Health Center. A special tabulation of specific protection factors for each of the facilities, including the Seacoast Health Center, is present in Table 2.6-3 of the State plan (RAC review, Section I, page 67). The RAC review (Section I, page 88) indicates that the flow diagram in the State plan (Fig. 2.6-7) now properly reflects the decision-making process for the election between sheltering and evacuation, and that the treatment of institutionalized persons is now adequately detailed.

SAPL CONTENTION 16

FEMA Response

FEMA has addressed SAPL Contention 16 and its basis that plans do not make adequate provisions for the sheltering of various segments of the populace in the EPZ by applying Planning Standard J (Evaluation Criteria J.9, J.10.a, J.10.d, J.10.m) in FEMA-REP-1.

The December 15, 1986 RAC review of the State and local plans, the amended portions of the RAC review dated _____, and the RAC position paper on the beach population issue transmitted to the State of New Hampshire dated _____ reflect FEMA's views on this issue. Specifically, FEMA's review comments on the New Hampshire State plan on this issue are provided on pages 64, 67, 87, 88, 89 and 91 of Section I. FEMA's review comments on the municipal plans on this issue are provided on page 17 of Section II.

FEMA relied on the following documents in forming its conclusions on this issue: Revision 2 to the New Hampshire State and local plans; and the Applicant's Motion for Summary Disposition of SAPL Contention 16 dated March 25, 1987.

FEMA does not yet have all information to be provided by the state. As indicated in the December 15, 1986 RAC review (page 64, Section I), determination of the adequacy of protective responses for the beach population remained open pending final review by the RAC of planned protective measures, and pending receipt of information from the state on the number of transients who would need transportation during an evacuation. The RAC has recently concluded (see RAC position paper dated _____) that the beach population can be appropriately protected by implementing provisions of the current (Rev. 2) New Hampshire emergency plans and that there appears to be no unique problem relative to the beach population that has not been adequately addressed. The basis for the RAC's conclusion on the beach population issue

are provided in the position paper transmitted from FEMA to the State of New Hampshire on May ____, 1987. Details on how this position paper was developed, and a discussion on the key considerations used by the RAC in arriving at its conclusion are provided in the FEMA response to Revised Town of Hampton Contention VIII. Although the RAC has reached a conclusion on the beach population issue, the RAC still awaits receipt of information from the State of New Hampshire on the number of transients who would need transportation during an evacuation. Although the number of transients without transportation is expected to be small, this information has not yet been provided to FEMA. This also applies to NUREG element J.10.m as indicated by the RAC review comments on page 87 of RAC review Section I. X

State Plan Section 2.6.5 indicates that New Hampshire relies on two protective actions for limiting the direct exposure of the general public within the Plume Exposure EPZ. These two protective actions are sheltering and evacuation (State plan, page 2.6-4). The decision whether to shelter or evacuate is based on several variables, including dose reduction factors due to sheltering (State Plan, page 2.6-29). Sheltering can apply to the permanent resident population, institutionalized persons, and transients.

State Plan Section 2.6.5 (page 2.6-6) indicates that New Hampshire employs the "Shelter-in-Place" concept if sheltering is the chosen protective action. The plan indicates that "those at home are to shelter at home; those at work or school are to be sheltered in the workplace or school building" (State Plan page 2.6-6). As indicated in the RAC review comments (Section I, page 64) on the State plan, the use of public shelters is not proposed during a Seabrook Station emergency. The only exception is the possible use of public buildings for shelters for transients without transportation. Transients with transportation and "without access to an indoor location," including those at beaches and at campgrounds, will be advised to evacuate in their own vehicles. The use of public buildings for sheltering of transients without transportation is acceptable since the transients without transportation are expected to be a very small number. The

plan (p. 2.6-6) states that "Public buildings may be set up and opened as shelters for transients, on an ad hoc basis".

