November 16, 1998

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket Nos. 50-269-LR
	)	50-270-LR
DUKE ENERGY CORPORATION	)	50-287-LR
	)	
	)	
(Oconee Nuclear Station,	)	
Unit Nos. 1, 2, and 3)	)	

NRC STAFF'S RESPONSE TO
PETITIONER'S FIRST SUPPLEMENTAL FILING

INTRODUCTION

Pursuant to 10 C.F.R. § 2.714(c) and the Atomic Safety and Licensing Board's Order of October 1, 1998, the staff of the Nuclear Regulatory Commission (Staff) hereby responds to "Petitioner's First Supplemental Filing" (Supplement) filed by Norman "Buzz" Williams, William "Butch" Clay, W.S. Lesan, and the Chattooga River Watershed Coalition (CRWC) (collectively referred to as Petitioners). For the reasons set forth below, the individual Petitioners and CRWC, as representative of them, have established standing to intervene in this proceeding. The Petitioners, however, fail to offer an admissible contention, as required by 10 C.F.R. § 2.714(b). Accordingly, their Petition for Leave to Intervene should be denied. In addition, the Petitioners' request for a stay should also be denied.

BACKGROUND

On July 6, 1998, the Duke Energy Corporation (Duke Energy or Applicant) submitted an application pursuant to 10 C.F.R. Part 54 to renew the operating licenses for

the Oconee Nuclear Station (Oconee), Units 1, 2, and 3 (Application). On August 11, 1998, pursuant to 10 C.F.R. §§ 54.27 and 2.105, the Staff published a notice of opportunity for a hearing on the application (Notice). "Duke Energy Corporation, Oconee Nuclear Station Units 1, 2, and 3; Notice of Acceptance for Docketing of the Application and Notice of Opportunity for a Hearing Regarding Renewal of Licenses Nos. DPR-38, DPR-47, and DPR-55 for an Additional 20-Year Period," 63 Fed. Reg. 42,885 (1998).

On September 8, 1998, the Petitioners filed a letter requesting leave to intervene (Petition). On September 18, 1998, the Atomic Safety and Licensing Board (Board) designated to preside over this proceeding issued a Memorandum and Order. "Memorandum and Order," (Sept. 18, 1998) (Prehearing Order). In the Prehearing Order, the Board provided the Petitioners until October 19, 1998 to supplement their Petition with all their proffered contentions. *Id.* at 3. The Applicant and Staff were provided until October 30, 1998 in which to respond to the proffered contentions. *Id.*

The Prehearing Order also provided that the Petitioners could file an amendment to "address any shortcomings in their initial pleading in addressing the requirements of 10 C.F.R. § 2.714(a)(2)" no later than September 30, 1998.[1] *Id.* at 2. On September 30, 1998, the Petitioners filed an amendment with an attachment to their Petition providing further information regarding standing (Amendment). On October 9, 1998, in accordance with the Board's Prehearing Order, the Staff filed its response to the Amendment. "NRC

---

[1] On September 28, 1998, the Petitioners requested a 30-day extension of time in which to file an amendment. The Board subsequently denied this request, but provided the Petitioners an additional 11 days, until October 30, 1998, to furnish their contentions. Order (Ruling on Request for Extension of Time), October 1, 1998 at 3 (Order). In addition, the Board provided the Petitioners with another opportunity to address standing. *Id.* at 3 n.2.

Staff's Answer to the Petition for Leave to Intervene Filed by Norman "Buzz" Williams, William "Butch" Clay, W.S. Lesan, and the Chattooga River Watershed Coalition," (Staff's Answer).

On October 30, 1998, the Petitioners filed their Supplement. In their Supplement, the Petitioners provide additional information relative to their standing to intervene in this proceeding and also proffer four contentions.[2] The Staff, below, first addresses the Petitioners' standing arguments and agrees that they have established standing to intervene in this proceeding. As discussed below, however, the Petitioners' contentions fail to meet 10 C.F.R. § 2.714(b)(2) of the Commission's regulations. The Petitioners' Petition must, therefore, be denied.

