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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
ADMINISTRATIVE AND
ADJUDICATION STAFF

In the Matter of)
)
YANKEE ATOMIC ELECTRIC COMPANY) Docket No. 50-029-LA
)
(Yankee Nuclear Power Station))
)

NRC STAFF'S RESPONSE TO CONTENTIONS
FILED BY NEW ENGLAND COALITION ON
NUCLEAR POLLUTION AND CITIZENS AWARENESS NETWORK

INTRODUCTION

Pursuant to 10 C.F.R. § 2.714(c) and the Atomic Safety and Licensing Board's Order of November 30, 1998, the staff of the Nuclear Regulatory Commission (Staff) hereby responds to "New England Coalition on Nuclear Pollution's [NECNP] Contentions" (NECNP Contentions) and to "Citizen Awareness Network's [CAN] Contentions" (CAN Contentions) filed on January 2 and January 5, 1999, respectively. As set forth below, NECNP and CAN fail to offer at least one admissible contention, as required by 10 C.F.R. § 2.714(b). Accordingly, their Petitions for Leave to Intervene should be denied.

BACKGROUND

On January 28, 1998, the Commission published a notice of opportunity for a hearing concerning Yankee Atomic Electric Company's (YAEC) License Termination Plan (LTP) for its Yankee Nuclear Power Station (YNPS). *Biweekly Notice: Applications and Amendments to Facility Operating Licenses Involving No Significant Hazards Considerations, Yankee Atomic Electric*

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Company, Docket No. 50-029, Yankee Nuclear Power Station, Franklin County, Massachusetts, 63 Fed. Reg. 4308-09, 4328 (1998). Initially, in response to the *Federal Register* notice, NECNP and CAN filed letters to the Commission requesting leave to intervene. Letter to the Secretary of the Commission from New England Coalition on Nuclear Pollution, February 24, 1998; Letter to Chairman Shirley A. Jackson from Citizens Awareness Network, February 26, 1998. In response to those letters, an Atomic Safety and Licensing Board (Board) was established on March 9, 1998. 63 Fed. Reg. 13077 (1998). On March 25, 1998, the Board issued an order permitting NECNP and CAN to file amended petitions. On April 6, 1998, in response to that Order, NECNP and CAN filed amended petitions to intervene. "New England Coalition on Nuclear Pollution, Inc. Amended Petition to Intervene in License Amendment Proceeding for the Yankee Nuclear Power Station License Termination Plan" (NECNP Amended Petition); "Citizens Awareness Network's Amended Petition to Intervene in License Amendment Proceeding for the Yankee Nuclear Power Station License Termination Plan" (CAN Amended Petition).

On June 12, 1998, the Board issued a Memorandum and Order (Decision on Standing). *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), LBP-98-12, 47 NRC 343 (1998). In LBP-98-12, the Board denied NECNP's and CAN's amended petitions for failure to establish standing to intervene in the proceeding. *Id.* at 12-14. Both NECNP and CAN filed appeals of the Board's decision to the Commission. "New England Coalition on Nuclear Pollution's Brief on Appeal of LBP-98-12," July 10, 1998; "Citizens Awareness Network's Inc., Brief on Appeal of LSLBP 98-736-01[sic]" (CAN Appeal), dated June 27, 1998.

On October 23, 1998, the Commission issued CLI-98-21, affirming in part and reversing in part the Board's decision in LBP-98-12. *Yankee Atomic Electric Co.* (Yankee Nuclear Power

Station), CLI- 98-21, 48 NRC at ___, slip op. (Oct. 23, 1998). The Commission reversed the Board's denial of NECNP's and CAN's petitions for leave to intervene and requests for a hearing, holding that NECNP and CAN had established standing to intervene in the proceeding. *Id.* at 23-24. The Commission held that NECNP and CAN must still present at least one admissible contention in order to obtain a hearing in this proceeding. *Id.* at 28. The Commission, therefore, remanded the proceeding to the Licensing Board for further action. *Id.*

On October 27, 1998, the Board issued an order scheduling a prehearing conference for December 16, 1998, as well as requiring NECNP and CAN to file their contentions by November 30, 1998. "Memorandum and Order" (Oct. 27, 1998) (Scheduling Order). Upon request by CAN, the Board subsequently amended the Scheduling Order, allowing NECNP and CAN until January 5, 1999 to file contentions, with Staff and Licensee responses due on January 20, 1999. "Change in Filing Schedules and Date of Prehearing Conference" (Nov. 30, 1998). The prehearing conference was also changed to January 26, 1999. *Id.* Pursuant to the Board's order, the Staff responds to the contentions filed by NECNP and CAN.

DISCUSSION

1. Legal Standards for the Admission of Contentions

In addition to demonstrating the required interest in a proceeding, a petitioner must submit at least one valid contention that meets the requirements of 10 C.F.R. § 2.714 in order to be permitted to participate in a licensing proceeding as a party. 10 C.F.R. § 2.714(b)(1); *Yankee Atomic Electric Company* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996). For a contention to be admitted, it must meet the standard set forth in 10 C.F.R. § 2.714(b)(2), which provides that each contention must consist of "a specific statement of the issue of law or fact to be

raised or controverted" and must be accompanied by:

- (i) A brief explanation of the bases of the contention;
- (ii) A concise statement of the alleged facts or expert opinion which supports the contention . . . together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion;
- (iii) Sufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact.

10 C.F.R. § 2.714(b)(2). The failure of a contention to comply with any one of these requirements is grounds for dismissing the contention. 10 C.F.R. § 2.714(d)(2)(i); *Arizona Public Service Company* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155-56 (1991). Further, a contention must also be dismissed where the "contention, if proven, would be of no consequence . . . because it would not entitle [the] petitioner to relief." 10 C.F.R. § 2.714(d)(2)(ii).

It is the petitioner's obligation to formulate the contention and provide the information necessary to satisfy the basis requirement of 10 C.F.R. § 2.714(b)(2). *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-98-17, slip op. at 2-3 (Sept. 15, 1998); *See also Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998). Mere reference to documents, however, does not provide an adequate basis for a contention. *Baltimore Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant Units 1 and 2), CLI-98-25, 48 NRC ___, slip op. at 19 (Dec. 23, 1998). The absence of specificity and support is, without more, a sufficient ground for rejecting a contention. *See id.*

Moreover, licensing boards are delegates of the Commission and, as such, they may "exercise

only those powers which the Commission has given to [them]." *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976). It is well established under Commission precedent that a contention is not cognizable unless it is material to a matter that falls within the scope of the proceeding for which the licensing board has been delegated jurisdiction as set forth in the Commission's Notice of Opportunity for Hearing. *Id.* at 170-71; see also *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 426-27 (1980); *Commonwealth Edison Co.* (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980).

With respect to the scope of the above-captioned proceeding, the Commission stated that:

The scope of the LTP application (and therefore the scope of this proceeding) is defined solely in terms of 10 C.F.R. § 50.82(a)(10), as read in light of the filing requirements of 10 C.F.R. § 50.82(a)(9)(ii)(A)-(G).

Yankee Atomic, CLI-98-21, at 16. Section 50.82(a)(9)(ii)(A)-(G) requires that the LTP include:

- (A) A site characterization;
- (B) Identification of remaining dismantlement activities;
- (C) Plans for site remediation;
- (D) Detailed plans for the final radiation survey;
- (E) A description of the end use of the site, if restricted;
- (F) An updated site-specific estimate of remaining decommissioning costs; and
- (G) A supplement to the environmental report, pursuant to § 51.53, describing any new information or significant environmental change associated with the licensee's proposed termination activities.

Under Section 50.82(a)(10), the Commission shall approve an LTP if it "demonstrates that the remainder of the decommissioning activities will be performed in accordance with the regulations of this chapter, will not be inimical to the common defense and security or to the health and safety of the public and will not have a significant effect on the quality of the environment." 10 C.F.R. § 50.82(a)(10).

Considering the scope of the proceeding as defined by the Commission, the Staff's responses to NECNP's and CAN's proposed contentions are set forth below.

2. NECNP's Contentions

As demonstrated below, none of the contentions proffered by NECNP meet the above standards. NECNP's Amended Petition should, therefore, be denied.¹

Contention A. YAEC's LTP Does Not Adequately Characterize the Site.

Contrary to the requirements of 10 CFR 50.82, the site characterization data and methodology YAEC employs in its LTP is not adequate in that YAEC cannot demonstrate that the LTP will assure the level of protection of public health and safety which the NRC regulations mandate. 10 CFR 50.82(a)(9), (10), (11).

