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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

'96 SEP 27 P3:37

G. Paul Bollwerk, III, Chairman
Dr. Jerry R. Kline
Dr. Thomas S. Elleman

OFFICE OF SECRETARY
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In the Matter of

YANKEE ATOMIC ELECTRIC COMPANY

(Yankee Nuclear Power Station)

Docket No. 50-029-DCOM

ASLBP No. 96-718-01-R

September 27, 1996

MEMORANDUM AND ORDER
(Granting Motion for Summary Disposition)

This proceeding was convened to consider the challenges of intervenors Citizens Awareness Network, Inc., (CAN) and the New England Coalition on Nuclear Pollution (NECNP) to various aspects of the decommissioning plan put forth by licensee Yankee Atomic Electric Company (YAEC) for its Yankee Nuclear Power Station (Yankee Rowe). In LBP-96-15, 44 NRC 8 (1996), we admitted a single intervenor contention contesting the efficacy of YAEC's decision to use a modified DECON decommissioning option (under which decommissioning is to be completed relatively promptly after facility operation is completed) rather than the SAFSTOR option (which provides for decommissioning only after the facility has been maintained in a "stored" condition for an extended period following operation). According to the intervenors, the licensee's choice runs afoul of both the regulatory

principle that occupational doses should be maintained "as low as reasonably achievable" (ALARA) and the dictates of the National Environmental Policy Act of 1969 (NEPA).

Now pending before the Board is a YAEC motion for summary disposition relative to the intervenors' contention. In its motion, YAEC requests the Board find, as a matter of law, its modified DECON decommissioning alternative does not entail occupational radiation doses that fall outside of the previously analyzed generic parameters within which the Commission has found a licensee's choice of either the DECON or SAFSTOR option will be deemed acceptable for ALARA or NEPA purposes. The NRC staff supports that motion; the intervenors vigorously oppose it.

For the reasons set forth below, we conclude YAEC has established there are no genuine disputed material facts and it is entitled, as a matter of law, to a decision in its favor regarding the CAN/NECNP contention.

I. BACKGROUND

The procedural story of this proceeding up to this juncture has been described elsewhere. See CLI-96-7, 43 NRC 235, 241-46 (1996); CLI-96-1, 43 NRC 1, 5, (1996); CLI-95-14, 42 NRC 130, 131-33 (1995); LBP-96-15, 44 NRC at 12-21; LBP-96-2, 43 NRC 61, 65-68 (1996). Now before the Board is a lone intervenor contention regarding the YAEC

plan for decommissioning the Yankee Rowe facility that we admitted in a July 31, 1996 memorandum and order.¹ It provides:

For Yankee Rowe facility decommissioning, YAEC and the NRC staff have incorrectly assumed that the dose differential between the DECON and SAFSTOR alternatives is less than the 900 person-rem differential deemed acceptable in the 1988 [final generic environmental impact statement (GEIS) supporting the agency's 1988 decommissioning rule]. In fact, the dose differential would be significantly higher than 900 person-rem. Therefore, the ALARA and NEPA cost-benefit balances must be re-evaluated, taking into account the significant radiological dose savings afforded by the SAFSTOR alternative.

LBP-96-15, 44 NRC at 22. In our July ruling, we concluded that a "proportionality" argument proffered by the intervenors provided a sufficient basis for accepting this contention. Based on the information then presented by the intervenors, we found that because the projected dose

¹ Initially, the Board dismissed the intervenors' hearing petition for want of any litigable contentions. See LBP-96-2, 43 NRC at 91-92. Although the Commission subsequently affirmed this ruling on appeal, it sent back for consideration under the "late-filing" standards of 10 C.F.R. § 2.714(a)(1) information filed by the intervenors after our ruling dismissing the hearing petition. See CLI-96-7, 43 NRC at 277. In LBP-96-15, 44 NRC at 21-37, we determined the intervenors' so-called "new dose argument" constituted a new contention, the terms of which are set forth in the text above; found the contention met the standards for late-filing; and concluded that contention was supported by an adequate basis, i.e., the "proportionality" theory discussed below. None of the parties filed an appeal from or sought reconsideration of these determinations.

figures for certain planned decommissioning activities entailed doses that could not be considered de minimus compared to completed activities and because the remaining facility radioactivity level was not insignificant, there was a reasonable possibility the intervenors could establish a total DECON dose for completed and future activities that fell outside the 900 person-rem differential reflected in the 1988 GEIS.² This, the Board decided, presented the requisite material factual dispute warranting further inquiry so as to permit admission of the intervenors' contention. See id. at 36.

² Regarding the 900 person-rem differential that the Commission previously has indicated is significant relative to the validity of a licensee's choice between the DECON and SAFSTOR options, see CLI-96-7, 43 NRC at 251-53, in LBP-96-15, 44 NRC at 13 n.2, we noted:

This 900 person-rem figure reflects the approximate difference between the GEIS estimated total reference pressurized water reactor (PWR) DECON decommissioning occupational dose of 1,215 person-rem and the GEIS estimated SAFSTOR occupational dose of 333 person-rem that would be accrued using a 30-year storage period at the reference PWR. See Office of Nuclear Regulatory Research, USNRC, NUREG-0586, "Final Environmental Impact Statement on Decommissioning of Nuclear Facilities" (Aug. 1988) at 4-8 (Table 4.3-2). The GEIS was prepared in support of the 1988 rule that is the basis of pertinent NRC decommissioning requirements. See 53 Fed. Reg. 24,018 (1988).

In accepting this contention, the Board also noted that resolving its merits involves two distinct litigation stages: an "envelope" phase and a "relief" phase. As we described it:

The "envelope" phase involves a determination of whether the YAEC DECON decommissioning process will result in occupational doses that exceed the 900 person-rem GEIS "envelope" such that additional ALARA and/or NEPA analysis is necessary. If we should decide that, in fact, the GEIS parameters have been exceeded to a degree that warrants further ALARA and/or NEPA analysis, only then do we need to consider the question of "relief" regarding the appropriate manner for providing that analysis and litigating its sufficiency.

Id. at 37. Because the Board then had pending before it a YAEC "conditional" request for summary disposition, with supporting affidavit, that generally addressed the "envelope" phase of intervenors' challenge to the licensee's DECON option choice,³ in accord with earlier Commission guidance the Board established an expedited litigation schedule for considering that motion and, if necessary, holding an evidentiary hearing. See LBP-96-15, 44 NRC at 37-45.