DISCUSSION

A. The Petitioners Have Established Standing

The requirements for standing, as well as the Petitioners' earlier failure to meet those requirements, were discussed in detail in the Staff's Answer and will not be repeated here. *See* Staff's Answer at 3-10. It appears that the Declarations filed by the three individual Petitioners on October 30, 1998, have sufficiently addressed these deficiencies. *See*

---

[2] The Petitioners also address the Staff's response to the issue regarding notice first raised by the Petitioners in their Amendment. *See* Supplement at 2. *See also* Staff Answer at 12-14. In their Supplement, the Petitioners contend that due to the large amount of information related to this proceeding, the current expedited timelines prevent meaningful public review. Supplement at 2. Much of the information the Petitioners reference, however, is beyond the scope of license renewal and does not relate to the renewal application. For example, the Petitioners reference information related to plant operations such as the Oconee Nuclear Station Emergency Plan, or information regarding radioactive effluents released during 1979. *See id.* Thus, the Petitioners' assertion that the current timelines compromise meaningful public review is without merit.

Declaration of William "Butch" Clay (Clay Declaration); Declaration of William Steven "W.S." Lesan (Lesan Declaration); Declaration of Norman "Buzz" Williams (Williams Declaration) attached to "Petitioner's First Supplemental Filing." Therefore, as discussed below, the individuals and CRWC have established standing.

The three individual Petitioners' declarations provide sufficient information to support their individual standing. The individual Petitioners have identified an interest in that they live, work, recreate and travel near the Oconee facility.[3] Clay Declaration at ¶ 4; Lesan Declaration at ¶ 4; Williams Declaration at ¶ 3. The individual Petitioners express a concern that if an accident occurred during the renewal term, this interest would be adversely affected. *See* Clay Declaration at ¶ 5; Lesan Declaration at ¶ 5; Williams Declaration at ¶ 11. Further, the individual Petitioners imply that they are concerned that such an accident could occur because of the effects of aging and embrittlement of the reactor vessel and containment, issues within the scope of license renewal.[4] *Id.* Thus, it appears that the three individuals have alleged an injury fairly traceable to the proposed action and have met the

---

[3] Each Petitioner also states that he "breath[es] the air, drink[s] water and eat[s] food produced within 20 miles" of the Oconee Station. These assertions, however, are too remote and generalized to provide a basis for standing to intervene. *See Philadelphia Elec. Co.* (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1449 (1982); *see also Boston Edison Co.* (Pilgrim Nuclear Power Station), LBP-85-24, 22 NRC 97, 98 (1985).

[4] The Petitioners also express other concerns that are outside the scope of the license renewal proceeding. As stated in the Staff's Answer, issues relating to storage and management of spent fuel on site as well as availability of other off-site storage sites are outside the scope of this proceeding. *See* Staff's Answer at 12. The Petitioners also raise concerns regarding the Applicant's plan to defend against terrorist action and the structural integrity of the facilities to withstand earthquakes and tornados. Because these concerns are also part of the Applicant's current licensing basis, they too are outside the scope of license renewal as they are part of the current licensing basis. *Id.*

requirements to establish individual standing. *See Georgia Institute of Tech.* (Georgia Tech Research Reactor, Atlanta Georgia), CLI-95-12, 42 NRC 111, 115 (1995) (stating that petition should be construed in light favorable to petitioner to determine standing).

CRWC has established representational standing as well. Each individual Petitioner has authorized CRWC to represent his interest in this proceeding. Also, the interests of the individual members in the Chattooga River watershed are germane to the organization's purpose of protecting the watershed. *See* Williams Declaration at ¶ 8. Additionally, as stated above, the individual members have established standing in their own right. Thus, CRWC has established representational standing.

CRWC has not, however, established organizational standing. In order for CRWC to achieve organizational standing, it must define an injury to its organizational interest that is traceable to the proposed license renewal action.[5] *See* Staff's Answer at 8. CRWC has not done so. CRWC states that part of its organizational purpose is to, *inter alia*, "protect and promote the natural ecological integrity of the Chattooga River watershed ecosystem." Willams Declaration at ¶ 8. CRWC, however, fails to establish how this organizational interest could be adversely affected by the proposed license renewal action. In addition, CRWC asserts that its organizational interests in educating the public and promoting choice for the public based on scientific data would be impacted by the renewed license because staff members of CRWC could be injured by a release of radioactivity, rendering them

---

[5] CRWC also needed to provide evidence that it authorized Petitioner Williams to seek intervention. *See* Staff's Answer at 8. In Petitioner Williams' Declaration, he affirms that he is the Executive Director of CRWC and that CRWC's Board of Directors authorized him to seek intervention in these proceedings on CRWC's behalf. Williams Declaration at ¶ 5-7

unable to carry out these missions. Williams Declaration at ¶ 8. The interest of providing information to the public is insufficient to support standing, as are other generalized interests. *See Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994). Since CRWC has not set forth an organizational interest that is traceable to the proposed license renewal action, it has not established organizational standing.