NECNP Contentions at 2. NECNP offers ten bases as support for this contention. As discussed below, none of these bases support the admission of Contention A.

Basis 1. Background Radiation

As its first basis, NECNP claims that in order to accurately determine the level of background radiation, "YAEC must compare site survey readings to the background radiation levels of

¹ Although NECNP does provide the Declaration of Dr. Marvin Resnikoff to support its Contentions, all Dr. Resnikoff declares is that the "technical facts presented in the contentions are true and correct to the best of my knowledge, and the conclusions drawn from those facts are based on my best professional judgment." Declaration of Dr. Marvin Resnikoff at ¶ 3. This general statement, however, does not meet the requirement that contentions be supported by a concise statement of the alleged facts or expert opinion which support the contention. See 10 C.F.R. § 2.714(b)(2)(ii). NECNP must provide documents or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention. *Private Fuel Storage, L.L.C.*, LBP-98-7, 47 NRC 142, 180 (1998). Moreover, an expert opinion that merely states a conclusion without providing a reasoned basis or explanation for that conclusion is inadequate. *Id.* at 181.

neighboring properties.” *Id.* at 4. According to NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination, which provides guidance to licensees on how to conduct radiological surveys in order to demonstrate that it has met the release criteria established by the NRC, radiation samples are not required to be taken offsite to determine background radiation. Pursuant to this guidance, background radiation can be determined by sampling at locations onsite *or* in areas in the immediate vicinity of the site that are unaffected by site operations. NUREG/CR-5849 at 2.6 (emphasis added). NECNP fails to provide any support for its assertion that sampling must be done offsite in order to determine background radiation values. This basis is, therefore, not supported by fact or expert opinion. *See* 10 C.F.R. § 2.714(b)(2)(ii). Accordingly, it does not support the admission of Contention A. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998); *Sacramento Municipal Utility Dist.* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 232-33 (1993) *review declined*, CLI-94-2, 39 NRC 91 (1994) (Licensing Board dismissed a proposed contention because the petitioner did not provide data, expert opinion, or other sources to counter the information in the record).

Basis 2. Onsite-direct Gamma

It appears that NECNP is raising two concerns under this heading. First, NECNP states that “[a]ccording to the LTP, YAEC has not yet conducted a complete survey of the YAEC site.” NECNP Contentions at 5. NECNP goes on to claim that a complete survey must be done “to determine the presence and location of higher than background radiation readings.” *Id.* In support of this assertion, NECNP references only one subsection of the section in the LTP discussing site characterization. By focusing on this one subsection of the LTP, the surface soil, NECNP ignores

the rest of the LTP, which indicates that YAEC has taken many other samples in order to characterize the site. *See* LTP, Rev. 0 at 2-4 to 2-8 (as amended in Rev. 1) (listing areas of sampling for site characterization). In addition, the LTP indicates that the site characterization, including the environmental surveys, is ongoing. *See id.* at 2-1, 2-3. Further, YAEC has used, and will continue to use, guidance from NUREG/CR-5849 to conduct surveys. *See id.* at 2-1. NECNP's one reference to the LTP fails to show that the site surveys have been or will be incomplete. This basis, therefore, does not show that a genuine dispute exists with YAEC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii).

NECNP's second concern relates to measurements of background gamma radiation. Specifically, NECNP asserts that above background gamma readings must be taken with a non-shielded detector in order to determine the direct gamma radiation exposures for future residents. NECNP Contentions at 5. NECNP also appears to imply that the *in situ* gamma spectroscopy measurements that were collimated to reduce onsite background radiation are inadequate to determine radiation exposures. *See id.* NECNP also asserts that survey readings above background cannot be ascertained unless background radiation is first determined. *See id.* NECNP fails to provide any support for its assertion that above background gamma readings must be taken with a non-shielded detector or that YAEC's readings are inadequate. Further, YAEC has stated in the LTP that it will determine background radiation. *See* LTP, Rev. 1 at A-33. NECNP has not demonstrated a genuine dispute on a material issue of law or fact with YAEC; thus this basis does not support the admission of Contention A. 10 C.F.R. § 2.714(b)(2)(iii).

Basis 3. Direct Gamma Exposure Rates of $5\mu\text{R/h}$ Are Not Protective.

NECNP argues that gamma exposure rates of $5\mu\text{R/h}$ are not protective and will not maintain the total effective dose equivalent (TEDE) to less than 15 mrem/yr for certain individuals. NECNP Contentions at 5.

The Commission's regulations in 10 C.F.R. Part 20, Subpart E, set forth the radiological criteria for license termination. Section 20.1401(b)(3) states, that those criteria are not applicable to sites that submit a sufficient LTP before August 20, 1998, and such LTP is approved by the Commission in accordance with the criteria identified in the SDMP Action Plan (Site Decommissioning Management Plan) before August 20, 1999. 10 C.F. R. § 1401(b)(3).

The SDMP Action Plan, which the Commission published in the *Federal Register*, identifies the criteria applicable to sites terminating their licenses under section 20.1401(b)(3). These include cleanup criterion of less than 5 microroentgen per hour above natural background at 1 meter for cobalt-60, cesium-137 and Europium-152 that may exist in concrete, components and structures. 57 Fed. Reg. 13,389, 13,390 (1992). YAEC states in the Executive Summary to its Final Site Survey Plan that its site-specific release criteria are consistent with the criteria identified in the SDMP Action Plan and, therefore, comply with 10 C.F.R. 20.1401(b). LTP, Rev. 0 at A-vii. YAEC states that its final survey methods were derived from Regulatory Guide 1.86, Draft NUREG/CR-5849 and Draft NUREG-1500, "Working Draft Regulatory Guide on Release Criteria for Decommissioning: NRC Staff's Draft for Comment." *Id.* Since the SDMP Action Plan is incorporated into the regulation, the criterion of 5 microroentgen is also part of the regulation. Therefore, NECNP's challenge is an impermissible attack on the Commission's regulations. 10 C.F.R. § 2.758.

As regards NECNP's allegation that a TEDE greater than 15 mrem/yr to women and children

would result from the use of 5 microroentgen per year gamma exposure limit, this, too, is a challenge to the regulations and may be pursued only according to the procedures in 10 C.F.R. § 2.758.² Finally, NECNP does not provide any bases that doses to women and children would result in dose greater than 15 mrem/yr.

Basis 4. Direct γ Exposure Rates at 1 Meter Above Ground Will Not Protect Children and Other Persons

As its Basis 4, NECNP states that surveys taken at a height of 1 meter above the ground are not protective of children and other persons. NECNP Contentions at 8. NECNP bases its assertion on the fact that children, women, short people, and many handicapped individuals are smaller and closer to the radiation source. *Id.* NECNP also states that external radiation doses increase with decreasing body size. *Id.* Thus, NECNP concludes that children and small adults will receive higher doses than adult males. *Id.* This basis must be rejected for the same reason that Basis 3 must be rejected. The SDMP Action Plan establishes 1 meter as the distance from the surface at which the measurement is taken. *See* 57 Fed. Reg. 13389, 13390. Thus, this is an impermissible attack on the Commission's regulations. *See* 10 C.F.R. § 2.758.

² NECNP also asserts that failure to implement radiation protection standard in a manner that equally protects women and children and handicapped people violates the Atomic Energy Act, the Administrative Procedures Act, the American with Disabilities Act, and the 5th Amendment to the U.S. Constitution. *Id.* at 7. This is also an impermissible challenge to the regulatory framework. *See* 62 Fed. Reg. 39058, 39067-68 (1997) (discussing how to determine member of critical group).

Basis 5. Onsite Subsurface Contamination Is Not Characterized

As Basis 5, NECNP states that YAEC must determine the full extent of subsurface contamination on the site. NECNP Contentions at 9. NECNP alleges that YAEC needs to take core samples, particularly near the Potentially Contaminated Area (PCA) and the decon pad. *Id.* at 9. In support of this basis, NECNP states that preliminary borings taken near the PCA warehouse “show concentrations of cobalt-60 (Co-60) and cesium-137 (Cs-137) increasing with depth.” *Id.* NECNP relies on a table that it attributes to an internal YAEC memo. *Id.* at App. 2. NECNP then makes two assertions. First, that the D and D computer model used in NUREG-1500 requires as input a total radioactive inventory. *Id.* at 9-10. Second, that guideline values (GLVs) used by YAEC assume no residual radioactivity below 15 cm. *Id.*

With respect to the GLVs, as stated in the LTP, GLVs are those residual radioactivity values that equate to the site release criteria for that particular pathway or measurement. LTP, Rev. 1 at A-9. YAEC has stated that these values will be used at the time of the final status survey to determine whether the site release criterion has been met. *See id.* Use of these values is not necessary for site characterization. The fact that there may be contamination at the site below 15 cm does not mean that at the time of the final site survey, after site remediation, the GLVs could not be applied. *See id.* at 4.1. As stated in the LTP, YAEC is aware of the fact that certain areas may have contamination at depths lower than 15 cm and has provided that it will perform site remediation or further investigation of those areas. LTP, Rev. 0 at 2-5. Thus, NECNP’s assertion fails to support the admission of Contention A. *See* 10 C.F.R. § 2.714(b)(2)(iii).