³ See Conditional Motion for Summary Disposition ("New Dose Argument") (July 10, 1996); Memorandum of [YAEC] in Opposition to Late Filed "New Dose Information" and in Support of Conditional Motion for Summary Disposition (July 10, 1996) [hereinafter YAEC Summary Disposition Memorandum]; Affidavit of Russell A. Mellor (July 10, 1996) [hereinafter Mellor Summary Disposition Affidavit].

Initially, intervenors CAN and NECNP had a chance to obtain both informal and formal discovery from YAEC and the staff on the "envelope" phase of their challenge. Discovery closed on August 30, 1996, without the parties bringing any discovery disputes to the Board for resolution. Thereafter, the licensee had an opportunity to supplement its summary disposition request, which it did in a September 3, 1996 filing that included a statement of uncontested facts and supporting affidavits.⁴ Under the Board's schedule, the staff had the chance to seek summary disposition as well; instead, the staff chose to file a response in support of YAEC's motion, with supporting affidavits.⁵ At nearly the same time, acting under the Board's schedule, the intervenors filed a response in opposition to YAEC's motion, with a statement of disputed material facts and a supporting

⁴ See Memorandum of [YAEC] in Support of Motion for Summary Disposition (Sept. 3, 1996) [hereinafter YAEC Supplemental Memorandum]; Statement of Uncontested Facts (Sept. 3, 1996) [hereinafter YAEC Uncontested Facts]; Affidavit of Dade W. Moeller, Ph.D. (Aug. 27, 1996) [hereinafter Moeller Affidavit] Supplemental Affidavit of Russell A. Mellor (Sept. 3, 1996) [hereinafter Mellor Supplemental Affidavit].

⁵ See NRC Staff's Response in Support of [YAEC's] Motion for Summary Disposition (Sept. 9, 1996) [hereinafter Staff Response]; Affidavit of Charles A. Willis in Support of the NRC Staff's Response in Support of [YAEC's] Motion for Summary Disposition (Sept. 9, 1996) [hereinafter Willis Affidavit]; Affidavit of Morton B. Fairtile in Support of the NRC Staff's Response in Support of [YAEC's] Motion for Summary Disposition (Sept. 9, 1996) [hereinafter Fairtile Affidavit].

affidavit.⁶ The licensee then filed a reply to the intervenors' opposition, with a supporting affidavit, while the intervenors sought leave to file a reply to the staff's supporting response, with an accompanying reply pleading and supporting affidavit.⁷

⁶ See [CAN/NECNP] Opposition to YAEC's Motion for Summary Disposition (Sept. 10, 1996) [hereinafter CAN/NECNP Opposition]; [CAN/NECNP] Statement of Material Facts in Dispute (Sept. 10, 1996) [hereinafter CAN/NECNP Disputed Facts]; Affidavit of Marvin Resnikoff, Ph.D. (Sept. 6, 1996) [hereinafter Resnikoff Opposition Affidavit].

⁷ See Reply Memorandum of [YAEC] (Motion for Summary Disposition) (Sept. 13, 1996) [hereinafter YAEC Reply]; Supplemental Affidavit of Russell A. Mellor (Sept. 13, 1996) [hereinafter Mellor Reply Affidavit]; [CAN/NECNP] Conditional Agreement to Unauthorized Filing of NRC Staff's Response in Support of YAEC's Motion for Summary Disposition, and Motion for Leave to Reply (Sept. 13, 1996); [CAN/NECNP] Reply to NRC Staff's Response in Support of YAEC's Motion for Summary Disposition (Sept. 13, 1996); [CAN/NECNP] Reply Statement of Material Facts in Dispute (Sept. 13, 1996) [hereinafter CAN/NECNP Reply Disputed Facts]; Reply Affidavit of Marvin Resnikoff, Ph.D. (Sept. 12, 1996) [hereinafter Resnikoff Reply Affidavit].

As part of their September 13, 1996 filings, the intervenors assert the staff's September 9 response was inappropriate under the Board's July 31, 1996 scheduling directive, which established a deadline for the staff to file a summary disposition motion. In providing for a staff summary disposition motion, it was not the Board's intent to abrogate the provisions of 10 C.F.R. § 2.749(a), which indicates that any party to a proceeding can file an answer to a summary disposition motion "supporting or opposing the motion." As such, the staff's pleading was appropriate.

Regarding the intervenors' request to file a reply to the staff's response, which the staff opposes, see NRC Staff's Opposition to Intervenors' September 13, 1996 Motion for Leave to Reply (Sept. 17, 1996), the intervenors' motion is not strictly in compliance with our requirement that a party seek Board approval prior to filing a reply (other
(continued...))

Subsequently, after reviewing the parties' pleadings, we issued a memorandum advising them we did not intend to hold an oral argument prior to deciding the licensee's motion.⁸ See Board Memorandum (Summary Disposition Oral

(...continued)

than for a YAEC or staff reply to a summary disposition motion response). See LBP-96-15, 44 NRC at 41, 43. Nonetheless, because the intervenors' responsive filing is consistent with our general concern, as reflected in the summary disposition schedule, that they have an opportunity to respond to any initial staff filing regarding summary disposition, see id. at 43, we grant the CAN/NECNP motion.

We cannot say the same for a September 17, 1996 intervenor motion seeking leave to file what is in essence a surreply to the licensee's reply to their opposition to YAEC's dispositive motion. See [CAN/NECNP] Motion for Leave to Reply to YAEC's Reply Memorandum (Summary Disposition) (Sept. 17, 1996). As YAEC points out in its opposition to that motion, the opportunity afforded the licensee and the staff to file a reply "is not a general absolution for all replies in the summary disposition phase of this case." Answer of [YAEC] to [CAN/NECNP] Motion for Leave to Reply to YAEC's Reply Memorandum (Summary Disposition) (Sept. 18, 1996) at 2. The intervenors are represented by counsel who are well able to understand and follow a clear directive such as our requirement for preapproval of replies. Under the circumstances, there being no showing of good cause for their failure to seek preapproval, we deny intervenors' motion for leave to file their additional reply.

In doing so, however, we note that, even if we were to accept the intervenors' filing, nothing in it would change the result we reach here. In fact, as it might be pertinent to our decision here, it appears to reflect no more than a rephrasing of earlier arguments without the addition of relevant new information or perspective.