Although the Petitioners have established standing to intervene in this proceeding, they still must submit at least one admissible contention. 10 C.F.R § 2.714(b)(1) . As set forth below, none of the Petitioners' proposed contentions meet the requirements of 10 C.F.R. § 2.714(b). Their Petition must, therefore, be denied.

B. None of the Petitioners' Contentions Meet the Requirements of 10 C.F.R. § 2.714(b)

1. Legal Standards

The requirements for an admissible contention are set forth at 10 C.F.R. § 2.714. In addition to demonstrating the required interest, a petitioner must submit at least one valid contention that meets the requirements of 10 C.F.R. § 2.714 in order to be permitted to participate in a licensing proceeding as a party. 10 C.F.R. § 2.714(b)(1); *Yankee Atomic Electric Company* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 248 (1996).

For a contention to be admitted, it must meet the standards set forth in 10 C.F.R. § 2.714(b)(2), which provide that each contention must consist of "a specific statement of the issue of law or fact to be raised or controverted" and must be accompanied by:

> (i) A brief explanation of the bases of the contention;
>
> (ii) A concise statement of the alleged facts or expert opinion which supports the contention . . . together with references to those specific sources and

> documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion;
>
> (iii) Sufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact.

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

Pursuant to section 2.714, a petitioner must provide a "clear statement as to the basis for the contentions and the submission of . . . supporting information and references to specific documents and sources that establish the validity of the contention." *Palo Verde*, CLI-91-12, 34 NRC at 155-56. The purpose of the basis requirement of section 2.714(b)(2) is (1) to assure that at the pleading stage the hearing process is not improperly invoked, (2) to assure that the contention raises a matter appropriate for adjudication in a particular proceeding; and (3) to put other parties sufficiently on notice of the issues so that they will know generally what they will have to defend or oppose. *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974). Further, the petitioner has the obligation to formulate the contention and provide the information necessary to satisfy the basis requirement of 10 C.F.R. § 2.714(b)(2). *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-98-17, slip op. at 2-3

(Sept. 15, 1998); *See also Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998).

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

> The scope of this proceeding is limited to a review of the plant structures and components that will require an aging management review for the period of extended operations and the plant's systems structures and components that are subject to an evaluation of time-limited aging analyses. In addition, review of environmental issues is limited in accordance with 10 C.F.R. § 51.71(d) and 51.95(d).

Oconee, CLI-98-17 at 2.

2. Petitioners' Contentions

As demonstrated below, none of the four contentions proffered by the Petitioners meet the above standards. The Petitioners' Petition should, therefore, be denied.

Contention # 1:

> As a matter of law and fact, Duke Energy Corporation's Application for Renewed Operating License for Oconee Nuclear Station Units 1, 2 and 3

> (hereafter referred to as "Application") is incomplete, and should be withdrawn and/or summarily dismissed.

Supplement at 3. As a basis for this first contention, the Petitioners note that the Application references several Babcock & Wilcox Owners Group (B&WOG) topical reports and one report submitted by the Applicant which are currently under review by the Staff. *Id.* The Petitioners, therefore, contend that the incomplete status of the final disposition of the B&WOG and the Applicant's reports renders the Application incomplete. *Id.* The Petitioners also assert, as part of this basis, that the incompleteness of the Staff's review of these reports deprives them of access to critical information. As a second basis for this contention the Petitioners reference the Staff's requests for additional information (RAI). *Id.*

The Petitioners' first contention is inadmissible because it does not demonstrate that a genuine dispute exists with the applicant on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). The Petitioners claim that the Application is incomplete because the Staff has not completed its review of several topical reports incorporated by reference into the Application. *Id.* Since it is the topical reports themselves, which are publically available, that have been incorporated into the Application,[6] and not the Staff's review of the reports, the Petitioners fail to provide sufficient information to demonstrate that the Application is incomplete. *See* 10 C.F.R. § 2.714(b)(2)(iii). Furthermore, the Staff's review of these reports, which will be completed before the Staff decides whether to issue a renewed license, is not at issue in this proceeding, rather the focus of the proceeding must be on the

---

[6] The Applicant's incorporation by reference of these reports is in accordance with 10 C.F.R. 54.17(e).

application at issue. *See The Curators of the University of Missouri*, CLI-95-8, 41 NRC 386, 395-96 (1995). Thus, whether the Staff has completed its review of these reports is not relevant to whether the Application should be granted.