NECNP also asserts that the D&D computer model used in NUREG-1500 requires an input of the total radioactive inventory in order to determine the full extent of groundwater contamination.

NECNP Contentions at 9-10. Section 2 of the LTP provides YAEC's plan for site characterization. NECNP's concern is that there might be subsurface contamination below 15 cm. As discussed above, however, YAEC discusses this matter in the LTP. *See* LTP, Rev. 0 at 2-5. The LTP also discusses ground water contamination. *Id.* at 2-6. NECNP fails to show how at the time YAEC uses D and D (during the final site survey) it will not have the necessary inventory. Thus, NECNP's assertion fails to support the admission of Contention A. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Basis 6. YAEC Has Not Detected All Alpha Emitters Likely To Be Present at Yankee Rowe.

For Basis 6 NECNP states that YAEC has not detected all alpha emitters likely to be present at the site. NECNP Contentions at 10. NECNP bases its assertion on the fact that a study revealed that α -emitters, such as plutonium-241, have been detected in YNPS piping and "are, therefore likely to be present elsewhere on the site." *Id.* The report referenced by NECNP, however, only discusses the dismantling and decontamination of the YNPS reactor pressure vessel head (RPVH). The internal surface of the RPVH was found to contain plutonium-241. The RPVH, however, has already been removed from YNPS. Thus, there is no basis to conclude that other areas of the site contain plutonium-241. Nor does NECNP offer any support for its assertion that YAEC should take soil samples from over the "entire 2000-acre site" to search for alpha emitters. Thus, Basis 6 does not support the admission of Contention A. *See* 10 C.F.R. § 2.714(b)(2)(ii), (iii).

Basis 7. YAEC's Designation of Affected Versus Non-Affected Areas of the Site Is Arbitrary

In Basis 7, NECNP asserts that because YAEC has taken fewer soil samples ("as few as 30 soil samples and 10% scans") in non-affected areas of the site, these areas may in fact be contaminated above regulatory limits and YAEC would not detect this. NECNP's Contentions at 11. NECNP fails to support its assertion that the non-affected areas of the site are contaminated above regulatory limits or that the soil samples are not adequate to detect contamination above regulatory limits. YAEC's approach is consistent with NUREG/CR-5849 at 4.8.

In addition, NECNP refers to an inspection report discussing YAEC's decision to reclassify an area from unaffected to affected and then back again to unaffected as evidence that YAEC's methodology is arbitrary. NECNP Contentions at 11. The discussion in the inspection report, however, does not indicate that the decision to reclassify this area as unaffected or its survey methodology was arbitrary. Rather, the discussion indicates YAEC made a reasoned decision to reclassify the area in light of new information. NECNP does not argue that the criteria set forth in the inspection report to determine that this particular area should be classified as unaffected are wrong. Accordingly, this basis fails to demonstrate a genuine dispute on a material issue of law or fact with YAEC. Therefore, neither assertion in Basis 7 supports the admission of Contention A. 10 C.F.R. § 2.714(b)(2)(ii), (iii).

Basis 8. YAEC Has Averaged Out High Soil Concentrations of Radiation

In Basis 8, NECNP asserts that YAEC's "philosophy" is not consistent with NUREG/CR-

5849.³ NECNP refers to Inspection Report 98-03 (IR 98-03) that details YAEC's decision to average samples when a sample was found to be higher than GLVs rather than investigating the cause of the high soil concentrations. NECNP's Contentions at 12. NECNP fails to show how this inspection report supports its assertion that YAEC's site characterization is inadequate. IR 98-03 simply states that when readings exceed GLVs in unaffected areas, further investigation is necessary. The inspection report does not state that averaging samples is incorrect. In addition, IR 98-03 concludes that "[o]verall, the Yankee NPS final status survey program is consistent with the recommendations of NUREG/CR-5849 and pertinent industry standards." IR 98-03 at 5. Therefore, this basis fails to show that a dispute regarding a material issue of law or fact exists with respect to the LTP. 10 C.F.R. § 2.714(b)(2)(iii).

Basis 9. YAEC's Scan Surveys Are Consistently Biased Toward Low Readings.

In Basis 9, NECNP attempts to cast doubts on YAEC's site characterization plan by stating that the instruments used by YAEC (energy compensated Geiger Mueller [GM] detector) have readings that are lower by 10% to 20% than the instruments used by Oak Ridge (Pressurized Ionization Chamber [PIC]). NECNP Contentions at 12. The fact that these two instruments measure differently fails to demonstrate that the site characterization is inadequate. YAEC already employs a conversion factor to take into account the more sensitive readings of the PIC, although it was recommended that YAEC reevaluate this conversion factor. *See* IR 98-03 at A2-8. If NECNP read the report in its entirety, it would see that the differences between these two instruments have been included in the calculations. Thus, this assertion does not provide a basis to support the admission

³ NECNP references NUREG/CR-5949. The Staff, however, assumes NECNP intended to reference NUREG/CR-5849. *See* NECNP Contentions at 4.

of Contention A. *See* 10 C.F.R. § 2.714(b)(2)(ii), (iii).

Basis 10.YAEC Has Not Evaluated Scanning Sensitivity for Field Survey Instruments

In Basis 10, NECNP asserts that pursuant to “NUREG/CR-5849, the minimum detectable concentration for survey instruments should be determined.” NECNP Contentions at 12, referencing IR 98-03. IR 98-03 does not refer to NUREG/CR-5849 but instead recommends that YAEC determine specific minimum detectable values or use the nominal values provided in NUREG-1507. IR 98-03 at A2-4. YAEC has, in fact, already committed to using the values of NUREG-1507 in the LTP. LTP, Rev. 1 at A-34. This basis, therefore, fails to support admission of Contention A. 10 C.F.R. § 2.714(b)(2)(ii),(iii).

As demonstrated above in response to Contention A and its associated bases, NECNP fails to demonstrate that it has satisfied the criteria of section 2.714(b) for admissibility of contentions. Accordingly, Contention A must be dismissed.

Contention B. YAEC's LTP Contains Unreviewed Safety Questions

Contrary to the requirements of 10 CFR 50.59 and 50.82, YAEC has not carried out safety evaluations for unreviewed safety questions involved in the remaining dismantlement activities.

NECNP Contentions at 13. In support of this contention NECNP asserts that, pursuant to 10 C.F.R. § 50.82(a)(9)(ii), YAEC must identify remaining dismantlement activities, which include removal of spent fuel and GTCC waste from the spent fuel pool, and dismantlement of the spent fuel pool and its supporting systems. *Id.* Further, NECNP maintains that, with regard to these particular issues, YAEC must consider the following four unreviewed safety questions: (1) Heavy objects falling into the spent fuel pool; (2) A tornado strike damaging the spent fuel pool; (3) Sabotage of the spent fuel pool; and (4) Down-sizing of qualified nuclear personnel. *Id.* at 14. None of NECNP's

assertions support the admission of this contention.

The concerns expressed by NECNP are outside the scope of this proceeding. Each of the alleged unreviewed safety questions NECNP asserts YAEC must address relate to spent fuel management. The Commission in its ruling on standing in this matter explicitly held that issues regarding spent fuel were not relevant to the LTP: “Nothing in our rules brings spent fuel management within the ambit of the LTP approval process.” *Yankee Atomic*, CLI-98-21 at 15. As the Commission noted, the scope of the LTP application as set forth in 10 C.F.R. § 50.82(a)(9)(ii)(A)-(G) does not include spent fuel management. *Id.* at 16. This contention disregards the Commission’s decision that specifically rejected NECNP’s assertion that spent fuel management is an issue for an LTP proceeding. Accordingly, it should not be admitted as it is outside the scope of this proceeding.