⁸ The Commonwealth of Massachusetts also has participated in the proceeding as an interested governmental entity pursuant to 10 C.F.R. § 2.715(c). The Commonwealth did not make any substantive submissions in connection with the licensee's summary disposition motion.

Argument and Location for Evidentiary Hearing) (Sept. 16, 1996) at 1 (unpublished).

II. ANALYSIS

A. Standards Governing Summary Disposition

Section 2.749 of title 10 of the Code of Federal Regulations, the Commission's administrative analog to Rule 56 of the Federal Rules of Civil Procedure, authorizes a party to request, and a presiding officer to render, a decision in the moving party's favor on any part of the matters in controversy in the proceeding. According to section 2.749(d):

The presiding officer shall render the decision sought if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statement of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.

See also Advanced Medical Systems, Inc. (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).

The party filing the summary disposition motion has the burden of demonstrating the absence of any genuine issue of material fact. See id. In this regard, section 2.749(a) requires that moving party include a statement of material facts about which there is no genuine issue to be heard. In contrast, the opposing party must append to its response a

statement of material facts about which there exists a genuine issue to be heard. If the responding party does not adequately controvert material facts set forth in the motion, the party faces the possibility that those facts may be deemed admitted. See 10 C.F.R. § 2.749(a). If, however, the evidence before the Board does not establish the absence of a genuine issue of material fact, then the motion must be denied even if there is no opposing evidence. See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753-54 (1977).

Nevertheless, a party opposing a motion cannot rely on a simple denial of the movant's material facts, but must set forth specific facts showing there is a genuine issue of material fact. See 10 C.F.R. § 2.749(b).

B. The Parties' Arguments

As the discussion above suggests, the cardinal focus of our inquiry here is whether there are material factual issues in genuine dispute relative to the size of the modified DECON option dose as it is used in computing the Yankee Rowe DECON/SAFSTOR differential for comparison with the GEIS DECON/SAFSTOR differential "envelope." In support of its dispositive motion, YAEC asserts that the appropriate inquiry concerns two matters: (1) the relevant occupational exposures incurred to date for decommissioning; and (2) the "correct" estimate of the occupational exposure that will be

incurred completing Yankee Rowe decommissioning. Regarding the "to date" occupational exposures, YAEC declares that the figure through mid-June 1996 is 440 person-rem. For the "to go" occupational dose estimate, YAEC maintains the appropriate figure is a total exposure of 140 person-rem, the correctness of which can be accepted with a high degree of confidence based on YAEC's past experience with providing estimates. See YAEC Summary Disposition Memorandum at 19; YAEC Supplemental Memorandum at 3-7; see also YAEC Uncontested Facts at 11-12. As support for these assertions, YAEC provides affidavits from Russell A. Mellor, the decommissioning manager for the Yankee Rowe facility, that describe the current status of decommissioning, the history of occupational exposure estimates for Yankee Rowe decommissioning, the methodology used in accumulating actual exposures and estimating future exposures, and reasons why YAEC's estimates are reasonably accurate and conservative. See Mellor Summary Disposition Affidavit at 2-6; Mellor Supplemental Affidavit at 2-15; see also YAEC Uncontested Facts at 2-8.

In addition, YAEC asserts that the "proportionality" theory that was the basis for the intervenors' admitted contention is neither a valid nor reliable way to estimate future exposures because it fails to account for a variety of factors affecting exposure rates, including the nature of

the task to be performed, the number of people engaged in the work and their experience level, and the radiation shielding employed. As support for this proposition, YAEK relies upon both the discussion in one of Mr. Mellor's affidavits and a separate affidavit from Dr. Dade W. Moeller. See Mellor Supplemental Affidavit at 15-18; Moeller Affidavit at 3-10; see also YAEK Uncontested Facts at 9. In particular, Dr. Moeller gives a detailed analysis of the specific factors that affect occupational radiation doses and provides examples of Yankee Rowe decommissioning activities that run contrary to the intervenors' "proportionality" theory, including steam generator and irradiated hardware liner removal.

Based on this information, about which YAEK asserts there is no genuine issue to be heard, YAEK declares that even if the SAFSTOR exposure for Yankee Rowe were assumed to be zero (rather than the GEIS SAFSTOR estimated exposure of 333 person-rem) the differential between total Yankee Rowe DECON exposures of 580 person-rem and SAFSTOR would fall well within the GEIS 900 person-rem differential that is the "envelope" for this proceeding. As a consequence, YAEK asserts that it is entitled to summary disposition in its favor relative to the CAN/NECNP contention. See YAEK Supplemental Memorandum at 11-12.

In its September 9 response supporting YAEC's dispositive motion, the staff declares its essential agreement with the main points made by YAEC. The staff states that, in comparison with the occupational exposure figure of 457 person-rem for all facility activities set forth in NRC inspection reports through April 1996, the YAEC "to date" figure of 440 person-rem occupational exposure for decommissioning activities is reasonable. The staff also asserts that the methodology described by YAEC for reaching its "to go" figure of 140 person-rem is acceptable because it comports with industry practice; previously projected doses for now-completed dismantlement activities were consistent with doses actually accrued; remaining work is similar to work already completed; and licensee personnel can be expected to avoid unexpected doses because they know the facility. See Staff Response at 5-9. In support of these assertions, the staff provides the affidavits of NRC senior health physicist Charles A. Willis and Morton B. Fairtile, the senior project manager in charge of staff review of Yankee Rowe decommissioning. See Willis Affidavit at 2-3; Fairtile Affidavit at 2-4.

Moreover, on the issue of the intervenors' "proportionality" theory, agreeing with the criticisms leveled by YAEC affiant Moeller, the staff (relying on its affiant Willis) likewise finds this concept invalid.

Although recognizing that some direct relationship between the level of radioactivity (curies) and the absorbed dose (person-rem) could exist, the staff rejects intervenors' theory because ultimately it fails to account for the various job specific factors that will affect occupational dose, including worker time in the radiation field, distance from the source, and shielding. See Staff Response at 9-11; Willis Affidavit at 3-4. The staff concludes that because the licensee's factual showing clearly establishes its DECON option falls within the 900 person-rem GEIS "envelope," the licensee is entitled to a decision in its favor on the intervenors' contention.

