UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

ORANGE COUNTY, NORTH CAROLINA, Petitioner, v. UNITED STATES NUCLEAR REGULATORY COMMISSION and the UNITED STATES OF AMERICA, Respondents	)	No. 01-1246

ORANGE COUNTY'S MOTION FOR A STAY AND EXPEDITION

Pursuant to F.R.A.P. 18 and Circuit Rule 18, the Board of Commissioners of Orange County, North Carolina ("Orange County") seeks an immediate stay of LBP-01-09, the decision by the U.S. Nuclear Regulatory Commission ("NRC" or "Commission") to permit Carolina Power & Light Co. ("CP&L") to amend its operating license and place spent nuclear power plant fuel assemblies in two previously unused storage pools (labeled "C" and "D") at the Harris nuclear power plant.[1] On July 1, 2001, CP&L will begin placing spent fuel in high-density racks in these pools, exposing residents of central North Carolina to the immediate and foreseeable threat of catastrophic and irretrievable harm from an accident in the spent fuel pools.[2] Emergency action to prevent this placement is necessary to give the Court adequate time to address Orange County's claims of legal error: that in affirming the agency's refusal to prepare

1 LBP-01-09, Memorandum and Order (Denying Request for Evidentiary Hearing and Terminating Proceeding) (March 1, 2001), review and request for stay denied, CLI-01-11, Memorandum and Order (May 10, 2001). A copy of LBP-01-09 is attached hereto as Exhibit 1. A copy of CLI-01-11 is attached hereto as Exhibit 2.

2 *See* Declaration of 31 May 2001 by Dr. Gordon Thompson in Support of Orange County's

an Environmental Impact Statement ("EIS") for this operating license amendment, the NRC applied summary evidentiary procedures in a manner that violated the hearing requirements of the Atomic Energy Act, and also violated the National Environmental Policy Act ("NEPA").

At the same time, Orange County also requests that its petition for review in this case be heard on an expedited basis, in order to protect the interests of all the parties by quickly resolving the legal issues on review.

I. STATUTORY SCHEME

A. Atomic Energy Act and Nuclear Waste Policy Act

Under Section 189(a)(1)(A) of the Atomic Energy Act of 1954, 42 U.S.C. § 2239(a)(1)(A), interested members of the public have the right to a hearing on NRC licensing actions. Throughout the hearing, the applicant bears the burden of proof. 10 C.F.R. §§ 2.732, 2.1237, 2.1326.

Most licensing hearings involving the operation of nuclear power plants are conducted according to the formal trial-type hearing requirements found in 10 C.F.R. Part 2, Subpart G. The procedures include the right of discovery, and opportunity to present direct and rebuttal testimony and cross-examine witnesses "as may be required for full and true disclosure of the facts." 10 C.F.R. §§ 2.740, 2.743(a). NRC regulations for implementation of NEPA permit the use of § 189a hearings to challenge the NRC's failure to prepare an EIS. 10 C.F.R. § 51.104(b).

In 1983, Congress passed the Nuclear Waste Policy Act ("NWPA"), 42 U.S.C. § 10101, *et seq.*, which adds a discretionary procedural step to the § 189a hearing process, intended to expedite cases involving expansion of spent nuclear fuel storage capacity at nuclear power plants. 42 U.S.C. § 10154(a). By requesting an "oral argument," any party can trigger a series of hybrid

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Stay Motion (May 31, 2001). A copy of Dr. Thompson's Declaration is attached as Exhibit 3.

steps in which the parties are allowed to conduct discovery, and then must submit sworn testimony or affidavits and written summaries of facts, data, and arguments on which they intend to rely at oral argument. *Id.*[3] The NRC must evaluate the presentations to determine whether the evidence warrants a full trial-type hearing, under the following standard:

> (1) At the conclusion of any oral argument under subsection (a) of this section, the Commission shall designate any disputed question of fact, together with any remaining questions of law, for resolution in an adjudicatory hearing only if it determines that –
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> (A) there is a genuine and substantial dispute of fact which can only be resolved with sufficient accuracy by the introduction of evidence in an adjudicatory hearing; and
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> (B) the decision of the Commission is likely to depend in whole or in part on the resolution of such dispute.

42 U.S.C. § 10154(b)(1). Although the NWPA directs the NRC to "encourage and expedite" the "effective use of available storage, and necessary additional storage," it does not permit NRC to override the basic hearing requirement in § 189a of the Atomic Energy Act, NEPA, protection of public health and safety, or other applicable laws. 42 U.S.C. § 10152(1)-(5).