NECNP attempts to anticipate this Board’s rejection of spent fuel issues pursuant to the Commission’s ruling by requesting that the issue be certified to the Commission “for a complete clarification of the status of such issues.” NECNP Contentions at 17. Clarification by the Commission is unnecessary, however, as the Commission was quite clear that these issues were not germane to the LTP. *See Yankee Atomic*, CLI-98-21 at 27. Since the Commission has already answered NECNP’s questions regarding the status of spent fuel management in this proceeding, certification of this question to the Commission is not necessary.

Contention C. YAEC’s Site Remediation Plans Are Inadequate.

Contrary to the requirement of 10 CFR 50.82(a)(9)(ii), YAEC’s site remediation plans are based upon inadequate data and will not protect public health and safety.

NECNP Contentions at 19. As a basis for this contention, NECNP states that YAEC only plans to

conduct soil sampling to a depth of 15 cm. *Id.* Thus, NECNP contends, YAEC leaves open the possibility that areas of the site below 15 cm may be contaminated. This is essentially the same argument NECNP presents in Contention A, Basis 5. For the reasons set forth in the Staff's response to Contention A, Basis 5, this basis fails to support the admission of Contention C. Contention C must, therefore, be dismissed. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Contention D. Inadequacy of YAEC's Plans for Final Site Survey.

Under this heading, NECNP raises two contentions.

Contention D1

Contrary to the requirements of 10 CFR 50.82(a)(9)(ii) and 50.82(a)(3), YAEC cannot specify when irradiated fuel [IF], all structures, and contamination will be removed from the site, and when a final site survey will be conducted. Until these details are finalized, the NRC cannot approve the LTP or the Final Site Survey Plan.

NECNP Contentions at 21. In support of this contention NECNP states that the LTP cannot be approved because YAEC will not be able to complete decommissioning within 60 years of cessation of operations at the site as required by 10 C.F.R. § 50.82(a)(3). *Id.* at 21-23. Specifically, NECNP states that YAEC cannot assure completion within 60 years because a high-level waste repository may not be available. *Id.* at 22-23. There is no merit to NECNP's arguments. The date that decommissioning will be completed is not relevant to the LTP as there is no requirement to include a completion date in the LTP pursuant to section 50.82(a)(9)(ii)(A)-(G). In addition, NECNP does not accurately characterize 10 C.F.R. § 50.82(a)(3). Section 50.82(a)(3) does not absolutely require decommissioning to be completed within 60 years of permanent cessation of operations. Specifically, the rule allows the completion of decommissioning beyond 60 years, if approved by the Commission. 10 C.F.R. § 50.82(a)(3). Accordingly, this contention should be dismissed as it

is outside the scope of this proceeding.

Contention D2

Contrary to the requirements of 10 C.F.R. 50.82(a)(3) and (a)(9)(ii), YAEC has not specified the type of IF storage casks it proposes to use, whether these casks have been licensed, and how the IF will be moved from these storage casks to the proposed high-level waste repository. Until YAEC finalizes these details, the NRC cannot approve the plan.

NECNP Contentions at 21. Again, the focus for this contention is on the issue of spent fuel management. As stated in response to Contention B, above, pursuant to the Commission's order, the issue of spent fuel management is outside the scope of this proceeding. *Yankee Atomic*, CLI-98-21 at 20. Likewise, the issue of transportation of spent fuel is outside the scope of this proceeding as it is not required to be part of the LTP. *See id.* at 28; *see also* 10 C.F.R. § 50.82(a)(9)(ii). Therefore, the admission of this contention should be denied as it is outside the scope of this proceeding.

Contention E. Inadequacy of YAEC's Site Remediation Plans.

Contrary to NRC requirements, YAEC has not shown that the LTP is adequate and will protect the health and safety of the public in that: (1) the Guideline Values are not protective of full-time residents or children, and (2) the soil concentration release criteria are not supported by YAEC's analysis and are, in any case, too high. 10 CFR §50.82(a)(9)(ii) and (a)(10).

NECNP Contentions at 23-24. NECNP offers two bases in support of Contention E, neither of which supports its admission.

Basis 1. YAEC's LTP Is Designed Only to Maintain Doses to an Adult Male Below 15mrem Per Year; Doses to Children Will Likely Be Higher

As its Basis 1, NECNP states that YAEC's LTP is designed to maintain the dose to adult males below 15 mrem/yr but that doses to children will be higher. NECNP Contentions at 24. In

its discussion of Basis 1, NECNP states that it is not challenging the regulations in Part 20 but the way NRC applies them. Despite its assertion, however, NECNP is, in fact, challenging the Commission's regulations. As discussed in the Staff's response to Contention A, Basis 3, such challenges are impermissible pursuant to 10 C.F.R. § 2.758. Also, as discussed in the Staff's response to Contention A, Basis 3, YAEC is not required to consider doses to children, nor has NECNP shown that even if doses to children were considered, such doses would exceed the site release criterion.

NECNP also challenges the Staff's use of dose conversion factors from ICRP-30 in its regulations. NECNP Contentions at 25. According to NECNP, the Staff should have used the new dose conversion factors from ICRP-60, which considers an individual's age. *Id.* As discussed above, the Commission's regulations do not require YAEC to consider doses to children. Thus, NECNP's Basis 1 does not support the admission of Contention E. *See* 10 C.F.R. § 2.714(b)(2)(ii), (iii).

Basis 2. YAEC's Guideline Values Are Not Supported And, In Any Case, Are Too High

NECNP's Basis 2 for Contention E is that YAEC's GLVs are unsupported and too high. NECNP Contentions at 26-27. NECNP acknowledges that YAEC uses the GLVs of Table B-2 of NUREG-1500. *Id.* NECNP asserts, however, that the GLV for silver-108m (Ag-108m) is not contained in Table B-2 of NUREG-1500 and the computer code RESRAD does not consider Ag-108m. *Id.* Thus, NECNP concludes, there is no basis for the GLV for Ag-108m. *Id.* The LTP, however, does contain a basis for the GLV adopted for Ag-108m. The LTP provides that if a radionuclide was present onsite and not listed in Table B-2, GLVs were determined by using the

RESRAD computer code. LTP, Rev. 0 at 2-3. Table 2-3 provides that the value for Ag-108m was derived from RESRAD data for the site. *See* LTP, Rev 0, Table 2-3, note 2. NECNP fails to explain why YAEC could not have used the RESRAD code in order to derive the GLV for Ag-108m. Further, NECNP fails to explain how the use of the GLV for Ag-108m will result in YAEC's exceeding the applicable site release criterion. Thus, NECNP fails to show that a genuine dispute exists with YAEC on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2)(iii). This basis, therefore, does not support the admission of Contention E.

NECNP states that each radionuclide standing alone would provide a TEDE of 15 mrem/yr. NECNP Contentions at 27. NECNP asserts that "with a mix of radionuclides one has to take the sum of the ratios, which must be less than one." *Id.* Although NECNP does not state what part of the LTP it is challenging, the combining of radionuclides for the purposes of determining the guideline value is addressed in the LTP at Table 2-1, note 5. Note 5 provides that: "When multiple radionuclides are present the guideline value (GLV) for the distribution is considered to be exceeded when the sum of the ratios of the individual radionuclide distributions to their respective GLVs is greater than 1." Thus, note 5 demonstrates that YAEC is calculating GLVs consistent with NECNP's assertion. This basis, therefore, does not show that a genuine dispute exists with YAEC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). This basis does not support the admission of Contention E; thus, it should not be admitted.

Contention F. Inadequacy and Insufficiency of YAEC's LTP ALARA Analysis

Contrary to NRC regulations, the YAEC LTP does not show that the "residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA)." 10 C.F.R. § 20.1402.

NECNP Contentions at 27. As a basis for this contention, NECNP claims that YAEC's ALARA

analysis is “entirely *ad hoc* and flawed” and that YAEC has not established an ALARA protocol or methodology for decommissioning and site clean-up. *Id.* at 28, 29. NECNP further alleges that YAEC’s cost estimates for remediation are inflated and YAEC’s calculations of the savings in terms of the reduced health effects are deflated. *Id.*

None of these assertions support the admission of Contention F. NECNP’s first assertion, that YAEC’s ALARA analysis is “*ad hoc*” and flawed and that YAEC has not established an ALARA protocol or methodology, is unsupported. NECNP fails to explain, with specific references to the LTP, in what way YAEC’s ALARA analysis is “*ad hoc*” or flawed. Nor does NECNP provide any discussion on how YAEC’s ALARA analysis is lacking in protocol or methodology. According to the LTP, YAEC’s ALARA analysis follows the general approach of NUREG-1500, which provides guidance on ALARA methodology. LTP, Rev. 0, at 4-5. NECNP offers nothing to support its view that YAEC’s use of NUREG-1500 as guidance is insufficient.