In their September 10, 1996 response to YAEC's dispositive motion, intervenors CAN/NECNP oppose the licensee's summary disposition request, asserting that they estimate the expected DECON dose should be to be at least 1184 person-rem, making the differential between YAEC's modified DECON option and the SAFSTOR option at least 1000 person-rem, a figure well outside the GEIS 900 person-rem "envelope." See CAN/NECNP Opposition at 2; CAN/NECNP Disputed Facts at 1-2. In reaching this conclusion, they describe a series of flaws in the YAEC analysis by which the licensee has incorrectly measured, underestimated, or failed to support its dose estimates. These items of intervenor

criticism, which are drawn from a supporting affidavit of Dr. Marvin Resnikoff, can be summarized as follows:

1. In assessing thermoluminescent dosimeter (TLD) readings, YAEC failed to make appropriate corrections for background radiation in determining which workers incurred "no measurable exposures," thereby underestimating doses by at least twenty-five person-rem.
2. YAEC ignores a full year of decommissioning work that took place in 1992, which included unloading irradiated fuel and control rods from the reactor, cutting and shipping the control rods to the Barnwell, South Carolina radioactive waste disposal site, and conducting a detailed reactor radiation survey, thereby under reporting doses by ninety-four person-rem.
3. YAEC did not count exposures incurred during "operation and maintenance" (O&M) activities as decommissioning doses, as was done under the "continuing care" category in the GEIS for the SAFSTOR option, thereby underreporting occupational exposures by some thirty-four person-rem.
4. YAEC has not provided enough information regarding the "to go" activities described in its pleadings -- in particular those in the categories of "Etc." and "Miscellaneous" -- to determine whether the dose it estimates for those activities is appropriate.
5. YAEC's reliance on a 1993 dose estimate as a harbinger of the accuracy and conservatism of its recent "to go" estimate is unsupported because (a) most of the activities involved are incomplete or not started or were already well underway when the estimate was made; (b) YAEC has not supported its statement that the level of uncertainty is reduced by experience, given its failure outlined in paragraph 4 above to provide sufficient information; (c) YAEC's reliance on cobalt-60 decay as a measure of its conservatism is misplaced in that it fails to account for other radioactive contaminants with longer half-lives; and (d) the accuracy of its predictions for upcoming projects is suspect given the long-term

or otherwise unanalyzed nature of those projects, such as concrete decontamination.

6. Rather than YAEC's figure of 140 person-rem "to go," it is reasonable to assume a "to go" figure of 400 person-rem over the next two-and-one-half years needed to complete "to go" decommissioning, given (a) decommissioning occupational exposures over the past several years have been on the order of 160 person-rem per year; and (b) the nature of the remaining projects, such as concrete decontamination.

7. YAEC has not adequately considered inhalation doses in that (a) all radionuclides were not included in its calculations; (b) radionuclide decay and biological half-lives were not calculated correctly; and (c) "hot particle" dose inhalation was not accounted for, resulting in an dose underestimation of at least seven person-rem.

8. YAEC has entirely failed to account for doses incurred in the offsite processing of contaminated waste, which can reasonably be estimated to add forty-one person-rem to occupational doses.

9. YAEC erred by using the outdated WASH-1238 model to arrive at an original estimated transportation dose of forty-one person-rem (thirty-four person-rem to truckers/rail workers, seven person-rem to the public) rather than using the modern RADTRAN model that would result in an estimated dose of 103 person-rem (nine person-rem to truckers/rail workers and ninety-four person-rem to the public).

10. YAEC has underestimated total public exposures due to airborne effluent emissions, although by how much is unclear because YAEC failed to provide sufficient information for calculations.

11. YAEC has not made any decommissioning dose estimate for facility site soil cleanup, which would entail unspecified additional exposures.

12. The SAFSTOR dose estimate should be based on a 186 person-rem figure given in an 1979 decommissioning study that included Yankee Rowe (NUREG-0130, Addendum (Aug. 1979)) rather than the

333 person-rem that was set forth in the 1988 GEIS, which has the effect of increasing the total DECON/SAFSTOR dose differential for Yankee Rowe by 147 person-rem.

See CAN/NECNP Opposition at 3-13; CAN/NECNP Disputed Facts at 2-11; Resnikoff Opposition Affidavit at 5-17.

Thereafter, in their September 17, 1996 reply to the staff's response in support of that motion, the intervenors take issue with the staff's assertion that YAEK's estimation methods comport with industry standards, asserting that this does not guarantee they are reliable. Among other things, the intervenors again declare, as they did in items four and five above, that the information provided by YAEK is not sufficient to evaluate the reliability of its dose projections and that the projections involved were based on actual measurements or near-term projects. They also dispute the staff's assertions regarding the routine nature of future work and its similarity to already completed tasks, asserting that the concrete decontamination and demolition work, which constitutes a significant portion of the remaining tasks, as well as work involving soil/groundwater contamination and reactor vessel removal are neither like completed work nor routine. See CAN/NECNP Reply Disputed Facts at 1-7; Resnikoff Reply Affidavit at 1-3.

In its reply to the intervenors' response, YAEK asserts initially that because the intervenors' 1184 person-rem

estimate is below the GEIS DECON estimate of 1215, the Board need inquire no further. The licensee also notes that if each of the exposures for which intervenors' specify a dose are accepted -- other than items three, seven, eight, and nine that YAEC asserts are not applicable because they are not within the scope of the GEIS -- along with their value of 186 person-rem for SAFSTOR, the resulting differential value is still well within the 900 person-rem "envelope." YAEC further declares that, given their failure to mention it, the intervenors clearly have abandoned their "proportionality" theory to focus on the specific components that make up the "to date" and "to go" DECON doses. See YAEC Reply at 1-3.

Looking then to the intervenors' specific challenges to the licensee's "to date" and "to go" doses, YAEC first asserts that Dr. Resnikoff's affidavit analyzing those matters should be stricken because his credentials make it clear he is not qualified to act as an expert witness on dosimetry, health physics, and construction engineering, the subjects that are at issue relative to those doses. See id. at 3-4. Further, relative to the particular items of intervenor concern described above, YAEC declares:

1. Regarding item nine, (a) the intervenors' attempt to introduce public exposure relative to transportation doses is improper because the GEIS and the 900 person-rem differential relate only to occupational exposures; and (b) contrary to the intervenors' assertion, YAEC did not arrive at its

present estimate of seven person-rem for transportation workers (which is in line with the intervenors' RADTRAN estimate of nine person-rem) by "scaling down" transportation doses to account for the smaller size of Yankee Rowe relative to the GEIS reference reactor, but rather to account for its estimate that fewer shipments would be required for that facility.