NRC's implementing regulations, codified in Subpart K of 10 C.F.R. Part 2, are virtually

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3 The relevant text of 42 U.S.C. § 10154 provides as follows:

> In any Commission hearing under section 189 of the Atomic Energy Act of 1954 (42 U.S.C. 2239) on application for a license, or for an amendment of an existing license, filed after January 7, 1983, to expand the spent nuclear fuel storage capacity at the site of a civilian nuclear power reactor, through the use of high-density fuel storage racks ... the Commission shall, at the request of any party, provide an opportunity for oral argument with respect to any matter which the Commission determines to be in controversy among the parties. The oral argument shall be preceded by such discovery procedures as the rules of the Commission shall provide. The Commission shall require each party, including the Commission staff, to submit in written form, at the time of the oral argument, a summary of the facts, data, and arguments upon which such party proposes to rely that are known at such time to such party. Only facts and data in the form of sworn testimony or written submission may be relied upon by the parties during oral argument. Of the materials that may be submitted by the parties during oral argument, the Commission shall only consider those facts and data that are submitted in the form of sworn testimony or written submission.

identical to the language of § 10154(b)(1). *See* 10 C.F.R. §§ 2.1113, 2.1115. In addition, the NRC rules contain a provision that expedites discovery. 10 C.F.R. § 2.1111. The Commission has likened the "Subpart K" process to its summary disposition process, with the two distinctions that: (1) the party seeking a hearing bears a burden of demonstrating the existence of a substantial and genuine issue of material fact, and (2) the party seeking a hearing must also demonstrate that the dispute can only be resolved accurately in a hearing.[4] In a Subpart K oral argument, although the intervenor bears the burden of showing a genuine and substantial material issue of fact that should go to a hearing, the applicant bears the ultimate burden of proof, and the Staff bears the primary burden of proof on NEPA issues. LBP-01-09, slip op. at 10-12.

B. National Environmental Policy Act

NEPA is the "basic charter for protection of the environment." 40 C.F.R. § 1500.1. Its fundamental purpose is to "help public officials make decisions that are based on understanding of environmental consequences, and take decisions that protect, restore and enhance the environment." *Id.* NEPA requires federal agencies to examine the environmental consequences of their actions *before* taking those actions, in order to ensure "that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

The primary method by which NEPA ensures that its mandate is met is the requirement for preparation of an EIS which assesses the environmental impacts of the proposed action and weighs the costs and benefits of alternative actions. *Id.* The environmental impacts that must be considered in an EIS include "reasonably foreseeable" impacts which have "catastrophic

4 Final Rule, Hybrid Hearing Procedures for Expansion of Onsite Spent Fuel Storage Capacity at Civilian Nuclear Power Plants, 50 Fed. Reg. 41,662, 41,667 (October 15, 1985).

consequences, even if their probability of occurrence is low." 40 C.F.R. § 1502.22(b)(1). However, the NRC has ruled that, if the probability of a nuclear accident is so low as to be "remote and speculative," it need not be considered in an EIS.[5]

The NRC has not fixed a line of demarcation between probability that is considered "reasonably foreseeable" and probability that is considered "remote and speculative." In *Vermont Yankee,* the Commission refused to rule out an accident probability of 10^{-4} per year as remote and speculative. CLI-90-4, 31 NRC at 334. As the ASLB observed in the instant case, the Commission's ruling in *Vermont Yankee* suggests that a probability of 10^{-5} per year should not be rejected out of hand as remote and speculative. *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-00-19, 52 NRC 85, 97 (2000).

II. FACTUAL BACKGROUND

A. Harris Spent Fuel Pool Expansion

Harris is a 900 megaWatt nuclear power plant in the Research Triangle area of central North Carolina. The plant lies within 30 miles of Hillsboro, the county seat of Orange County, and within 20 miles of Chapel Hill, also in Orange County. Harris was originally designed to have four units, with four reactors and four pools for storage of spent fuel. However, only one reactor unit was built and licensed in 1983. Although CP&L partially built all four storage pools, only pools A and B were fully completed and licensed. Pools A and B are licensed for storage of 3,669 assemblies in high-density racks. The pools are used to store spent fuel from Harris, as well as spent fuel from two other CP&L plants, Brunswick and Robinson.

The license amendment that is the subject of this appeal permits CP&L to put pools C

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5 *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333, 334 (1990); *see also Vermont Yankee Nuclear Power Corp.* (Vermont Yankee

and D into service, for storage of an additional 4,715 fuel assemblies from Harris, Brunswick and Robinson. The storage racks permitted by the license amendment have an even higher density than the racks in pools A and B.[6] The amendment increases the total spent fuel storage capacity of the Harris plant to 8,343 assemblies, over a thousand more assemblies than were assumed in the original EIS that was prepared in support of the Harris operating license in 1983.[7] When the pools are filled to their full capacity, Harris will become one of the largest spent nuclear power plant fuel storage facilities in the United States.