NECNP next argues that, in performing a cost-benefit analysis, YAEC inflates the cost of soil removal and deflates the benefits, in terms of reduced health effects, in order to conclude that further remediation would not be cost effective. NECNP Contentions at 28. As with its first argument, NECNP provides no support for its assertions regarding YAEC’s cost-benefit analysis. With respect to its claim that YAEC inflated the cost of soil removal, NECNP asserts that YAEC should have based its cost calculations on the Envirocare facility in Utah instead of the Barnwell facility. *Id.* If YAEC had used Envirocare, according to NECNP, the cost of disposal would be decreased by “a factor of 30.” *Id.* NECNP, however, provides no support for its assertion that using Envirocare would decrease YAEC’s costs by a “factor of 30.” Nor does NECNP support its assertion that YAEC’s use of Barnwell is not reasonable.

NECNP also fails to support its assertion that YAEC deflated the benefits of further remediation. First NECNP claims, in support of its assertion, that YAEC should have taken 10 half-

lives as the time for radioactivity to be reduced to *de minimis* levels, rather than using a single half-life of 26 years. *Id.* at 29. As an initial matter, NECNP's assertion is premised on a misunderstanding of YAEC's analysis. YAEC did not use a single half-life for its calculations, but rather a mean life. As set forth in the LTP, the mean life of a contaminant represents the period of exposure at the initial dose rate that will account for all potential exposure until the radioactivity has been eliminated by decay. LTP, Rev. 0 at 4-7. NECNP does not explain why YAEC's use of a mean life in its calculations causes YAEC's calculations to be flawed or why, if YAEC had used "10 half-lives," YAEC's ALARA conclusions would be different.

NECNP's other claims in support of its assertion that YAEC has deflated the benefits of remediation lower than 15 mrem/yr are similarly unsupported and based on a misunderstanding of the LTP. NECNP claims that YAEC did not account for all of the radionuclides that may be present at YNPS and that YAEC should also have considered Silver-108m, Cesium-134, and alpha emitters. NECNP Contentions at 29. As explained in the LTP, however, Co-60 comprises approximately 75% of the dose at YNPS and has a mean life of only 8 years. LTP, Rev. 0 at 4-7. YAEC conservatively calculated the mean life for its ALARA analysis assuming that Co-60 comprised only 50% of the dose at YNPS and 50% from Cs-137, a longer lived radionuclide. *Id.* Finally, NECNP claims that YAEC only assumes ½ person would be affected by soil remediation, when YAEC should have considered an entire family group. *Id.* NECNP's assertion is based, again, on a misunderstanding of the LTP. As explained in the LTP, YAEC assumed a population density of 20 persons per acre at the YNPS site, after decommissioning. LTP, Rev. 0 at 4-7. YAEC, however, used a reference area of 100 m² of soil. Thus, for the purposes of calculating the benefit of remediating the soil below 15 mrem/yr, YAEC converted acres to 100 m², arriving at the number of .5 person per 100 m². *Id.* NECNP's assertion in this regard is erroneous.

In sum, as discussed above, Contention F is not supported by an adequate basis. None of

NECNP's assertions in its basis provide sufficient information to show that a genuine dispute exists with YAEC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). Since NECNP fails to provide an adequate basis for Contention F, it should be dismissed. 10 C.F.R. § 2.714(b)(2).

Contention G. Inadequacy of YAEC's Remaining Decommissioning Cost Estimate

Contrary to NRC regulations, YAEC's LTP underestimates the full cost of irradiated fuel [IF] management and license termination, resulting in an inadequate estimation of remaining decommissioning costs as required under 10 CFR 50.82(a)(9)(ii).

NECNP Contentions at 29. With respect to contentions regarding a decommissioning cost estimate, the Commission has held that a contention asserting that a decommissioning cost estimate is inaccurate or incomplete is not litigable if the only relief would be a "formalistic redraft of the plan with a new estimate." *Yankee Atomic Elec. Co.*, (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 259 (1996) citing *Yankee Atomic Elec. Co.*, (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 9 (1996). Thus, a petitioner would not only need to demonstrate that the cost estimate was incorrect, but also that there was no reasonable assurance that the decommissioning costs would be paid. *Id.* Here, NECNP does not even allege that YAEC would be unable to pay the decommissioning costs. Thus, Contention G should be dismissed.

Specifically, NECNP contends that YAEC's decommissioning cost estimates are underestimated because YAEC has underestimated the time it would be necessary to manage the spent fuel on the YNPS site. *Id.* at 30. Thus, claims NECNP, YAEC's estimate of the remaining decommissioning costs, required by 10 C.F.R. § 50.82(a)(9)(ii), is inaccurate. *Id.* at 29-30. Next, NECNP argues that YAEC has not estimated the full extent of subsurface contamination on the YNPS site. *Id.* at 30. Without this information, NECNP contends, YAEC cannot determine the full cost of decommissioning. *Id.* at 31. Since neither of NECNP's arguments challenges YAEC's

ability to pay the decommissioning costs, Contention G should be dismissed. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Contention H: Inadequacy of YAEC's Final Status Survey Plan

Under existing NRC regulations, YAEC's plans for the final status survey are inadequate and will not protect the health and safety of the public. 10 CFR 50.82(a)(9)(ii) and (a)(10).

NECNP Contentions at 31. NECNP offers several bases in support of Contention H. As set forth below, none of these bases support the admission of Contention H.

Basis 1. Onsite Subsurface Contamination Not Surveyed

For Basis 1, NECNP asserts that YAEC will not survey for the full extent for onsite subsurface contamination under the proposed final status survey plan (FSSP). NECNP Contentions at 32. In support of its assertion, NECNP refers, again, to the fact that contamination below 15 cm was found by YAEC. *Id.* at 32-33. This basis contains the same arguments as Contention A, Basis 5. For the reasons discussed in the Staff's response to Contention A, Basis 5, this basis lacks sufficient support. *See* 10 C.F.R. § 2.714(b)(2)(ii),(iii). It, therefore, does not support the admission of Contention H. *See* 10 C.F.R. § 2.714(b)(2).

Basis 2. YAEC Must Survey All α Emitters Likely to Be Present at the Yankee Rowe Site.

As regards Basis 2, NECNP says that YAEC does not plan to survey for α -emitters. NECNP Contentions at 33. NECNP raises this argument in Contention A, Basis 6. For the reasons set forth in the Staff's response to Contention A, Basis 6, this basis does not support the admission of Contention H.

Basis 3. YAEC's FSSP Method for Determining Guideline Values is Vague.

Basis 3 is that YAEC's FSSP method for determining guideline values is vague. NECNP

Contentions at 34. The method that NECNP finds vague is discussed in the LTP, Rev. 1 at A-10. Specifically, NECNP references YAEC's statement that for affected survey areas, GLVs may be re-evaluated and altered if new radionuclide distribution data is obtained. *Id.* According to NECNP, since YAEC does not define "more appropriate use" or detail exactly how the GLV's will be "re-evaluated and altered," YAEC will make *ad hoc* decisions based on economics rather than health and safety. *Id.* The statement NECNP challenges, however, applies only to the determination of GLVs for surface contamination in affected areas. *See* LTP, Rev. 1 at A-9-10. The LTP also discusses the determination of GLVs for soil, sediment and bulk material activity. LTP at A-11. Furthermore, YAEC's statement must be read in context. Section 3.4.1, Surface Contamination Guideline Values, explains YAEC's method for determining GLVs, including its formula for obtaining the GLVs. *Id.* at A-9. For affected areas, YAEC stated it will determine GLVs based on previously determined radionuclide distribution. *Id.* at A-10. If, however, in the course of the completion of decommissioning, new radionuclide distribution data is obtained, if appropriate, YAEC will adjust the GLVs to reflect the new information. *See id.* This adjustment would need to be done using the methodology described in the LTP. Thus, Basis 3 fails to show that a genuine dispute exists with YAEC on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Basis 4. YAEC's FSSP Permits Radiation Exposure to Exceed 15 mr/y.

NECNP's Basis 4 is that direct gamma doses of 5 μ R/h will result in radiation exposure greater than 15 mrem/yr. NECNP Contentions at 35. This argument is the same as the one advanced by NECNP in Contention A, Basis 3. For the reasons set forth in the Staff's response to Contention A, Basis 3, Basis 4 does not support the admission of Contention H.