The Petitioners also assert that the incompleteness of the Staff's review of the topical reports inhibits their ability to prepare for the hearing and "other adjudicatory proceedings" within the projected schedule and is an impediment to "the public's right to know." Supplement at 3. The Petitioners, however, do not explain how the fact that the Staff's review of the reports inhibit their ability to prepare for a hearing when the focus of this proceeding is on the Application and not the Staff's review. *See id.* The Petitioners' first step in preparation for a hearing is to formulate contentions based on its review of these reports.[7] *See* 10 C.F.R. § 2.714(b)(2). *See also Duke Power Co.* (Catawba Nuclear Station Units 1 & 2), CLI-83-19, 17 NRC 1041, 1045 (1983). Since these reports are available for the Petitioners' review, they have failed to provide sufficient information demonstrating that they are unable to prepare for a hearing. *See* 10 C.F.R. § 2.714(b)(2)(iii).

The Petitioners also provide, as a basis for Contention # 1, each of the RAIs filed or forthcoming from the Staff to the Applicant and "all of the unresolved safety-related matters identified in the attached documents (Attachment 6)." Supplement at 3. Attachment 6 is comprised of two documents. The first is a meeting summary of a public meeting between the Staff and the Applicant related to renewal activities for Oconee. The meeting summary discusses the Staff's RAIs regarding the Oconee reactor building license renewal evaluation

---

[7] Of course, if, after the Staff completes its review of these reports, new issues emerge, the Petitioners may seek to file contentions in accordance with 10 C.F.R. § 2.714(a)(1).

and the Applicant's responses to them. *See* Attachment 6 to Supplement. The second document is a printout from the NRC public document room (PDR) which contains a list of correspondence forwarding RAIs to Duke Energy. *See id.* The mere reference to the Staff's RAIs, however, is insufficient to establish that a genuine dispute exists with the Applicant on a material issue of law or fact. *See Sacramento Municipal Utility Dist.* (Rancho Seco, Nuclear Generating Station), CLI-93-3, 37 NRC 135, 146-147 (1993).[8] The Petitioners have an affirmative obligation to review all information then available to them and independently derive contentions in accordance with 10 C.F.R. § 2.714(b)(2). *See Catawba*, CLI-83-19, 17 NRC at 1045. Moreover, the mere reference to the Staff's RAIs is too vague to satisfy the specificity requirement of 10 C.F.R. § 2.714(b)(2). This basis, therefore, does not support the admission of Contention # 1.

Thus, as set forth above, none of the bases demonstrate that a genuine dispute exists with the Applicant on a material law or fact. 10 C.F.R. § 2.714(b)(2)(iii). Since the Petitioners have failed to provide an adequate basis for Contention #1, it should be dismissed. 10 C.F.R. § 2.714(b)(2).

Contention # 2:

> As a matter of law and fact, Duke Energy Corporation's Application for Renewed Operating License for Oconee Nuclear Station Units 1, 2 and 3 does not meet the aging management and other safety-related requirements mandated by law and NRC regulations, and therefore should be withdrawn and/or summarily dismissed.

---

[8] In addition, the printout from the PDR also contains correspondence between the Staff and the Applicant which appear to be outside the scope of Part 54. For example, one reference is to RAIs issued regarding an amendment to Oconee's technical specifications. *See* Attachment 6, at 4.

Supplement at 3-4. In addition to referencing the bases for Contention # 1, the Petitioners provide three bases to support the admission of this contention. First, the Petitioners state that the "current, nebulous status of BAW-2251, BAW-2248, BAW-2243A, and BAW-2244A cannot support a determination on the safety or the validity" of the Applicant's aging management programs. *Id.* at 4. As already discussed, the status of the Staff's ongoing review of these reports does not indicate that the Application is incomplete.[9] Nor is the Staff's review at issue in this proceeding. Thus, this first basis does not support the admission of Contention # 2.