CP&L is now in the course of completing construction on pools C and D, and intends to begin placing fuel in the pools in early July 2001. *See* CLI-01-11, slip op. at 18-19. During 2001, CP&L expects to place up to 150 fuel assemblies in the pools. *Id.*

B. Spent Fuel Pool Hazards

High-density spent fuel pool storage at Harris poses a hazard of a self-propagating exothermic oxidation reaction between fuel cladding and air or steam. *See* Thompson Report at 9-10. For simplicity, this event is described hereafter as a "pool fire." The potential for a pool fire arises when water is accidentally lost from the pool, and circulation of air or steam among the spent fuel assemblies is insufficient to prevent the fuel from igniting. Loss of pool water may result from a variety of causes, including cask drop, earthquake, equipment failures, and other causes. *Id.* Depending on the size of the fuel inventory in a pool, a pool fire could lead to a

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Nuclear Power Station), CLI-90-7, 32 NRC 129, 131 (1990).

6 The permissible center-to-center distance between pressurized water reactor ("PWR") fuel assemblies in pools A and B is 10.5 inches. For pools C and D, the permissible distance between PWR assemblies is 9 inches.

7 NUREG-0972, Final Environmental Statement Related to the Operation of Shearon Harris Nuclear Power Plant Units 1 and 2, Docket Nos. STN-50-400 and STN-50-401, Carolina Power and Light Company (October 1993). The license application discussed in the FES called for storage of up to 7,640 assemblies in the pools. *See* CP&L License Amendment Application,

massive radiological release and contamination of a large land area. *See* Thompson Declaration, par. 27.

The pool fire hazard did not exist in the early days of nuclear reactor operation, when fuel was stored in open racks at low density. Due to the open construction of the racks and the relatively wide spacing between the spent fuel assemblies in those early pools, an accidental loss of water from a pool would not have led to a fire in the fuel assemblies. Over the last two decades, as spent fuel has accumulated on reactor sites with no safe means of disposal in view, the NRC has approved pool storage of spent fuel at an ever-increasing level of density. Because of the close spacing of the fuel assemblies and the closed design of the racks, high-density storage racks pose the hazard of pool fires. *See* Thompson Declaration, pars. 24-25.

C. Procedural Background of Harris License Amendment Proceeding

The NRC administrative proceeding began in late 1998, when CP&L submitted a license amendment application. Orange County requested a hearing and was granted standing to participate as an intervenor in *Carolina Power & Light Co.* (Harris Nuclear Power Plant, Unit 1), LBP-99-25, 50 NRC 25 (1999).

On December 15, 1999, the NRC Staff issued an Environmental Assessment ("EA"), which concluded that the proposed expansion of spent fuel storage capacity of Harris would not pose a significant impact on the human environment, due to the "negligible" potential for a spent fuel pool fire.[8] Orange County filed a "contention" challenging the Staff's refusal to prepare an

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Enclosure 5 at 2 (December 23, 1998).

8 Environmental Assessment and Finding of No Significant Impact Related to Expanding the Spent Fuel Pool Storage Capacity at the Shearon Harris Nuclear Power Plant (TAC No. MA4432) at 6.

EIS.[9] The contention charged that the Staff's EA was inadequate, because it failed to take into consideration new information and changed circumstances not previously considered in any EIS, showing the foreseeable potential for a spent fuel pool fire. In support of the contention, Orange County set forth a possible scenario in which a degraded core accident with containment failure or bypass and loss of spent fuel coolant would lead to a pool fire.

The ASLB admitted the contention (which it numbered "EC-6") and invoked the Subpart K procedures, in LBP-00-19, 52 NRC at 93-98. The Board found that Orange County had established "an adequate basis to allow merits litigation on whether the following accident sequence is not 'remote and speculative' so that a further environmental analysis of the CP&L pool expansion amendment is required," with respect to the following seven-step accident scenario:

> 1) a degraded core accident;
> 2) containment failure or bypass;
> 3) loss of all spent fuel cooling and makeup systems;
> 4) extreme radiation doses precluding personnel access;
> 5) inability to restart any pool cooling or makeup systems due to extreme radiation doses;
> 6) loss of most or all pool water through evaporation; and
> 7) initiation of an exothermic oxidation reaction in pools C and D.

52 NRC at 95. Following a short (60 day) period for discovery, the Board required the parties to file written presentations and deliver oral argument to determine whether a full trial-type hearing should go forward. Orange County filed an extensive legal brief and a detailed expert report by Dr. Gordon Thompson.[10] Relying to a significant extent on information and analyses previously

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9 Orange County's Request for Late-Filed Admission of Environmental Contentions (January 31, 2000). A contention is a pleading that sets forth, with documentary support, the concerns a party wishes to litigate in a hearing. *See* 10 C.F.R. § 2.714(b).