Basis 5. YAEC's ALARA Analysis in the FSSP Is Completely *Ad Hoc* and Vague

In the fifth basis in support of Contention H, NECNP contends that YAEC's ALARA analysis in its FSSP contained in the LTP is "Vague, inadequate, and essentially, non-existent." NECNP Contentions at 35-36. In making this assertion, however, NECNP has misread the statement in the FSSP regarding ALARA. NECNP correctly quotes from the FSSP; however, NECNP omits YAEC's reference to section 4.4 of the LTP for more details of YAEC's ALARA analysis. *See* LTP at A-46. As already discussed under Contention F, YAEC's ALARA analysis is consistent with NUREG-1500. Nothing in NECNP's argument either under Contention H or under Contention F shows that YAEC's ALARA analysis is insufficient or that a dose rate of 15 mrem/yr is not ALARA. Thus, this basis fails to demonstrate that a genuine dispute exists with YAEC on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Additional Bases

NECNP provides two additional bases related to NRC inspection reports. Additional Basis 1 states that YAEC halted the removal of contaminated piping from under the primary auxiliary building because of the high water table, citing NRC IR 98-03 at 2. NECNP Contentions at 36. NECNP states that the "clear inference of this revelation is that the below building contaminated piping is sitting within the water table (and allowing contamination to seep into the water table?)." *Id.* Nothing in the inspection report characterizes that this particular piping as contaminated. Thus, the NRC report does not provide a basis for NECNP's speculation regarding contamination of the water table. Accordingly, this basis fails to demonstrate that a genuine dispute exists with YAEC on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2)(iii).

Under Additional Basis 2, NECNP, referencing NRC IR 98-03, notes that YAEC prepared a study of background soil at offsite locations to obtain background readings for Cs-137. *Id.*

NECNP notes that YAEC stated that for affected areas, it will assume a background radiation level of zero for Cs-137. *Id.* at 36-37. NECNP agrees with YAEC's assumption, but argues that it should be memorialized in the FSSP. *Id.* There is no requirement that YAEC assume a background radiation level of zero for Cs-137. The statement in the Inspection Report simply notes that YAEC will make this assumption. NECNP fails to provide any explanation of why this assumption should be memorialized in the LTP. Thus, this basis fails to demonstrate that a genuine dispute exists with YAEC on a material issue of law or fact. *See* 10 C.F.R. § 2.714(b)(2)(iii).

3. CAN's Contentions

As a general matter, CAN's filing fails to conform to the requirement that each contention consists of a specific statement of the issue of law or fact to be raised or controverted.⁴ 10 C.F.R. § 2.714(b)(2). Rather, CAN's filing consists of several headings, such as "Site release" or "Soil remediation." *See* CAN Contentions at 2, 7, 15, 17, 19, 20, 21, 23. Moreover, CAN labels these headings as "subject matter aspects" and not contentions. *Id.* at 2. Nevertheless, to the extent that proposed contentions could be discerned from CAN's filing, the Staff's responses to them are set forth below.⁵ As demonstrated below, none of these contentions satisfy the requirements for

⁴ CAN also attaches an affidavit from Dr. Resnikoff. For the reasons stated in the Staff's response to NECNP's contentions, this affidavit does not meet the requirement that contentions be supported by a concise statement of the alleged facts or expert opinion which support the contention. *See* 10 C.F.R. § 2.714(b)(2)(ii).

⁵ It should be noted that in its recent Policy Statement on Conduct of Adjudicatory Proceedings, the Commission emphasized that a contention's proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirements. *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC at 22.

contentions.⁶ CAN's Petition for leave to intervene should, therefore, be denied.

1. Site Release

Under this heading, CAN states that "the LTP as submitted violates 10 C.F.R. § 20.1101 in that it fails to maintain occupational and public radiation doses as low as reasonably achievable (ALARA) and is inadequate to protect the health and safety of our community." CAN Contentions at 2. Having stated a concern that the dose be ALARA, CAN proceeds in its first paragraph to express its dislike for the way YAEC (and the NRC) determine whether the applicable mr/y dose to the average member of the critical group is met. *Id.* CAN's assertion here is essentially the same as NECNP's Contention A, Basis 3. As discussed in the Staff's response to NECNP's contention, CAN's assertion here is an impermissible challenge to the Commission's regulations. Thus, there is nothing under this heading that satisfies the Commission's regulations for an admissible contention.

2. Soil Remediation

Under this heading, CAN asserts that "[u]nder 4.4.3 in Soil Remediation, YAEC attempts to justify the removal of less soil based on the benefit gained in the equation of cost versus ALARA considerations to meet the 15 mrem/yr. requirement." CAN Contentions at 7. Although not clearly

⁶ CAN also states that it "signs on to NECNP's Contentions and attaches and includes them as ours." CAN Contentions at 1. The Staff has no objection to CAN's adoption of NECNP's contentions provided that CAN has set forth at least one admissible contention of its own pursuant to 10 C.F.R. § 2.714. If any of NECNP's contentions are admitted and CAN is allowed to adopt it, the Staff requests that the Board appoint NECNP, as the original proponent of the contention, the "lead intervenor," with the primary responsibility for marshaling all the intervenors' case relative to that contention. *See Private Fuel Storage*, LBP-98-7, 47 NRC at 182. Separate filings should not be permitted.

articulated, it appears that CAN is raising a contention regarding the adequacy of YAEC's ALARA analysis in the LTP. CAN misunderstands YAEC's statements regarding its ALARA analysis. As stated in the LTP, YAEC compared the cost of soil remediation below the site release criterion of 15 mrem/yr to the benefits, in the form of lower doses, of further remediation. *See* LTP, Rev. 0 at 4-6 to 4-7. Based on that analysis, YAEC determined that such further remediation was not required by ALARA. *See id.* at 4-7. This conclusion is based, not on the benefit gained by further remediation, but rather on the cost of further remediation compared to the benefit derived. *See id.* at 4-6 to 4-7. Thus, YAEC did not somehow compare the benefits gained in the equation of cost versus ALARA considerations, as CAN contends. Nor did YAEC use this analysis to avoid remediating the soil to the site release criterion of 15 mrem/yr. YAEC's ALARA analysis does not change these requirements. Thus, this concern does not demonstrate that a genuine dispute fact exists with YAEC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii).

In support of its assertion, CAN makes several additional claims. CAN first argues that YAEC's equation for determining the total collective dose rate in order to determine the benefit of remediation below the site release criteria is inadequate. CAN Contentions at 7. CAN asserts that YAEC's equation incorrectly assumes that the contamination on the YNPS site is homogeneous and fails to account for all of the contamination. *Id.* It appears that CAN is challenging YAEC's assumption that the initial dose rate will be 15 mrem/yr. CAN's challenge, however, is based on a misunderstanding of YAEC's ALARA analysis. The purpose of the ALARA analysis is to determine whether the 15 mrem/yr site release criterion is adequate to ensure that residual levels of radioactivity at YNPS will be as low as reasonably achievable (ALARA). *See* LTP Rev. 0 at 4-4. According to YAEC, its analysis shows that in areas with dose levels already lower than 15 mrem/yr

the benefits of further remediation are not proportionate to the associated costs. *Id.* For the purposes of its analysis, YAEAC assumed a dose rate of 15 mrem/yr; how that rate is measured is not relevant for this calculation. Thus, CAN's assertion does not demonstrate that a genuine dispute exists with YAEAC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii).

Next CAN argues that YAEAC impermissibly averaged the "half-lives" of the radionuclides on the site and limits the number of radionuclides calculated to limit the clean up of the site. *See* CAN Contentions at 7-8. As discussed in the Staff's response to NECNP Contention F, YAEAC did not consider half-lives, but rather mean lives. CAN, like NECNP, confuses these terms. Further, although CAN argues averaging "half-lives" is "unscientific," CAN does not provide any explanation for its assertion.

CAN also offers no support for its claim that YAEAC should have considered other radionuclides present at YNPS, such as plutonium. In the LTP, YAEAC states that Co-60 is responsible for 75% of the contamination at YNPS. LTP Rev. 0 at 4-7. Nothing in CAN's filing refutes this number. For the purposes of its ALARA calculation, however, YAEAC assumed that Co-60 only comprised 50% of the contamination and that the longer-lived radionuclide Cs-137 comprised another 50%. *Id.* Nothing in CAN's filing shows that, even if YAEAC had considered other radionuclides at YNPS, YAEAC's use of a mean life of 26 years would not have bounded the actual radionuclide distribution at YNPS. CAN, therefore, fails to show that a genuine dispute exists with YAEAC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii).