2. Regarding item one, (a) the intervenors' discussion of background dose corrections is confused about the distinction between correcting for such doses by removing them from incurred dose measurements and correcting for exposures incurred for TLDs while those devices are in storage and not being worn; and (b) although permitted to do so, YAEC does not subtract background from dosimeters while in use, thereby adding to the conservatism of its exposure figures.

3. Regarding item four, the intervenors' claim that they were provided with insufficient information to make a disciplined analysis of YAEC's "to go" analysis is incorrect because during discovery they were given documents that gave a detailed breakdown of all the "to go" activities, including estimated worker hours and exposure rates and their expert was provided an opportunity to ask any questions he wanted about these matters.

4. Regarding item six, (a) the intervenors' use of extrapolations regarding the yearly exposure rate and the amount of time remaining to complete decommissioning to reach the figure of 400 person-rem is entirely without basis, particularly because, as Dr. Moeller's affidavit establishes, a "proportionality"-based argument regarding exposures is entirely speculative; and (b) besides failing to attach any particular person-rem value to concrete decommissioning, the intervenors' suggestion that concrete structure decommissioning will involve high occupational exposures because of the use of explosives on the contaminated concrete and the lack of any full accounting of the amount of concrete contamination at the facility does not account for the fact that the Yankee Rowe decommissioning plan provides for concrete structures to be decontaminated to background before being demolished and that the

decommissioning plan contains data on concrete contamination.

5. Regarding item eleven, the intervenors' assertions that there is no site characterization plan and that soil contamination will result in additional exposures does not account for the site characterization data submitted with the decommissioning plan and YAEC's conclusion, based on that data, that exposure for such activities will be low because the radioactivity level is low.

6. Regarding item seven, besides the fact that the report that is the basis for the GEIS (NUREG/CR-0130 (June 1978)), did not include inhalation dose figures, YAEC asserts that inhalation doses do not matter because YAEC has counted them during the decommissioning period, taking into account all significant radionuclides, and found them to be an insignificant contributor to dose (0.5 person rem).

7. Regarding item three, the applicable GEIS table (Table 4.3-2) (a) specifically acknowledges that "custodial care," which is long-term care unique to the SAFSTOR, is not applicable to DECON; and (b) does not include DECON-period routine O&M, such as spent fuel pool operation or license-required routine maintenance, surveillance, and inspection.

See YAEC Reply at 4-10; Errata to Reply Memorandum of [YAEC] (Motion for Summary Disposition) (Sept. 16, 1996) at 1; Mellor Reply Affidavit at 1-11.

In addition, YAEC asserts that in bifurcating this proceeding into an "envelope" phase and a "relief" phase, the Board has applied an incorrect legal standard relative to the question of whether the YAEC DECON option will exceed the 900 person-rem occupational exposure DECON/SAFSTOR differential that the Commission has indicated is the

general benchmark for judging the validity of a licensee decommissioning option choice. According to YAEK, because a significant portion of the decommissioning work has been done relative to this facility, any judgment now about whether it is appropriate to shift from DECON to SAFSTOR should be based solely on an analysis of whether the exposures necessary to remove the existing facility radioactivity would exceed the 900 person-rem differential. See YAEK Reply at 10-13.

C. Discussion

YAEK's declaration that it is entitled to a decision in its favor on the intervenors' admitted contention rests on its assertion that there are no genuine material factual disputes concerning two decommissioning dose figures: (1) "to date" occupational exposures for its modified DECON process have amounted to 440 person-rem; and (2) occupational exposures "to go" are estimated at 140 person-rem. According to the licensee, this amounts to a total DECON decommissioning occupational exposure of 580 person-rem that, when compared to the GEIS figure of 333 person-rem for the SAFSTOR option, results in a differential of approximately 250 person-rem that is well within the relevant 900 person-rem "envelope" identified by the Commission. The intervenors, in contrast, seek to establish that a genuine material factual dispute exists regarding one

or more of these numbers. As we have outlined above, they assert additional dose amounts are applicable to the "to date" 440 person-rem figure (items one, two, three, seven, eight, and ten) and the "to go" 140 person-rem figure (items four, five, six, nine, and eleven). They also maintain that the GEIS SAFSTOR dose figure of 333 person-rem should not be used for determining whether the "envelope" has been exceeded; rather, the intervenors declare the appropriate number is 186 person-rem, based on a 1979 decommissioning study that included Yankee Rowe as one its reference reactors.

YAEC, the staff, and the intervenors have presented affidavits of "expert" witnesses in support of their contrary assertions regarding the existence of genuine material factual disputes relative to the various additional/revised exposure figures introduced by the intervenors.⁹ In at least one instance, the intervenors' point may be well taken. Their assertion regarding the failure of the licensee to include exposures (41 person-rem) relating to the offsite processing of contaminated wastes (item eight) likely has merit. In other instances, their

⁹ As was noted above, YAEC has challenged the credentials of the intervenors' expert witness, Dr. Marvin Resnikoff, to testify in a number of areas including dosimetry, health physics, and construction engineering. See supra p. 18. For present purposes we need not resolve that matter because, even assuming Dr. Resnikoff has the required expertise, we find that those intervenor concerns for which his affidavits are cited as support do not create a genuine disputed material factual issue.

claims apparently have no validity. For example, the additional dose (94 person-rem) they attribute to the public relative to waste transportation (item nine) seemingly has no relevance here because the 900 person-rem envelope with which we are concerned under the admitted contention is one that involves occupational -- not public -- doses.¹⁰

Ultimately, however, we need not consider each of the intervenors' claims regarding these purported factual disputes because, under our analysis, they do not fulfill the requirement that they be "material" to our resolution of the licensee's summary disposition motion. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986) (factual disputes that are "irrelevant or unnecessary" will not preclude summary judgment). This is so because, even if (1) those items for which the intervenors' have ascribed a dose figure are attributed to either the licensee's "to date" or "to go" figures as the intervenors' assert they should be,¹¹

¹⁰ Although the intervenors' original ALARA contention (Contention A) made reference to public exposures, see LBP-96-15, 44 NRC at 18, as recast by the Board to reflect the substance of the intervenors' "new dose argument," the admitted contention clearly relates only to occupational doses because they are the basis for the 900 person-rem "envelope" now at issue. See supra note 2.