Because of the potentially large seasonal beach population, special precautionary protective actions for the beach population have been established by the State of New Hampshire (New Hampshire Plan, NHCDA Procedures, Appendix F), including early precautionary evacuation. The use of public buildings for sheltering of transients without transportation may be implemented on an "ad hoc" basis (RAC review, Section I, page 64).

As noted above, the use of public shelters is not proposed during a Seabrook Station emergency. As noted in the State plan (^Ppage 2.1-13), precautionary protective action such as early closing and evacuation of the beaches will be considered during the period of heaviest beach use, from May 15 through September 15. The use of precautionary protective actions are not the sole means for protection of transients such as visitors to beaches and campgrounds. They are, in effect, also protected by the unusually strong containment system at the Seabrook Station. This is described in detail in the RAC position paper on the beach population issue transmitted to the State on May _____, 1987, and is also summarized in the FEMA response to Revised Town of Hampton Contention VIII. Included is a discussion of the negligible probability of prompt containment failure at Seabrook. X

In regard to sheltering residents of special facilities such of hospitals, nursing homes, and jails, the State indicates that sheltering is the preferred protective action (State Plan, page 2.6-7). FEMA concludes that the plans have been adequately revised to take into account the sheltering protection factors for special facilities (RAC review, Section I, page 67). A special tabulation of specific protection factors for each of the facilities is present in Table 2.6-3 of the State Plan (RAC review, Section I, page 67). The RAC review (Section I, page 88) indicates that the flow diagram in the State Plan (Fig. 2.6-7) now properly reflects the decision-making process for the election between

sheltering and evacuation, and that the treatment of institutionalized is now adequately detailed.

The State indicates that the tabulation of specific sheltering protection factors referenced above (Table 2.6-3 of State Plan) is only for special facilities such as health care facilities and jails for which independent determinations of appropriate protective actions are made during an emergency (see State response on page 31 of RAC review Section I). The State indicates that "other types of special facilities such as schools and day care centers will follow the protective action recommendations prescribed for the general population." The State continues that the "protective action recommendation process utilizes conservative sheltering protection factors for general population decision-making." Section 2.6.5 of the State Plan now includes a generic external sheltering factors table which shows the levels of protection that can be expected from various building types in the EPZ (Table 2.6-4, page 2.6-10 of the State Plan).

AMENDED NECNP CONTENTION RERP-8

FEMA Response

FEMA has addressed NECNP Contention RERP-8, and its basis that there is no reasonable assurance that sheltering is an adequate protective measure for all members of the public who may need it, by applying Planning Standard J (Evaluation Criteria J.9, J.10.a, J.10.d, J.10.m) in FEMA-REP-1.

The December 15, 1986 RAC review of the State plan, the amended portions of the RAC review dated _____, and the RAC position paper on the beach population issue transmitted to the State of New Hampshire with FEMA letter dated _____ reflect FEMA's views on this issue. Specifically, FEMA's review comments on the New Hampshire State plan on this issue are provided on pages 64, 67, 87, 88, 89, and 91 of Section I.


FEMA relied on the following documents in forming its conclusions on this issue: Revision 2 to the New Hampshire State plan; and the Applicant's Motion for Summary Disposition of NECNP Contention RERP-8 dated March 25, 1987.

FEMA does not yet have all information to be provided by the state. As will be noted later in this response, this missing information consists of the number of transients who would need transportation during an evacuation.

State Plan section 2.6.5 indicates that New Hampshire relies on two protective actions for limiting the direct exposure of the general public within the Plume Exposure EPZ. These two protective actions are sheltering and evacuation (State Plan, page 2.6-4). The decision whether to shelter or evacuate is based on several variables, including dose reduction factors due to sheltering (State Plan, page 2.6-29). Sheltering can apply to the permanent resident population, institutionalized persons, and transients.