10 *See* Detailed Summary of Facts, Data, and Arguments and Sworn Submission on which Orange County Intends to Rely at Oral Argument to Demonstrate the Existence of a Genuine and

prepared by CP&L and the NRC Staff, Dr. Thompson's report provided a methodical analysis of each step of the seven-step accident scenario posed by the ASLB. For each step, he described his factual assumptions and the source of his data, his analytical method in approaching the question of the probability of the event, and his estimate of the probability of that step in the chain of events. He also provided a minimum value of a best estimate of the probability of a Harris pool fire, in the range of 0.2×10^{-5} to 1.2×10^{-4} per year, with a point estimate of 1.6×10^{-5} per year. *See* Thompson Report, Table 5. This probability is comparable to industry and NRC estimates of the probability of a severe accident, which is generally addressed in an EIS.

The NRC Staff and CP&L also filed legal and evidentiary presentations, arguing that the probability of a severe spent fuel pool accident is too small to warrant consideration, or on the order of 10^{-7} per year. Although there were some areas of agreement between the parties, their analyses showed stark differences in the information relied on, analytical approach, and results reached. CP&L purported to have prepared a probabilistic risk assessment ("PRA"), although the report provided consisted largely of unsubstantiated conclusions. *See* Oral Argument, tr. at 467-72, 473, 475, 476-77, 482-84, 493-94, 500-01.[11] The NRC Staff's analysis primarily consisted of a set of qualitative judgments, supplemented by limited quantitative calculations. *See id.* at 474, 483, 487-88, 493-94, 500-01.

Substantial Dispute with the Licensee Regarding the Proposed Expansion of Spent Fuel Storage Capacity at the Harris Nuclear Power Plant with Respect to the Need to Prepare an Environmental Impact Statement to Address the Increased Risk of a Spent Fuel Pool Accident (November 20, 2000) ("Orange County's Summary re: Contention EC-6"); Declaration of Dr. Gordon Thompson (November 20, 2000); G. Thompson, *The Potential for a Large, Atmospheric Release of Radioactive Material From Spent Fuel Pools at the Harris Nuclear Power Plant: The Case of a Pool Release Initiated by a Severe Reactor Accident* (November 20, 2000) ("Thompson Report"). A copy of Dr. Thompson's Report is attached hereto as Exhibit 4.

11 Relevant excerpts from the transcript of the December 7, 2000, Oral Argument are attached

An oral argument was held on December 7, 2000. Because the regulations limit the basis for the ASLB's decision to written evidence, only counsel, and not experts, were permitted to participate. *See* 10 C.F.R. § 2.1113(b). In the oral argument, counsel for Orange County identified significant discrepancies between the evidence presented by Orange County and the other parties, which demonstrated the existence of genuine and substantial disputes of material fact that must be resolved in a hearing. *See* transcript of Oral Argument at 457-508, 678-84, 692-96. Counsel for Orange County also asserted that CP&L's and the Staff's technical analyses contained considerable omissions and deficiencies that would preclude the ASLB from ruling for the Staff and CP&L on the papers. *Id.*

Orange County's counsel also observed that because the parties had submitted their evidentiary presentations simultaneously on November 20, 2000, Orange County's expert had not had an opportunity to respond to the NRC Staff's or CP&L's evidence in his technical report. *Id.* at 465-66, 508-09. Orange County's counsel noted that while she could point out problems with the analyses provided by CP&L and the Staff during the oral argument, she was not qualified to provide expert testimony. *Id.* at 466. Moreover, she observed that during the oral argument, attorneys for all sides made many statements about the technical merits of the evidence, which they were not qualified to make. *Id.* at 687-88. Thus, she requested that either the Board provide for another round of affidavits or order the case to trial. *Id.* at 466, 508-09.

D. Decisions Below

On March 1, 2001, the ASLB issued LBP-01-09, which denied Orange County a full evidentiary hearing on Contention EC-6 and terminated the proceeding. The decision went through each of the seven accident steps the parties had been asked to address, and compared the

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hereto as Exhibit 5.

evidence presented by the three parties. For each of the seven steps, the ASLB ruled that Orange County had not met the NRC's standard for proceeding to an evidentiary hearing. The ASLB credited the NRC Staff's testimony on each of the accident steps, accepted the NRC Staff's calculation that the probability of the seven-step accident is "conservatively in the range of" 2.0 x 10^{-7} per year, and found that this level of probability falls within the realm of "remote and speculative" events not cognizable under NEPA. LBP-01-09, slip op. at 34-36. Although the ASLB did not rely for its decision on CP&L's analysis, the ASLB cited it approvingly throughout the decision. The ASLB either ignored or cursorily dismissed the criticisms of the Staff's and CP&L's presentations that were made by Orange County's counsel during the oral argument.

