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Filed: September 15, 1988 DOCKETED USNRC

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

before the

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
VERMONT YANKEE NUCLEAR POWER CORPORATION	)	No. 50-271-OLA
	)	(Spent Fuel Pool Expansion)
(Vermont Yankee Nuclear Power Station)	)	

LICENSEE'S RESPONSE TO "NECNP'S MOTION TO COMPEL . . . ."

Discovery on this matter closed on August 3, 1987. *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), LBP-87-17, 25 NRC 838, 862 (1987). However, on account of the submission on June 7, 1988, by the Licensee, Vermont Yankee Nuclear Power Corporation ("Vermont Yankee"), of a proposed addition to the spent fuel pool cooling system -- an addition that would moot the admitted contention in this proceeding -- this Board granted a motion for "additional discovery concerning the revised fuel pool cooling system (which is the subject of Contention 1)." *Vermont Yankee Nuclear Power Corporation* (Vermont Yankee Nuclear Power Station), LBP-88-18, 28 NRC ____, slip opinion at 3 (July 12, 1988). On August 4, 1988, NECNP served a set of interrogatories; on August 16, 1988, Vermont Yankee served its answers. Under date of August 31, 1988, NECNP served its motion to compel.

The motion to compel raises three issues. The first issue involves the scope of Contention 1 -- and, hence, whether objections to several questions as being beyond the scope of the Contention and the special discovery ordered by the Board should be sustained. The second issue is whether NECNP can complain about an interrogatory (Interrogatory No. 5) that was fully answered, but as to which NECNP is dissatisfied with the answer. The

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third issue involves an abstruse interrogatory (Interrogatory No. 6), as to which Vermont Yankee was required to supply some definition in order to answer and, having done so, NECNP now complains that Vermont Yankee failed to divine the hidden meaning that really lay behind the question.

In all three respects, the motion to compel lacks a legal basis and should be denied.

The Scope of Contention 1.

I.

Contention 1, for which regulatory basis was laid in the so-called "single failure criterion,"[1] was proffered and admitted as a challenge to the single-train heat carrying capacity of the two-train VYNPS spent fuel pool cooling system. The theory of the contention is that, because the heat carrying capacity of the existing cooling system is inadequate to carry the worst-case heat load, Vermont Yankee would have to dedicate one of the two trains of the reactor's Residual Heat Removal system to spent fuel pool, leaving either the reactor or the pool without the required redundancy.[2] Thus, NECNP's statement of its basis for admitting the contention:

> "Should this amendment be approved, it would be necessary under certain conditions to use one train of the reactor's residual heat removal system (RHR) in addition to the spent fuel pool cooling system in order to maintain the pool water within the design limits of 150°F. . . . The heat load in the pool after a normal fuel discharge is roughly 50% greater than the design capacity of both trains of the spent fuel cooling system. While

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[1]See 10 C.F.R. Part 30, Appendix A, "Definitions and Explanations": "Fluid . . . systems are considered to be designed against an assumed single failure if neither (1) a single failure of any active *component* (assuming passive components function properly) . . . results in a loss of the capability of *the system* to perform its safety functions." (Emphasis added.) (For electrical systems, failure of any passive component (all active components functioning properly) is also a required assumption.) See *id.*, n.2.

[2]As NECNP hypothesized things, while supplemental cooling was required, the spent fuel pool would have required both trains of the spent fuel pool cooling system plus one of the trains of the RHR, and a failure of any component in any of these systems would have rendered the cooling capacity inadequate. Likewise, while supplemental cooling was required, only a single train of the RHR would have been available to the reactor in the event of a shutdown, and any single failure of any component in that remaining RHR train would have rendered the system incapable of performing residual heat removal. The contention had nothing to do with the mechanism of any failure, only the consequences of an hypothesized want of redundancy.

> the Applicants assert that the two pumps in one RHR train are single active failure proof, they have not demonstrated that there is no single failure in the RHR system components and power supplies that would not disable the single train of RHR."