¹¹ The intervenors have raised several concerns about YAEC dose calculations or estimates without indicating what additional exposure can be attributed to their concern. These include their assertions about the vagueness of the licensee's "to go" miscellaneous category (item four); uncertainty over the validity of past YAEC estimates (item
(continued...)

and (2) we utilize the intervenor-proffered 186 person-rem SAFSTOR occupational dose figure, the DECON/SAFSTOR differential that would result with the inclusion of those occupational exposure would not exceed the 900 person-rem envelope.¹²

(...continued)

five); uncertainty over concrete contamination (items five and six); failure to account for "hot particles" (item 7(c)); underestimation of total public airborne effluent emission exposures (item 10); and uncertainty over soil cleanup (item eleven). In the context of the admitted contention, in which we are called upon to consider whether the total Yankee Rowe DECON exposure falls within a specified envelope, this failure to provide any estimate of the exposures involved essentially renders these concerns immaterial.

Given this flaw, which in many instances seems rooted in the adequacy of intervenors' discovery efforts, see infra pp. 26-27, these matters could be rejected out of hand. We nonetheless do deal with the first three of these concerns below in the context of our discussion of the validity the intervenors' argument that the YAEC "to go" dose estimate is deficient and should be 400 person-rem. See infra pp. 26-31. As to the others, even putting aside the fact that the purported underestimation of public airborne effluent exposures seemingly is not relevant because the concern here is with occupational exposures, see supra note 10 and accompanying text, we note that there is no sufficiently probative evidence that this item or the "hot particle" or soil contamination concerns, even if accepted, would make any significant contribution to total DECON exposures. See Anderson, 477 U.S. at 249 (evidence that is "merely colorable" or is "not significantly probative" will not preclude summary judgment). Compare Mellor Supplemental Affidavit at 10-11 and Mellor Reply Affidavit at 8-11 with Resnikoff Opposition Affidavit at 11-12, 15-17 and Resnikoff Reply Affidavit at 2.

¹² The following Board-constructed table illustrates this point:

(continued...)

The one factual matter that we do consider because it is potentially "material" is the intervenors' assertion that the licensee's "to go" figure should be 400 person-rem rather than the 140 person-rem projected by YAEK, a difference of 260 person-rem. In contesting the 140 person-rem figure,¹³ the intervenors have asserted that disputed material factual issues exist relative to that figure in that (1) because of the general description of the delineated activities and a separate category of "etc." or "miscellaneous" activities, they do not have enough information regarding the "to go" activities to affirm the reasonableness of the YAEK estimate

(...continued)

Yankee Rowe "To Date" Exposures	440 person-rem
Yankee Rowe "To Go" Estimated Exposures	140 person-rem
Background Underestimation (item one)	25 person-rem
1992 "DECON" Exposures (item two)	94 person-rem
Operation and Maintenance (item three)	34 person-rem
Inhalation Doses (item seven)	7 person-rem
Offsite Waste Processing (item eight)	41 person-rem
Transportation Exposures (item nine)	96 person-rem
Yankee Rowe DECON Total Exposures	877 person-rem
Minus 1979 Yankee Rowe SAFSTOR Estimate	186 person-rem
Yankee Rowe DECON/SAFSTOR Differential	691 person-rem

¹³ Although YAEK gives a "to go" estimate of 140 person-rem, in referring to this estimate the intervenors use a figure of 91 person-rem. See, e.g., Resnikoff Opposition Affidavit at 19. This apparently is taken from a subtotal figure given on a table supplied by Mr. Mellor to explain the nature of the licensee's "to go" estimate. See Mellor Supplemental Affidavit, exh. 2. We are unable to discern the intervenors' basis for using the lower figure, and thus utilize the higher, 140 person-rem figure supported by the licensee.

(item four); (2) YAEK estimation methodology is suspect (item five); and (3) recognizing that yearly exposure rate for the prior years in which decommissioning has been conducted has been approximately 160 person-rem, it is "reasonable to assume" that rate will obtain for the two and one-half years that they assert remain to complete balance of the project (item six). We look to each of these asserted genuine material factual disputes in turn.

The agency's rules of practice in 10 C.F.R. § 2.749(c) provide:

Should it appear from the affidavits of a party opposing the motion that he cannot, for reasons stated, present by affidavit facts essential to justify his opposition, the presiding officer may refuse the application for summary decision or may order a continuance to permit affidavits to be obtained or make such other order as is appropriate

In this instance, the intervenors' assertions about a lack of information regarding activity descriptions and a "miscellaneous" activities category generally would be the type of argument made to support obtaining discovery. The problem is that, consistent with their previous concerns about their need for information to respond to the YAEK summary disposition motion, see LBP-96-15, 44 NRC at 38-39, they already have been given the opportunity to conduct discovery regarding their contention.

The intervenors complain about a lack of detail in the description in Mr. Mellor's July 10, 1996 affidavit, which indicated that the 140 person-rem "to go" figure was a "[p]rojection to compile all remaining decommissioning activities (e.g., reactor vessel removal, lower neutron shield tank removal, activated concrete removal, decontamination of buildings, etc.)." Mellor Summary Disposition Affidavit at 11 n.1. They, however, had an opportunity to take discovery to find out the exact nature of those items. They did not submit a motion to compel or any other complaint about the discovery information provided by YAEC. As a consequence, we have no cause to believe the intervenors were denied any information they requested regarding the nature of the remaining "to go" activities. Having apparently failed fully to utilize the discovery afforded them, they cannot now interpose that shortcoming as the basis for a genuine material factual dispute.¹⁴

Regarding the question of the YAEC estimation method as it reflects on the viability of its "to go" estimate, as we noted above, the licensee has provided an extensive narrative discussion of the history of its decommissioning

¹⁴ The particular "miscellaneous" category that is the subject of this intervenor concern, see Mellor Supplemental Affidavit, exh. 2, accounts for only 14 person-rem, an amount that, even if doubled or tripled, would make no material contribution to the occupational dose differential at issue here.

dose estimation efforts, including the first estimate made by TLG Engineering, Inc., in 1992, a 1993 estimate prepared by YAEC itself, and the 1996 estimate that is the basis for the current "to go" estimate of 140 person-rem. See Mellor Summary Disposition Affidavit at 3-5; Mellor Supplemental Affidavit at 4-8. Additionally, YAEC sets forth a detailed explanation of the methodology, i.e, engineering analysis, used in arriving at those estimates, which the staff finds acceptable. See Mellor Summary Disposition Affidavit at 2-3; Mellor Supplemental Affidavit at 13-15; Willis Affidavit at 2-3; Fairtile Affidavit at 2-3. In this regard, the licensee describes a number of phenomena that provide confidence in its exposure estimates. These include (a) radioactive isotope decay from Cobalt-60, that results in a thirteen percent dose field reduction per year; (b) radioactive source term removal procedure, which results in dose rates diminishing because more contaminated components are removed first; and (c) integration of "lessons learned."