On March 16, 2001, Orange County petitioned the NRC Commissioners for review of LBP-01-09, on the grounds that the ASLB had wrongfully denied the County a hearing on its factual disputes with the NRC Staff and CP&L.[12] At the same time, Orange County also requested the Commission to stay LBP-01-09 pending review.[13] The Commission denied both the petition for review and the stay motion in CLI-01-11. The Commission found that the ASLB had reasonably weighed the evidence presented by the parties and resolved their factual disputes, and therefore declined to take review of the ASLB's decision or disturb the ASLB's finding that the likelihood of a spent fuel pool fire is extremely low. *Id.*, slip op. at 13. The Commission also declined to rule on the question of whether, if it had accepted Orange County's evidence, a probability estimate of 10^{-5} per year requires preparation of an EIS. *Id.*, slip op. at 12, note 8. In addition, given its conclusion that a spent fuel pool fire is improbable, the Commission

12 Orange County's Petition for Review of LBP-00-12, LBP-00-19, and LBP-01-09 (March 16, 2001). Orange County also made other claims which are not made in this stay motion, but which are not waived.

13 Orange County's Request for Emergency Stay of LBP-01-09 (March 16, 2001).

concluded that Orange County had failed to demonstrate irreparable harm. *Id.*, slip op. at 19.

III. ORANGE COUNTY SATISFIES THE REQUIREMENTS FOR A STAY.

As demonstrated below, under a balancing of the four factors relevant to issuance of a stay – likelihood of success on the merits, likelihood of irreparable harm, harm to other parties, and public interest -- Orange County is entitled to a stay of LBP-01-09. *See* Circuit Rule 18.

A. Orange County Has a Strong Likelihood of Prevailing on the Merits.

By failing to provide Orange County with any opportunity to rebut the evidence submitted by the NRC Staff and CP&L – the parties with the burden of proof – the NRC violated Orange County's right to a hearing under § 189a of the Atomic Energy Act, as well as NEPA. Accordingly, the Court must overturn LBP-01-09 because it was "arbitrary, capricious, an abuse of discretion, [and] not otherwise in accordance with the law." 5 U.S.C. § 706(2)(A).

1. The NRC Denied Orange County a Meaningful Hearing.

Under Section 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a), an interested member of the public is entitled to a hearing on a request for a nuclear power plant license amendment. That hearing must provide for "meaningful" public participation. *Union of Concerned Scientists v. NRC,* 735 F.2d 1437, 1446 (D.C. Cir.1984), *cert. denied*, 469 U.S. 1132 (1985). In legislating special procedures for spent fuel pool expansion cases, Congress showed no intent to eliminate the § 189a hearing requirement; nor did the NRC express any such intent in promulgating the Subpart K procedures. Instead, these procedures were intended simply to expedite the § 189a hearing process. In this case, by crediting the NRC staff's evidence, without providing Orange County any opportunity for factual rebuttal, the ASLB applied the Subpart K procedures in a manner that deprived Orange County of a meaningful hearing, in two respects. First, it unlawfully shifted the burden of proof from the NRC Staff and CP&L to Orange County.

Second, it violated fundamental principles of fairness in agency proceedings.

Throughout a § 189a hearing on a NEPA issue, the applicant and the NRC Staff must carry their burden of proof.[14] Consequently, in a Subpart K proceeding, the ASLB must allocate the burden of proof to the Staff and applicant in determining whether genuine and substantial factual disputes between the parties can be "resolved with sufficient accuracy" without resort to a full trial-type hearing. 42 U.S.C. § 10154(b)(1)(A); 10 C.F.R. § 2.1115(b). Moreover, the ASLB must give the parties a fair opportunity to be heard. The opportunity for a hearing cannot be considered meaningful or fair, nor can genuine and substantial disputes be considered to have been resolved accurately, where the evidence of the parties bearing the burden of proof is accepted without providing the intervenor any opportunity to provide evidence in rebuttal.[15]

In the Subpart K proceeding below, the ASLB applied the standard for determining

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14 *See* discussion at page 2, *supra.* As the ASLB recognized in LBP-01-09, slip op. at 12:

> Once BCOC [Orange County] crossed the admissibility threshold relative to its accident sequence contention, the ultimate burden in this Subpart K proceeding then rested with the proponent of the NEPA document – the staff (and the applicant to the degree it becomes a proponent of the staff's EIS-related action) – to establish the validity of that determination on the question of whether the accident sequence is an EIS-preparation trigger.