"New England Coalition on Nuclear Pollution's Response to Board Order of February 27, 1987: Statement of Contentions and Standing," filed March 30, 1987, at 6-7. Admissibility of the contention was similarly grounded in the perception of it as one challenging redundancy (due to allegedly insufficient heat carrying capacity):

> "The basis for the contention was NECNP's concern that, due to the added heat load to the pool following a normal spent fuel discharge, one train of the reactor's residual heat removal (RHR) system is to be used to supplement the spent fuel pool cooling system and to keep the pool water temperature within the design limit of 150°F. According to NECNP, applicant has not established that this method of pool cooling ensures that both the pool cooling system and the RHR system are single failure proof."

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-869, 26 NRC 13, 20 (1987).

Nowhere did NECNP challenge the compliance of the existing spent fuel pool cooling system with the Commission's requirements on seismic qualification, environmental qualification or protection from turbine missiles -- criteria that, if applicable to spent fuel pools at all, are in no way dependent for their applicability on the use of RHR for supplemental cooling. Rather, the *sine qua non* of the contention, as proposed and admitted, was redundancy.

NECNP now seeks to broaden this proceeding, transcending the issue of whether the design incorporates sufficient redundancy to withstand the loss of any single component and substituting wholesale investigations of the capacity of individual components to withstand challenges of a seismic, environmental or missile-based origin. For two independently sufficient reasons, the contention may not be so broadened in the absence of the tender and proper admission of a late-filed contention under 10 C.F.R. § 2.714a.

II.

The proposed expansion of Contention 1 is impermissible because the "single failure criterion," the regulatory basis invoked for the contention, is not an incorporation by reference of all of the various equipment qualifica-

tion requirements that may be applicable to the components of a given system. Second, even if the "single failure criterion" could extend that far, that aspect of the single failure criterion that was invoked in Contention 1, as offered and admitted, did not extend so far. As offered and admitted, rather, the contention was limited to redundancy, not the qualification of the components of the redundant trains.

A. Whether the design of a system meets the "single failure criterion," on the one hand, and whether the components of the system meet such seismic, environmental and missile qualification as may be applicable, on the other hand, are entirely separate legal issues. The "single failure criterion" requires sufficient redundancy as to preserve *system* function given any failure of a *component*. As the Licensing Board in *Shoreham* stated, "[t]he purpose of the single failure analysis is to gain greater assurance of system reliability through redundancy."[3] The failure of the component is not mechanistically analyzed; it is hypothetically assumed. However, only a single failure is hypothesized; all other components are assumed to function properly, which necessarily means that they are assumed to perform their design mission, which in turn necessarily means that they are assumed to possess whatever qualifications other portions of the Commission's regulations might impose on them.

The "single failure criterion," therefore, does not seek to prevent component failure; it compensates for it. It is entirely a system design criterion. Qualification provisions such as the seismic, environmental and missile regulations, on the other hand, apply to *all* of the components in a system (to which these criteria otherwise apply). Qualification provisions do not seek system redundancy; they seek component reliability. Most fundamentally, such provisions do not establish a new design basis event. See *Petition for Emergency and Remedial Action*, CLI-78-6, 7 NRC 400 (1978). If a given system is subject to the "single failure criterion" and also to the criteria for seismic, environmental and missile qualification, then (i) each component of the system must be analyzed under latter and (ii) the design of the system must nonetheless meet the "single failure criterion." The

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[3] *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Units 1), LBP-85-18, 21 NRC 1637, 1698, *aff'd*, ALAB-824, 22 NRC 776 (1985).

criteria may all apply to a given system, but they are independent requirements, they are independently analyzed, and they raise different issues.