CAN next argues that YAEAC, in its ALARA analysis, has justified less remediation of the site since further remediation would not be proportionate to its costs. CAN's Contentions at 9. CAN asserts that YAEAC's argument is incorrect because contamination may be greater below the

surface due to migration and accumulation down to groundwater levels. *Id.* CAN also states that since test wells indicated that contamination increased with depth, further testing is warranted to develop a more accurate picture of onsite and offsite contamination. *Id.* at 11. Both of these assertions fail to support CAN's assertion that YAEC's ALARA analysis is faulty. Although CAN does not provide how far below the surface it believes the contamination migrated, YAEC states in the LTP that it assumed a surface area of 100m² with radioactive contamination to a depth of 15 cm. LTP Rev. 0 at 4-6. Even if it were true that surface contamination migrated more than 15 cm below the surface, CAN fails to explain how this factor would indicate that the benefits outweigh the cost of remediation. CAN, therefore, fails to show that a genuine dispute exists with YAEC on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii).

CAN also makes assertions regarding the contamination of the Deerfield River. CAN Contentions at 9-10. According to CAN, YAEC claims that it would be more dangerous to dredge the river to remove the contamination than to leave the contamination in the silt. *Id.* at 9. CAN does not provide a reference to where in the LTP the dredging of the Deerfield River is discussed. Furthermore, CAN's assertion that if it is too dangerous to dredge the Deerfield River, then the contamination in the river poses some threat to the public is not supported by any facts or expert opinion. Thus, CAN fails to meet the requirements of 10 C.F.R. § 2.714(b)(2)(ii) and (iii).

CAN also asserts, with respect to the Deerfield River, that YAEC should be "required to retain liability for the contamination it leaves behind." *Id.* at 9-10. CAN, further, provides that it has concerns that the hydroelectric dam that uses the Deerfield River could cause other pathways for exposure. *Id.* at 10. Both of CAN's assertions are unsupported by any references to fact or expert opinion. Thus, they fail to meet the requirements of 10 C.F.R. § 2.714(b)(2)(ii). Further, CAN's

request that YAEC be held liable for any contamination it leaves behind is beyond the scope of this proceeding and exceeds the authority of the Commission to grant. *Yankee Atomic*, CLI-96-7, 43 NRC at 269 (“Although the Commission has a general responsibility to ensure that decommissioning operations do not jeopardize public health and safety, no statute or regulation grants the Commission authority to require the Licensee to pay (in effect) compensatory damages to private individuals.”).

CAN next claims that an independent analysis is necessary to ascertain the extent of contamination of the Deerfield River and onsite. CAN Contentions at 10. It appears that CAN does not believe that YAEC will perform an appropriate analysis which will result in YAEC leaving behind more contaminated soil than would be allowed under NRC guidelines. *Id.* at 10-11. This conclusion is based on CAN’s belief that YAEC inappropriately averaged soil readings. *Id.* This same issue was raised by NECNP in its filings. As discussed in the Staff’s response to NECNP Contention A, Basis 8, YAEC’s averaging was not inappropriate. CAN has no further basis to contend that an independent analysis is necessary. Thus, this basis fails to meet the requirement of 10 C.F.R § 2.714(b)(2)(ii), (iii).

CAN also makes several other assertions, none of which appear to be related to its ALARA concerns. CAN first raises the issue of the release of “hot particles” during the Component Removal Project.⁷ CAN Contentions at 11. CAN asserts, without any support, that an independent review should be undertaken to ascertain the extent of hot particle contamination onsite and in the surrounding property. *Id.* CAN fails, however, to provide sufficient information to show that

⁷ For details regarding YAEC’s Component Removal Project (CRP), see background discussion in *Yankee Atomic*, CLI-96-7, 43 NRC at 241-242.

YAEC's alleged failure to consider these "hot particles" would result in soil contamination at levels higher than what YAEC provides in the LTP, or even that these "hot particles" are present on the site. Thus, this assertion does not meet the requirements of 10 C.F.R. § 2.714(b)(2)(ii), (iii).

CAN next argues that independent testing must be done to establish an accurate baseline figure for background radiation. CAN Contentions at 11. CAN provides no expert opinion or support for its assertion that YAEC's background radiation levels are inaccurate. Nor does CAN explain its assertion that YAEC adjusted its background radiation levels to justify limited soil remediation. *See id.* at 11-12. Further, as discussed in the Staff's response to NECNP Contention A, Basis 1, background radiation measurements can be taken from locations onsite. Thus, this assertion does not meet the requirements of 10 C.F.R. § 2.714(b)(2)(iii).

Next CAN notes, referencing NRC Inspection Report 50-29/98-03, that YAEC will apply a zero background level for Cs-137 for disturbed soil areas. CAN Contentions at 12, *citing* NRC Inspection Report 50-29/98-03 at A2-4. CAN's assertion is the same as NECNP's Contention H, Additional Basis 2. For the reasons discussed in the Staff's response to NECNP's contentions, there is no reason to incorporate the statements in the inspection report into the LTP.

Next CAN asserts that the site remediation process at YNPS is "an untried experiment." CAN Contentions at 12. CAN goes on to quote extensively from a *Federal Register* notice. *Id.* at 12-14. The Staff assumes that CAN is referring to the Commission's statements in *Supplemental Information on the Implementation of the Final Rule on Radiological Criteria for License Termination*, 63 Fed. Reg. 64132. The statements in this *Federal Register* notice do not refer to the decommissioning of YNPS as an "untried experiment." Further, whether or not the site remediation process at YNPS is an experiment, is not relevant to the issue of whether the LTP should be

approved. CAN, therefore, fails to demonstrate that a genuine dispute exists with YAEC on a material issue of law or fact.⁸ 10 C.F.R. § 2.714(b)(2)(iii).

CAN also argues that certain concerns identified in an NRC inspection report must be incorporated into the LTP. CAN Contentions at 14-15. CAN fails to support its assertion. The concerns articulated in the inspection reports involve the implementation of the methodology provided in the LTP, but do not necessarily show any inadequacies with it. CAN must provide some basis to support its conclusions that the LTP itself is inadequate. Mere reference to statements in an inspection report is insufficient. *See Calvert Cliffs*, CLI-98-25, 48 NRC ___, slip op. at 19.⁹ Accordingly, this basis does not meet the requirements of 10 C.F.R. § 2.714(b)(2).

In sum, as set forth above, none of the arguments CAN offers under this heading meet the requirements of 10 C.F.R. § 2.714(b) for an admissible contention.

3. NRC Oversight and Abdication of Authority

CAN argues that “[t]he proposed site release plan for YNPS does not adequately describe

⁸ The Staff has overseen the decommissioning of the Fort St. Vrain, Shoreham, and Rancho Seco facilities. *See Decommissioning of Nuclear Power Reactors*, 61 Fed. Reg. at 39281. Furthermore, the fact that information obtained from the decommissioning on YNPS may be the basis for changes in NRC requirements does not indicate that the LTP should not be approved.

⁹ In *Calvert Cliffs*, the Commission held that mere reference to the Staff’s Request for Additional Information (RAIs) was insufficient to meet the requirements of 10 C.F.R. § 2.714(b)(ii)-(iii). *Calvert Cliffs*, CLI-98-25, 48 NRC ___, slip op. at 19. Similarly, here, CAN’s mere reference to statements in the Staff’s Inspection Report do not, without further analysis, indicate that the LTP should not be approved. *See also Sacramento Mun. Util. Dist.* (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 146 (1993).

YAEC's planned decommissioning activities or its controls and limits on procedures and equipment, in violation of 10 C.F.R. § 50.82(b).” CAN Contentions at 15. In support of this contention, CAN states that issues regarding the storage and ultimate disposal of spent fuel must be addressed in the LTP. CAN further asserts that NRC staff and YAEC have violated the National Environmental Policy Act by not preparing a supplemental Environmental Impact Statement (EIS) for storage of spent fuel under Part 72. Each of these assertions is without merit. As stated previously in response to NECNP's Contentions B and D, the Commission has held that issues regarding the storage and management of spent fuel are not within the scope of this proceeding. *See Staff's Response to NECNP Contentions B and D, above.* In addition, YAEC has not applied for a Part 72 license at this time and, accordingly, there is no requirement for an EIS to be prepared. As noted by the Commission, YAEC has authority by virtue of its existing Part 50 license to operate an ISFSI. *Yankee Atomic*, CLI- 98-21 at 27. CAN's concerns are outside the scope of this proceeding and therefore, are not admissible.