15 The relationship between a fair hearing and the opportunity to present rebuttal evidence was recognized in *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-84-36, 20 NRC 928, 930 (1984), *citing Green v. McElroy,* 360 U.S. 474, 495-96 (1959) ("Fundamental principles of fairness require that all parties be aware of the content of information presented to the Board, be given the opportunity to test its reliability or truthfulness, and be given the opportunity to present rebuttal testimony if deemed necessary"); and *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-864, 25 NRC 417, 427 (1987) (ruling that the lack of an opportunity for prepared rebuttal testimony in an expedited hearing with simultaneous filing deadlines "patently and seriously intrudes upon the intervenors' hearing rights"). Unlike the instant case, those cases were decided under the formal hearing requirements of 10 C.F.R. Part 2, Subpart G, which explicitly require the opportunity for presentation of rebuttal evidence "as needed for a full and true disclosure of the facts." *See* 10 C.F.R. § 2.743(a). Nevertheless, it is important to recognize that the decisions turn on concepts

whether the parties' disputes should go to a formal trial-type hearing in such a way as to completely deprive Orange County of any opportunity to engage, on an evidentiary level, the substantive merit of the NRC Staff's and CP&L's case. As required by the regulations, all parties were required to file their evidentiary presentations simultaneously on November 20, 2000. Due to the simultaneous schedule for filing evidence, Orange County's expert, Dr. Thompson, could not respond in his Declaration or Report to the evidence proffered by the NRC Staff and CP&L. Although counsel for Orange County used the oral argument to methodically identify areas in which the County disputed the adequacy of CP&L's and the Staff's submissions to justify the Staff's refusal to prepare an EIS, and repeatedly requested an opportunity to present evidence controverting the presentations by CP&L and the Staff, the ASLB completely ignored these arguments in LBP-01-09. Instead, the ASLB dismissed Orange County's entire case, based on the uncritical acceptance of untested evidence proffered by the NRC Staff.

The deficiencies that were pointed out by counsel for Orange County at the Oral Argument and were ignored by the ASLB were many and significant. As discussed above at page 9, the NRC's analysis unscientifically combined quantitative calculations and qualitative judgments, without clearly delineating between the two; thus it was impossible to verify the NRC's assumptions. CP&L's technical report, while voluminous, omitted key data needed to evaluate the accuracy of CP&L's assertions regarding the probability of various steps in the accident sequence. *Id.* These deficiencies not only made it impossible to rely on the Staff's and CP&L's evidence, but prevented any independent party from performing a peer review of the quality of their work. *See* Oral Argument, tr. at 499-501. Moreover, neither the NRC staff nor

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of fairness rather than mere enforcement of the regulations.

CP&L had provided documentation of their alleged peer reviews.[16]

Counsel for Orange County also pointed out numerous specific instances in which the NRC Staff or CP&L made incorrect assumptions or calculations that fatally undermined the reliability of their probability calculations, including failure to take into account the characteristics of Harris reactor fuel in modeling radiological releases (tr. at 475), incorrectly claiming to have introduced a conservatism into a key calculation regarding the likelihood of containment bypass (tr. at 474-75), using an inappropriately simplistic and non-conservative model for onsite deposition of radioactive material (tr. at 477-79), and failure to provide any calculations regarding the probability that cooling systems could be restored in the aftermath of an accident (tr. at 482-84). Thus, Orange County's counsel requested a hearing or some other "further process" in which to conduct a "comprehensive evaluation of the adequacy of the CP&L study and the NRC study" and present "expert criticism." *Id.* at 466, 508-510. The ASLB ignored or cursorily dismissed these arguments, instead broadly approving the NRC Staff's analysis. *See* LBP-01-09, slip op. at 20-21, 23, 26, 29-31, 33.

In CLI-01-11, the Commission argues that given the ASLB's "technically oriented" nature, it is an appropriate exercise of discretion for the ASLB to compare competing judgments by technical experts and resolve disputes "on the papers," without resort to a hearing. CLI-01-11, slip op. at 9. Thus, CLI-01-11 approves the many aspects of LBP-01-09 in which the ASLB judged the comparative credibility (LBP-01-09, slip op. at 21, 26, 31); reasonableness (*id.* at 23, 26, 31, 33); persuasiveness (*id.* at 23); and complexity (*id.* at 20, 26) of the parties' analyses. *Id.*,

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16 *Id.*, tr. at 499-500. The ASLB ignored these criticisms, unquestioningly approving the quality of the Staff's and CP&L's analyses and noting that they had been subjected to "peer review." LBP-01-09, slip op. at 38. CLI-01-11 also unquestioningly approves the ASLB's conclusion. CLI-01-11, slip op. at 13.

slip op. at 11-13. However, the Commission overlooks the fact that the ASLB had no "papers" before it that could have provided an evidentiary basis for judging the comparative quality of the parties' presentations with any reasonable degree of accuracy or fairness, or with any assurance that the Staff had carried its burden of proof.[17] Moreover, whatever assumptions informed the Board's judgments about the reasonableness of the Staff's presentation were necessarily outside the record of the case. Under the Subpart K rules and NRC precedents governing adjudications, however, the ASLB was confined to assessing only those facts in the parties' sworn testimony, and was not permitted to rely on extra-record evidence. *See* 10 C.F.R. § 2.1113(b), *Tennessee Valley Authority* (Hartsville Nuclear Plant, Units 1A, 2A, 1B, and 2B), ALAB-463, 7 NRC 341, 352 (1978).