Finally, YAEC has provided supporting documentation (which it declares was provided to intervenors during discovery) that outlines in detail the various activities that make up its "to go" estimate. This documentation include figures showing the estimate of exposure hours to perform each activity, the effective dose rate in the work area, and the estimated person-rem dose for the activity,

the components needed to arrive at an estimate of worker exposure for the various activities. See Mellor Supplemental Affidavit, exh. 6, attach. 2 (Memorandum RP-96-19); see also id., exh. 4 (Memorandum YSM-96-20).¹⁵

In the face of this information, the intervenors declare that there are several disputed material factual issues relative to the validity of the YAEC estimates. See CAN/NECNP Disputed Facts at 4-8; CAN/NECNP Reply Disputed Facts at 2-7. Based on our review of the parties filings, however, the only one of these that apparently would have any real significance relative to the validity of the YAEC estimates is the intervenors' concern about concrete contamination. See CAN/NECNP Reply Disputed Facts at 3-4 ("significant portion of the remaining work" involves demolition and other activities associated with contaminated concrete).

According to the intervenors, the "reasonableness" of the YAEC estimate is suspect because concrete decommissioning will be "dirty" and the extent of concrete contamination is unknown, meaning that, notwithstanding the general decline in the facility's radioactive inventory, this activity could cause unaccounted-for exposures. See

¹⁵ So there is no confusion regarding our citations to the record, we note that the Mellor Supplemental Affidavit contains six exhibits, some of which, in turn, include attachments labeled as "exhibit."

CAN/NECNP Disputed Facts at 7; CAN/NECNP Reply Disputed Facts at 4; Resnikoff Opposition Affidavit at 9; Resnikoff Reply Affidavit at 2. In fact, as is reflected in the Yankee Rowe decommissioning plan, the licensee has made efforts to survey and account for the extent of concrete contamination. See Yankee Atomic Electric Company, Yankee Nuclear Power Station Decommissioning Plan at 3.1-7 to -8, Tables 3.1-5 to -7 (rev. 0.0 Dec. 1993) [hereinafter Decommissioning Plan]; see also Mellor Supplemental Affidavit, exh. 6, attach. 2 (exposure estimates for activities including "concrete/steel decon," "[vapor container (vc)] concrete/steel decon" below and above charging floor, and "vc activated concrete removal"). Further, although the intervenors postulate a "dirty" concrete decommissioning process based, at least in part, on the use of "explosives," the plan indicates that (1) explosives are not to be used in decommissioning; (2) structures generally are to be decontaminated before they are taken down; and (3) if coatings and hand wiping will not stabilize surface contamination, then airborne contamination control and waste processing systems will be used to control contamination releases. See Decommissioning Plan at 1.2-4, 2.3-10, 2.3-12 to -13; see also 1 Yankee Atomic Electric Company, Final Safety Analysis Report, Yankee Nuclear Power Station, Rowe, Massachusetts at 10, 200-7, 200-9 to -10

(rev. June 1995). In the latter instance, any water from surface washing methods will be collected and processed in the plant liquid waste processing system, while contaminants from methods that will result in airborne particulate matter will be controlled using vacuum removal with high efficiency particulate air (HEPA) filtration systems. See id. In this light, the intervenors' bald assertion that concrete decontamination will provide an unspecified level of exposure is simply conjecture that, even when supported by an expert, will not establish a genuine material factual dispute. See United States v. Various Slot Machines on Guam, 658 F.2d 697, 700 (9th Cir. 1981) (in the context of a summary judgment motion, an expert must back up his opinion with specific facts); see also McGlinchy v. Shell Chemical Co., 845 F.2d 802, 807 (9th Cir. 1988) (expert's study based on "unsupported assumptions and unsound extrapolation" cannot be used to support summary judgment motion).

Finally, wholly inadequate to establish a material factual dispute is the intervenors' assertion that it is "reasonable to assume" a 400 person-rem "to go" figure based on an "average" yearly 160 person-rem exposure rate over the purported two and one-half year duration of the project. Resnikoff Opposition Affidavit at 9. Initially, this assertion suffers from the problem that it is based on a "rough estimate" that once resumed, "it is reasonable to

expect" completion of "to go" decommissioning will take more than twice as long as the one-year the licensee has estimated. Id. In support of its one-year estimate, YAEC cites its decommissioning plan schedule (Table 2.3-5) indicating that approximately one and one-half years are required for dismantlement period activities, in conjunction with a decommissioning completion percentage of sixty percent. See Mellor Reply Affidavit at 7. The intervenors proffer their completion schedule based on the assertion that decommissioning activities can be expected to proceed at the same pace as has been achieved since 1993, without offering any reason why this is so (other than it is "reasonable") or why the licensee's proposed schedule is deficient. In this context, the intervenors once again have provided nothing more than speculation, which is not sufficient to establish a genuine material factual dispute.

Even more troubling, however, is the fact that at its core their 400 person-rem "to go" dose argument is merely a variant of their "proportionality" theory that the recently-filed licensee and staff analyses have thoroughly discredited and the intervenors have made no attempt to defend. As YAEC and the staff made clear in their summary disposition submissions, a reasonably accurate collective dose assessment cannot be done by simply assuming that there is a proportionality between the occupational exposure rate

resulting from facility cleanup activities for a particular level of radioactivity and the exposure rate likely to accrue in decommissioning any additional radioactive inventory. Instead, a reasonably accurate dose assessment requires consideration of a number of factors, including component characteristics (e.g., location, size and shape, shielding, and complexity); exposure conditions (e.g., internal or external); chemical and physical nature of the radionuclide and its quantity; radionuclide decay mode and emission energy; and decommissioning operation phase. See Mellor Supplemental Affidavit at 16-18; Moeller Affidavit at 3-10; Willis Affidavit at 3-4.