State Plan section 2.6.5 (page 2.6-6) indicates that New Hampshire employs the "Shelter-in-Place" concept if sheltering is the chosen protective action. The plan

indicates that "those at home are to shelter at home; those at work or school are to be sheltered in the workplace or school building" (State Plan page 2.6-6). As indicated in the RAC review comments (Section I, page 64) on the State plan, the use of public shelters is not proposed during a Seabrook Station emergency. The only exception is the possible use of public buildings for shelters for transients without transportation. Transients with transportation and "without access to an indoor location" will be advised to evacuate in their own vehicles. The use of public buildings for sheltering of transients without transportation is acceptable since the transients without transportation are expected to be a very small number. The plan (p. 2.6-6) states that "Public buildings may be set up and opened as shelters for transients, on an ad hoc basis".

As indicated in the December 15, 1986 RAC review (page 64, Section I), determination of the adequacy of protective responses for the beach population remained open pending final review by the RAC of planned protective measures, and pending receipt of information from the state on the number of transients who would need transportation during an evacuation. The RAC has recently concluded that the beach population can be appropriately protected by implementing provisions of the current (Rev. 2) New Hampshire emergency plans and that there appears to be no unique problem relative to the beach population that has not been adequately addressed. The bases for the RAC's conclusion on the beach population issue are provided in the position paper transmitted from FEMA to the State of New Hampshire on May __, 1987. Details on how this position paper was developed, and a discussion on the key considerations used by the RAC in arriving at its conclusion are provided in the FEMA response to Revised Town of Hampton Contention VIII. Although the RAC has reached a conclusion on the beach population issue, 

The RAC still awaits receipt of information from the State of New Hampshire on the number of transients who would need transportation during an evacuation. Although the number of transients without transportation is expected to be small, this information

has not yet been provided to FEMA. This also applies to NUREG element J.10.m as indicated by the RAC review comments on page 87 of RAC review Section I.

Because of the potentially large seasonal beach population, special precautionary protective sections for the beach population have been established by the State of New Hampshire (New Hampshire Plan, NHCDA Procedures, Appendix F), including early precautionary evacuation. The use of public buildings for sheltering of transients without transportation may be implemented on an "ad hoc" basis (RAC review, Section I, page 64).

As noted above, the use of public shelters is not proposed during a Seabrook Station emergency. As noted in the State plan (page 2.1-13), precautionary protective actions such as early closing and evacuation of the beaches will be considered during the period of heaviest beach use, from May 15 through September 15. The use of precautionary protective actions are not the sole means for protection of transients such as visitors to beaches and campgrounds. They are, in effect, also protected by the unusually strong containment system at the Seabrook Station. This is described in detail in the RAC position paper on the beach population issue transmitted to the State on May ____, 1987, and is also summarized in the FEMA response to Revised Town of Hampton Contention VIII. Included is a discussion of the negligible probability of prompt containment failure at Seabrook.

In regard to sheltering residents of special facilities, the State indicates that sheltering is the preferred protective action (State Plan page 2.6-7). FEMA concludes that the plans have been adequately revised to take into account the sheltering protection factors for special facilities (RAC review, Section I, page 67). A special tabulation of specific protection factors for each of the facilities is present in Table 2.6-3 of the State plan (RAC review, Section I, page 67). The RAC review (Section I, page 88) indicates that the flow diagram in the State plan (Fig. 2.6-7) now properly reflects the decision-making process for the election between sheltering and

evacuation, and that the treatment of institutionalized persons is now adequately detailed.

The State indicates that the tabulation of specific sheltering protection factors referenced above (Table 2.6-3 of State Plan) is only for special facilities such as health care facilities and jails for which independent determinations of appropriate protective actions are made during an emergency (see State response on page 91 of RAC review Section I). The State indicates that "other types of special facilities such as schools and day care centers will follow the protective action recommendations prescribed for the general population." The State continues that the "protective action recommendation process utilizes conservative sheltering protection factors for general population decision-making." Section 2.6.5 of the State Plan now includes a generic external sheltering factors table which shows the levels of protection that can be expected from various building types in the EPZ (Table 2.6-4, page 2.6-10 of the State Plan).