In summary, the ASLB was not entitled to resolve the parties' genuine, significant and material disputes regarding the probability of a spent fuel pool fire in favor of the NRC Staff, without giving Orange County an opportunity to rebut that evidence. The ASLB should have sent the disputed issues to a hearing, or at the very least it should have provided for another round of evidentiary presentations in which the parties could respond to each others' initial presentations. It did neither. By failing to provide an opportunity for rebuttal in any form whatsoever, and by disregarding Orange County's well-supported requests for rebuttal during the Oral Argument, the ASLB committed clear and reversible error.[18]

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17 In contrast, in materials licensing cases such as the ones cited by the Commission in CLI-01-1 [slip op. at 9], where factual disputes are "decided 'on the papers,' with no live evidentiary hearing," the regulations permit the filing of requests to submit rebuttal testimony. *See* 10 C.F.R. § 2.1233(d); *Curators of the University of Missouri*, CLI-95-01, 41 NRC 71, 116 (1995).

18 In CLI-01-11, the Commission asserts that there would be no point to a hearing, since "Orange County apparently intends merely to reiterate its critique of the probabilistic risk assessment of others (the NRC Staff and CP&L), but not to offer a fresh analysis of its own." *Id.*, slip op. at 14, *citing* Oral Argument, tr. at 479-81. This statement suggests that Orange

2. The NRC violated NEPA.

Under the Commission's regulations, a party who wishes to enforce the requirements of NEPA against the NRC in a licensing proceeding may do so through the channels of the NRC hearing process. *See* 10 C.F.R. § 51.104(b). In this case, Orange County successfully gained admission of a contention challenging the adequacy of the justification given in the NRC Staff's EA for its refusal to prepare a full-fledged EIS for the Harris spent fuel pool expansion proposal. As discussed above, this placed a burden on the NRC Staff to justify its refusal to prepare an EIS. However, the ASLB unlawfully shifted the burden of proof from the NRC Staff to Orange County, by approving the Staff's refusal to prepare an EIS, based on NRC Staff evidence that was untested by any form of rebuttal evidence. The Commission endorsed the ASLB's decision, and improperly suggested that Orange County should have provided proof of the accident's reasonable probability in order to obtain a hearing.[19] By shifting the burden of proof to Orange

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County had already received an opportunity to rebut the evidence submitted by CP&L and the NRC Staff. To the contrary, the only opportunity Orange County received to respond to the Staff's and CP&L's factual submissions consisted of an oral argument in which only Orange County's attorney was permitted to speak. As Orange County's counsel told the ASLB, she was not qualified to give expert testimony on the infirmities of the other parties' studies, and could only identify those deficiencies in the broadest terms, in order to highlight the existence of disputed facts. *See, e.g.*, transcript of Oral Argument at 508, 687-88. Thus, Orange County's counsel requested further opportunity to present "expert criticism." *Id.*, tr. at 509-510.

Moreover, by suggesting that a hearing would not be worthwhile unless Orange County could present its own PRA, the Commission improperly attempts to shift the burden of proof to Orange County. As Orange County argued to the ASLB, Orange County was not required to prepare its own PRA in order to prove that a pool fire is a credible accident. Rather, preparation of a PRA that is sufficient to rule out an EIS on the potential for a spent fuel pool fire is the appropriate responsibility of the government, which has the burden of proof. Oral Argument, tr. at 480-81, 509. In any event, the Commission erred in stating that Orange County refused to provide any further independent analysis of the probability of a pool fire. *See* Oral Argument, tr. at 481.

19 *See* CLI-01-11, slip op. at 13 ("On behalf of Orange County, Dr. Thompson made suggestions regarding steps he thought should be taken to improve the analytical work done by the staff and CP&L; however, his own analysis did not take these steps.") The Commission both

County, the NRC failed to meet its obligations under NEPA.

B. Orange County Will Suffer Immediate And Irreparable Harm.

As discussed in Dr. Thompson's Declaration at pars. 3 and 47, the potential for a spent fuel pool fire is reasonably foreseeable. The ASLB's determination that the likelihood of a pool fire is "remote and speculative" is based on misunderstanding and mischaracterization of Dr. Thompson's work, and inappropriate reliance on inadequate analyses prepared by the NRC Staff. *Id.*, pars. 3, 53-87. Because of the many errors made by the Licensing Board in LBP-01-09, it significantly understates the potential for a severe accident in the Harris spent fuel pools. *Id.*

Moreover, the threat of a pool fire is immediate: CP&L proposes to begin placing fuel in pools C and D in early July. *See* CLI-01-11, slip op. at 19. During the first year, CP&L plans to put only about 150 assemblies in pools C and D. *Id.* If this fuel burns, however, it could yield a significant release of radioactive material to the environment. *See* Thompson Declaration, par. 95. Moreover, if a fire starts in pools A and B, the fuel in pools C and D is virtually certain to catch fire as well. Thus, despite the fact that the inventory of spent fuel in pools C and D will be relatively low during the first year, a fire in pools C and D is as likely as in pools A and B (*i.e.*, on the order of 10^{-5}, a reasonably foreseeable degree of probability). *See* Thompson Declaration, par. 94.