The intervenors now would have us ignore all these factors and make the simplistic assumption that the "to date" decommissioning activities are essentially identical to the remaining decommissioning activities so as to provide the same yearly 160 person-rem exposure rate during the time needed to complete "to go" decommissioning.¹⁶ In the face of the uncontroverted evidence now before us demonstrating that because the "proportionality" theory fails to account for

¹⁶ Although we need not resolve the matter, YAEC asserts that the average annual dose between 1993 and 1996 (apparently without counting doses for the year 1992 the intervenors otherwise maintain should be included in the total dose figures) is, in fact, 130 person-rem rather than 160 person-rem, a figure that approximates the highest annual dose during that period. See Mellor Reply Affidavit at 7.

these factors, it lacks any reasonable scientific basis for establishing a "to go" figure, we are unwilling to do so. We thus conclude that the intervenors' "average annual dose" variation on this theme, which incorporates the same analytical shortcomings as their proportionality "theory," does not create a genuine material factual dispute about the validity of the licensee's "to go" estimate.

As we noted above, in light of the licensee's showing regarding the validity of its "to date" and "to go" DECON dose figures, even accepting the other occupational dose estimate revisions proffered by the intervenors, see supra note 12, unless the intervenors can establish a genuine material factual issue relative to their assertion that the "to go" dose estimate for Yankee Rowe decommissioning should be in the neighborhood of 400 person-rem, the licensee would be entitled to summary disposition in its favor on the substance of their contention. Because the intervenors have not done so, we grant YAEC's dispositive motion.¹⁷

¹⁷ Putting aside the question of the propriety of waiting until a reply pleading to challenge the Board's ruling on the applicable legal framework for this proceeding, because we find in the licensee's favor on the "envelope" phase of this proceeding as it was outlined in our July 31, 1996 memorandum and order, we need not consider YAEC's arguments regarding the validity of that Board determination.

III. CONCLUSION

In connection with their challenges to the licensee's "to go" decommissioning dose estimate for Yankee Rowe as described in items three, four, and five above, the intervenors have failed to show a genuine issue as to any material fact that would require an evidentiary hearing regarding the licensee's factual demonstration that occupational exposures from its modified DECON plan fall within the applicable 900 person-rem "envelope." Because those items present the only disputed factual matters that potentially are material to the intervenors' contention at issue in this proceeding, we conclude that, as a matter of law, licensee YAEC is entitled to a decision in its favor regarding the merits of that contention.

For the foregoing reasons, it is this twenty-seventh day of September 1996, ORDERED, that

1. The September 13, 1996 request of CAN/NECNP for leave to file a reply to the staff's September 9, 1996 response in support of YAEC's summary disposition motion is granted.

2. The September 17, 1996 request of CAN/NECNP for leave to file a reply to YAEC's September 13, 1996 reply is

denied; provided, however, that the September 17, 1996 pleading entitled "[CAN/NECNP] Reply to YAEC's Reply Memorandum (Summary Disposition)" and the accompanying "Second Reply Affidavit of Marvin Resnikoff, Ph.D." shall remain lodged in the docket of this proceeding.

3. The July 10, 1996 "conditional" summary disposition motion of YAEC, as renewed in its supplemental filing of September 3, 1996, is granted and, for the reasons given in this memorandum and order, a decision regarding the merits of the intervenors' admitted contention is rendered in favor of YAEC.

4. As the determination rendered herein terminates this proceeding before the Board, pursuant to 10 C.F.R. § 2.786, within fifteen days after service of this memorandum and order a party may file a petition for review with the Commission on the grounds specified in section 2.786(b)(4).

5. In accord with the Commission's ruling regarding a stay pending appeal from the Board's determination in LBP-96-2, 43 NRC 61 (1996), see CLI-96-5, 43 NRC 53, 59-60 (1996),¹⁸ any effectiveness of this memorandum and order is

¹⁸ Yesterday, the intervenors filed a motion asking that, if we granted YAEC's summary disposition motion, we enter a three-day "housekeeping" stay to permit them to file a stay request with the Commission. See [CAN/NECNP] Motion for Housekeeping Stay (Sept. 26, 1996) at 1. YAEC today has filed a pleading opposing the intervenors' request on the
(continued...)

stayed up through and including Wednesday, October 9, 1996,

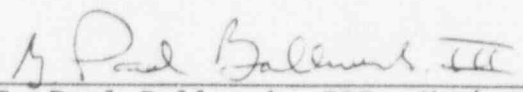
¹⁸(...continued)

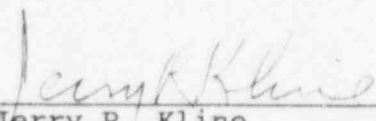
ground that, having made no attempt to demonstrate compliance with the standards set forth in 10 C.F.R. § 2.788, the intervenors' only basis for a stay is their apparent assumption there is some right to a stay pending appeal. See Response of [YAEC] to Motion for "Housekeeping Stay" (Sept. 27, 1996) at 2.


We enter the stay abc e not at the request of the intervenors, but in conformance with the Commission's previous rulings relative to this proceeding. Moreover, in entering this stay, we do so with the expectation that the intervenors will indeed file their stay request with the Commission on September 30, 1996, as they represented in their September 26 pleading, so that the period we provide gives a reasonable amount of time for responses and a Commission determination regarding their motion.

to provide the parties with an opportunity to seek from the Commission any appropriate stay pending review.¹⁹

THE ATOMIC SAFETY
AND LICENSING BOARD


G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE


Jerry R. Kline
ADMINISTRATIVE JUDGE


Thomas S. Elleman
ADMINISTRATIVE JUDGE

Rockville, Maryland

September 27, 1996

¹⁹ Copies of this memorandum and order have been sent this date to counsel for YAEC by Internet E-mail transmission, to counsel for CAN/NECNP and the Commonwealth of Massachusetts by facsimile transmission, and to staff counsel by E-mail transmission through the agency's wide area network.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

YANKEE ATOMIC ELECTRIC COMPANY

(Yankee Nuclear Power Station)

Docket No.(s) 50-029-DCOM

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB M&O (LBP 96-18) DTD 9/27 have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR Sec. 2.711.

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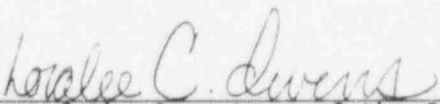
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Docket No.(s)50-029-DCOM
LB M&O (LBP 96-18) DTD 9/27

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Dated at Rockville, Md. this
27 day of September 1996


Office of the Secretary of the Commission