B. Regardless of whether a violation of a qualification requirement might also be viewed as a violation of the single failure criterion, in this case the admitted Contention 1 itself does not extend as far as the issues NECNP for the first time wishes to explore. Nowhere in its proffered contention or associated basis did NECNP assert either the necessity or the insufficiency of protection of the spent fuel pool cooling system from seismic, environmental or missile-based threats. Nowhere did NECNP contend that, in order to be acceptable, a spent fuel pool cooling system has to be seismically qualified, environmentally qualified, or missile-qualified. Such questions might have been raised in a timely fashion, but they were not. To the contrary, neither the words nor the concepts NECNP now presses appear in the admitted contention, its basis, or any of the arguments in support of its admission. As the Appeal Boards have repeatedly pointed out, an intervenor is bound by the "literal terms" of the admitted contention, and this bound is not subject to evasion by artful interpretation. *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-845, 24 NRC 220, 242 (1986).[4] To the same effect, see *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC ____, Slip Opinion at 6-7 (August 23, 1988) (for determining the scope of an admitted contention, reference is made to the words of the contention and its associated "basis" at the time of admission).[5] Simply put by the Appeal

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[4]"It is not surprising that the evidence and Licensing Board decision focus on the issue of whether training is or will be *offered* to the civilian drivers, for that is precisely the issue the inmates' contention, as admitted by the Board, unequivocally raises. . . . Whether the inmates actually intended all along to litigate the issue of the drivers' *receipt* of training, or whether they have simply seized on an issue they believe to be more likely to success on appeal, is not clear. But in either case, it is far too late at this juncture to recast their contention. As we have stated twice before in similar circumstances, intervenors are '"bound by the literal terms"' of their own contentions." (Emphasis in original; citations omitted.)

[5]. s in *Seabrook*, "[r]ather than endeavor to fit that concern within the four corners of an existing contention that relates to an entirely different potential problem . . . , the [New England] Coalition [on Nuclear Pollution] should have submitted a new contention. To be sure, the admission of such a contention at that late date would not have been automatic. Among other

Board earlier in this very case (on the issue of substituting 140°F for 150°F as the spent fuel pool temperature limit):

> "NECNP or another intervenor might well have attempted to raise this as an issue but did not."

Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-869, 26 NRC 13, 24-25 (1987).

C. That these two concepts are separate may be further demonstrated by making one final additional observation. Had NECNP genuinely intended to question seismic, environmental or missile qualification of the spent fuel pool cooling system, it might have done so without any reference to the possible use of the RHR. *If* spent fuel pool cooling systems are subject to these requirements, then they are subject to them whether or not use of supplemental cooling is periodically required. As NECNP would now interpret its contentions, everything that it proffered in its "basis" was irrelevant.[6]

III.

For these reasons, the regulatory concept with which the contention deals does not extend as far as NECNP would now take it. Moreover, however one might answer hypothetical questions about the bounds of that concept, neither Contention 1 nor its original basis mentions or refers to equipment qualification requirements. However litigable the issues NECNP would now inject into the proceeding might otherwise be, they are litigable only under timely and admitted contentions that squarely raise them.

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things, the Licensing Board would have had to determine that a balancing of the five factors that govern the disposition of late-filed contentions favored acceptance in this instance. We need not speculate here on whether a determination to that effect would have been appropriate. For, be that as it may, the divergent path the Coalition chose to follow instead was doomed to certain failure from the very outset."

[6]In its *Motion to Compel*, NECNP argues that: "it was not necessary to explore these issues in the context of Applicant's previous Spent Fuel Pool Cooling System because there was only a single train of the Spent Fuel Pool Cooling System, and thus, the single failure criterion was violated on its face." *Id.* at 9-10. Prescinding from the logic problem (*i.e.*, it wasn't necessary to raise a contention because it was obvious), NECNP is simply flat wrong that the "previous" system consisted of a single train. The VYNPS Spent Fuel Pool Cooling System has always consisted of two pumps, two heat exchangers, and a cross-connection pipe that permits the two heat exchangers to be connected to one pump. The pumps are active components; the heat exchangers are passive components.