In addition, the consequences of a pool fire would be apocalyptic. *See* Thompson Declaration, pars. 27, 89. A radioactive release from the Harris pools could render uninhabitable

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mischaracterizes Dr. Thompson's work and puts an improper burden on Orange County. In his report, Dr. Thompson set forth the minimum requirements for an analysis that would be adequate to support the NRC Staff's refusal to prepare an EIS. *See* Thompson Report at 18-23. As counsel for Orange County stated at the Oral Argument, Orange County did not have the financial resources, nor did it carry the burden, of such a significant undertaking. *Id.*, tr. at 480-81, 509-10.

an area the size of the State of North Carolina, for many years.[20] *Id.* Even where the likelihood of an accident is small, a stay may be warranted where "the potential severity is enormous" and "the injuries which could result are indisputably irreparable." *State of Ohio ex rel. Celebrezze v. NRC,* 812 F.2d 288, 291 (6th Cir. 1987).

Moreover, the Court should not sanction the imposition of significant environmental risks before it has been fairly determined whether an EIS should be prepared that examines the impacts of expanded pool storage, as well as alternatives that would mitigate those impacts. The purpose of NEPA is defeated when environmental impacts are allowed to occur *before* an EIS has been prepared. *Robertson v. Methow Valley Citizen Council*, 490 U.S. at 349.

C. Other Factors Favor Issuance of a Stay.

The NRC will not be affected by the issuance of a stay. CP&L will be prevented from moving spent fuel into pools C and D from the Brunswick and Robinson plants, where it claims to have run out of storage space. In weighing the harm to CP&L of granting a stay, the Court should take into account the fact that CP&L has known for over two years that Orange County opposed the significant expansion of spent fuel storage pool capacity at Harris without preparation of an EIS, and had the opportunity to make contingency plans for storage of fuel at Brunswick and Robinson, including provision for dry storage. CP&L made no such plans, and instead chose to count on the unconditional granting of a license amendment for the Harris plant. The residents of Orange County should not be required to pay the price of any harm claimed by CP&L as a result of its poor planning. In any event, Orange County requests that the Court

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20 The effects of an offsite release from the Harris pools would be even more severe than the effects of the accident at the Chernobyl nuclear plant in Russia, which contaminated many square miles of land surrounding the plant. Thompson Declaration, par. 27. The previous occurrence of the Chernobyl accident also shows that a large-scale radiological release has happened in the

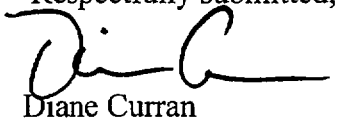
impose an expedited briefing schedule in order to minimize any harm to CP&L caused by the imposition of a stay.

Finally, the public interest favors a stay. The "most crucial" public interest concern is public safety. *State of Ohio ex rel. Celebrezze,* 812 F.2d at 292. Here, there is a strong public interest in resolving Orange County's concerns about the potential for a catastrophic pool accident before proceeding with the placement of spent fuel in the Harris pools. Moreover, due to the far-reaching geographical scope of a radiological release from the Harris pools, the members of the public affected by an accident in the Harris pools include not just the citizens of Orange County, but the population of the entire state of North Carolina and beyond. It is also in the public interest to be sure the NRC only increases spent fuel storage capacity in conformance with the requirements of NEPA, which require the NRC to investigate all reasonable alternatives for eliminating or mitigating the environmental impacts of major actions that have a significant impact on the human environment.

IV. CONCLUSION

For the foregoing reasons, the Court should stay the effectiveness of LBP-01-09, pending its consideration of this appeal. Orange County also seeks an expedited briefing schedule.

Respectfully submitted,



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past, and is likely to occur again. *State of Ohio ex rel. Celebrezze v. NRC*, 812 F.2d at 291.

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

ORANGE COUNTY, NORTH CAROLINA, Petitioner, v. UNITED STATES NUCLEAR REGULATORY COMMISSION and the UNITED STATES OF AMERICA, Respondents	No. 01-1246

CERTIFICATE OF SERVICE

I certify that on June 1, 2001, copies of the foregoing Motion for Stay and Expedition were served on the following by hand delivery:

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