4. Security

It is not readily apparent what contention CAN is raising as it has not set forth any statement that even resembles the requirements of 10 C.F.R. § 2.714(b)(2). To the extent that CAN has a contention at all, it appears to relate only to spent fuel management and handling. CAN asserts that the LTP does not describe how YAEC will protect an ISFSI from public access or terrorist attack. CAN Contentions at 18. CAN again raises the issue about the transfer of GTCC from the fuel pool to dry cask storage. As stated above in response to CAN Contention 3, issues regarding management and handling of spent fuel are outside the scope of this proceeding and, therefore, are not admissible.

5. Monetary Security

CAN contends that a cost sensitivity analysis is required. CAN Contentions at 19. CAN avers that decommissioning cost estimates must include estimates of costs for operation of a Part 72 license to create an ISFSI as well as a comparison of cost estimates between leaving the fuel in the fuel pool and the cost of removal of fuel from the pool to dry cask storage. *Id.* In addition, CAN maintains that the cost estimate must include the cost for site remediation and for any delays that might occur by DOE. As stated above in response to CAN Contention 3, issues regarding management and handling of spent fuel are outside the scope of this proceeding. Thus, none of the concerns expressed under this heading meet the requirements of 10 C.F.R. § 2.714(b) for an admissible contention. CAN's assertion that YAEC's cost estimates are inadequate because they do not include \$35 million for site remediation is also of no consequence as discussed in the Staff's response to NECNP Contention G. Thus, none of the concerns expressed under this heading meet the requirements of 10 C.F.R. § 2.714(b) for an admissible contention.

6. Waste Issues

CAN next asserts that "[t]he NRC staff violated the National Environmental Policy Act by failing to prepare a supplemental Environmental Impact Statement for the clean up of the site." CAN Contentions at 20. CAN states that the existence of documented and undocumented contamination as well as "the controversial and experimental nature of the project and the fact that this is the first decommissioning under the new regulations" require the preparation of an EIS. *Id.* at 21. These assertions are groundless. The Commission's regulations clearly set forth when an EIS must be prepared and none of the reasons set forth by CAN meet these requirements. *See* 10 C.F.R. §51.20. Under section 51.20(a), an EIS is required for a regulatory action that is either a major

federal action significantly affecting the quality of the human environment or that involves a matter that the Commission, in its discretion, has determined requires an EIS. Further, in section 51.20(b), the Commission lists 14 different types of actions requiring an EIS. The approval of an LTP is not one of those 14 types that are listed. In addition, CAN has not demonstrated anything peculiar with regard to YNPS that would require an EIS. Therefore, this assertion does not meet the requirements of 10 C.F.R. § 2.714(b)(2) for an admissible contention.

7. Investigation of Illegal Handling of Rad Waste

With respect to this heading, CAN asserts “[s]ince an undocumented number of incidents involving soil contamination have occurred evidenced by the tritium leak under 2.4.5 Groundwater and the radioactive fill under 2.4.8 Southeast Construction Fill Area, increased scrutiny of the site should occur to determine the extent of undocumented leaks and spills to identify any and all plumes that may exist in the sub soil.” CAN Contentions at 21-22. CAN specifically references portions of the LTP where YAEC states it found contamination in the groundwater that appeared to come from a leak in the Ion Exchange Pit. *Id.*, citing LTP, Rev. 0 at 2-6. CAN also references YAEC’s statement that it detected Cs-137 in the Southeast Construction Fill Area. *Id.* It appears that CAN believes that the mere fact that YAEC found contamination in those areas shows that YAEC must undertake an investigation to find other contamination. *See id.* CAN, however, ignores the remaining discussion in the LTP, Section 2.4 that describes the surveys performed by YAEC. *See* LTP, Rev. 0, 2-3-2-8. CAN fails to explain how YAEC’s environmental surveys were inadequate. Thus, CAN fails to support this assertion with sufficient facts or expert opinion. *See* 10 C.F.R. § 2.714(b)(2)(ii).

CAN bases its assertion that further investigation is necessary on its claim that there was

illegal handling of radioactive wastes, that YAEC has a “poor radiological control record, and radioactive fill was not permitted to be dumped onsite.”¹⁰ *Id.* CAN, however, fails to establish a link between YAEC’s prior conduct, even if true, and the environmental surveys discussed in the LTP. CAN fails to provide any fact or expert opinion demonstrating that the environmental surveys described in the LTP are inadequate.

CAN also asserts movement of the fill, even if not contaminated, may require, under the National Environmental Policy Act (NEPA) that a site-specific environmental assessment (EA) or environmental impact statement (EIS) be prepared. CAN Contentions at 23. There is no discussion, however, in the LTP regarding the movement of fill. Nor, as discussed in response to CAN’s arguments under heading 6, the movement of fill does not, by itself, require either an EA or EIS. Thus, CAN’s assertion with respect to the fill, however, fails to meet the requirements of 10 C.F.R. § 2.714(b) for an admissible contentions.

8. Waste Contamination and Investigation: Groundwater, Soil, and River Sediment Contamination

CAN alleges that an investigation must be undertaken to determine the extent of the tritium plume resulting from a leak of the ion exchange pit in the 1960’s. CAN Contentions at 23. CAN acknowledges that the LTP § 2.4.5 states that the highest concentration in seven onsite wells found to contain tritium was 8,000 pCi/l where the EPA maximum permissible level is 20,000 pCi/l. *Id.* CAN gives no basis for contending that a concentration well below the EPA level requires that the

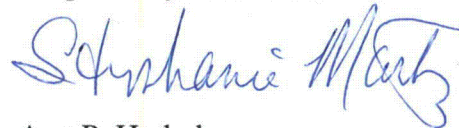
¹⁰ CAN also appears to question YAEC’s statement that it only found Cs-137 in the Southeast Construction Fill Area and that it is likely that the Cs-137 came from fall-out. CAN Contentions at 22. CAN, however, offers nothing to question YAEC’s statements in the LTP.

dimension of any remaining plume be determined at this time. CAN's eighth concern fails to meet the requirements of 10 C.F.R. § 2.714(b) for an admissible contention.

CONCLUSION

For the reasons set forth above, neither NECNP nor CAN has proposed at least one admissible contention. NECNP's and CAN's petitions for leave to intervene should, therefore, be denied.

Respectfully submitted,



Ann P. Hodgdon
Marian L. Zobler
Stephanie R. Martz

Dated at Rockville, Maryland
this 20th day of January, 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

'99 JAN 21 A11:31

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
RULEMAKING AND
ADJUDICATION STAFF

In the Matter of)

YANKEE ATOMIC ELECTRIC COMPANY)

(Yankee Nuclear Power Plant)

) Docket No. 50-029-LA
)
)
)

NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with § 2.713(b), 10 C.F.R. Part 2, the following information is provided:

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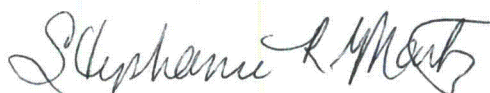
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Admissions: The Supreme Court of the State of Washington

Name of Party: NRC Staff

Respectfully submitted,



Stephanie R. Martz
Counsel for NRC Staff

Dated at Rockville, Maryland
this 20th day of January, 1999.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD 99 JAN 21 A11:31

In the Matter of)

YANKEE ATOMIC ELECTRIC COMPANY)

(Yankee Nuclear Power Station))

Docket No. 50-029-LA

OFFICE OF SECRETARY
RULEMAKING AND
ADJUDICATIONS STAFF

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO CONTENTIONS FILED BY NEW ENGLAND COALITION ON NUCLEAR POLLUTION AND CITIZENS AWARENESS NETWORK" and "NOTICE OF APPEARANCE" for Stephanie R. Martz in the above-captioned proceeding have been served on the following through deposit in the Nuclear Regulatory Commission's internal mail system, or by hand delivery as indicated by an asterisk, or by facsimile transmission as indicated by a double asterisk followed with conforming copy by mail, or by deposit in the United States mail, first class, as indicated by a triple asterisk this 20th day of January, 1999:

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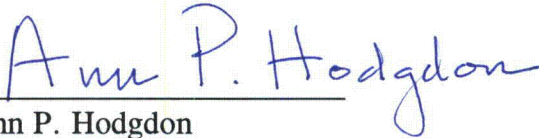
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