Contention 1 is not such a contention, and the issues are therefore not a part of this contested proceeding. 10 C.F.R. § 2.760a.

As NECNP offers no defense to the interrogatories other than its view of the extended scope of Contention 1, the motion to compel should be denied.

Interrogatory No. 5.

The interrogatory read thus:

> "Please describe in detail *your schedule* for completing the design, installation, and testing of the system described in the 'Vermont Yankee Proposed Technical Specification Change for New and Spent Fuel Storage,' including but not limited to the date this system is expected to be operational."

(Emphasis added.) No objection to this interrogatory was interposed; it was answered thus:

> "All of the 'system described in the "Vermont Yankee Proposed Technical specification Change for New and Spent Fuel Storage"' of July 7, 1988 is presently (and was on June 7, 1988) designed, installed, tested and operational with the exception of the Emergency Standby Subsystem of the Spent Fuel Pool Cooling System, which will be completed designed, installed and tested prior to the storage in the spent fuel pool or more than 2,000 spent fuel assemblies, *but for which no more definite schedule now exists.*"

(Emphasis added.) There can be no complaint that the answer was non-responsive: insofar as the question called for the schedule for the installation of the additional sub-system, the answer provided was, in essence, "None." The fact that NECNP is dissatisfied with the answer is of no relevance. So long as the answer is complete, no further answer can be compelled.[7]

Interrogatory No. 6.

The interrogatory read thus:

> "To the best of your knowledge, is the system described in the 'Vermont Yankee Proposed Technical Specification Change for New and Spent Fuel Storage' similar to any used in other nuclear power plants? If yes, please identify those plants, describe their systems, and describe any differences in Vermont Yankee's proposal from those systems."

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[7]It may be that, instead of the question it posed, NECNP intended to ask Vermont Yankee to create an estimate of how long it would take to design and install the system. That, however, wasn't the question asked.

Vermont Yankee objected to so much of the interrogatory as related to the existing system.[8] As for the proposed additional sub-system, it answered the question as best it could given that the question is inherently vague because of its use of the undefined term "similar." Given the vagueness of the interrogatory, Vermont Yankee reasonably interpreted "similar" to be asking whether the technology to be employed in the additional sub-system was new, and it answered, correctly, in the negative.

NECNP now complains, and it bases its complaint on the apparent proposition that what it had in mind by the use of the term "similar" was the addition of an Emergency Standby Subsystem to enhance the heat carrying capacity of an existing spent fuel pool cooling system. *Motion to Compel* at 11. If that was the question, it was nowhere spelled out in Interrogatory No. 6; indeed, by the Interrogatory's use of a reference that describes the *entire* cooling system, a restriction to the concept of additional cooling trains was implicitly negated.

In all events, the failure lies with the imprecision and vagueness of the question, not with Vermont Yankee's attempt to answer it. A motion to compel does not lie to propound a better question after one has discovered that his original question wasn't very good.

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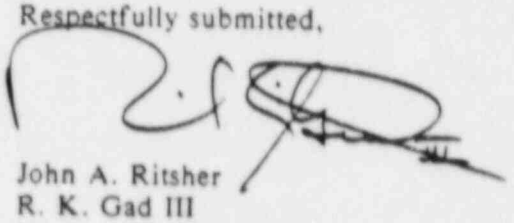
[8]Because the document to which NECNP referred described the entirety of the Spent Fuel Pool Cooling system as it would exist after the addition of the Emergency Standby Subsystem, most of what was described is the system that has been in place for 15 years, and consequently was beyond the scope of the discovery authorized by the Board's order of July 12, 1988. NECNP voices no objection with Vermont Yankee's objection.

Conclusion

For the foregoing reasons, the motion to compel should be denied.

Respectfully submitted,



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Dated: September 15, 1988.

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I, R. K. Gad III, hereby certify that on September 15, 1988, I made service of the within document in accordance with the rules of the Commission by mailing a copy thereof postage prepaid to the following:

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