In addition, the Petitioners' basis is premised on a misunderstanding of certain statements in the Application. The Petitioners first quote a statement in the Application that is a statement from the Topical Report, BAW-2243A, "Demonstration of The Management of Aging Effects for the Reactor Coolant System Piping." *See* Supplement at 4, *citing* Application, v. 3, 4.3-30. The referenced statement provides that the license renewal

---

[9] Further, with respect to two of the four reports referenced by the Petitioners, the Staff has, in fact, completed its review. After the Staff completed its review of BAW-2244, "Demonstration of the Aging Effects for the Pressurizer," this report was reissued, with the Staff's revised Final Safety Evaluation attached , as BAW-2244A. The Staff's Final Safety Evaluation for BAW-2244 was revised to clarify that an applicant referencing this report could address the Action Items and Open Items in the renewal application. *See* Letter to David J. Firth, Program Director, Generic License Renewal Program, The B&W Owners Group from Christopher I. Grimes, Director, License Renewal Project Directorate, Division of Reactor Program Management, Office of Nuclear Reactor Regulation, attached to B&W-2244A. The Staff's initial Safety Evaluation was issued on August 18, 1998. *See* Final Safety Evaluation Report Concerning Babcock & Wilcox Owners Group Topical Report No. BAW-2244, "Demonstration of the Management of Aging Effects for the Pressurizer," Project No. 683, attached to Letter to David J. Firth, Program Director, Generic License Renewal Program, Framatome Technologies, Inc., from Marylee M. Slosson, Acting Director, Division of Reactor Program Management, Office of Nuclear Reactor Regulation, August 18, 1997. Similarly, BAW-2243 was reissued with the Staff's Final Safety Evaluation attached as BAW 2243A.

applicant referencing BAW-2243A will need to provide details of the inspection program in its license renewal application. *Id.* The details of this inspection program are found in the Application at v. 3, at 4.3-29. Pages 4.3-29-30 are attached hereto as Attachment 1. The Petitioners neither reference this part of the Application nor assert that the Applicant's proposed program is inadequate. Thus, this statement does not demonstrate that the Application is in any way incomplete.

Similarly, the Petitioners reference another statement in the Application which is a quotation from another topical report, BAW-2244A, "Demonstration of the Management of Aging Effects for the Pressurizer." *See id. citing* Application v.1, at 2.4-28. The quoted section provides that certain activities are necessary so that the Staff can conclude that all aging effects applicable to the pressurizer vessel cladding are being adequately addressed. *See* Application, v. 1, at 2.4-28. A copy of page 2.4-28 is attached hereto as Attachment 2. The Applicant provides its response to the Staff's statement in Chapter 4 of the Application. *See id.* The Petitioners do not assert that the Applicant's response to the Staff's statement is in any way deficient. Thus, this statement does not provide a basis for the admission of a contention.

Next, the Petitioners question the "timing, and therefore validity, of specific aging management program activities." Supplement at 4. The Petitioners specifically reference a statement in the Application that is, again, a reference to Topical Report BAW 2244A. *See id.* This statement provides that "a program to provide reasonable demonstration of the integrity of the pressurizer cladding could be a one-time inspection for license renewal." *Id. quoting* Application v.1, at 2.4. The Petitioners assert that this one-time inspection may not

be adequate as an aging management program. *Id.* The Petitioners are concerned that this one-time inspection may be performed well in advance of the expiration of the current license term and would not take into account an additional ten years of "wear and tear" on the pressurizer cladding. *Id.*

The Petitioners, however, misunderstand the purpose of this one-time inspection. The one-time inspection is intended to be a means to determine whether there is cracking of the stainless steel cladding such that a program to manage that effect would be necessary. It is not intended to be a program to manage the effects of aging during the period of extended operation. *See* 10 C.F.R. § 54.29. In its Final Safety Evaluation Report concerning BAW-2244, the Staff considered the cracking of the pressurizer stainless steel cladding an aging effect that needed to be addressed. *See* Final Safety Evaluation Concerning Babcock & Wilcox Owners Group Topical Report No. BAW-2244, "Demonstration of the Management of Aging Effects for the Pressurizer," (FSER) at 9. A copy of the relevant section of the FSER is attached hereto as Attachment 3. This conclusion was based on industry experience that indicated that the stainless steel cladding in pressurizers could be susceptible to cracking and the fact that one non-B&W plant had experienced some cracking. *Id.* The Staff, in the FSER, suggested that one way to demonstrate the integrity of the pressurizer cladding would be to conduct an additional inspection of the stainless steel cladding as a prerequisite to renewal. *Id.* at 10. This inspection would provide evidence that the cladding had not experienced cracking. *Id.* If flaws were detected, corrective measures would be required. *Id.*

The Petitioners fail to provide any alleged fact or expert opinion that supports its assertion that a one-time inspection of the pressurizer stainless steel cladding would be insufficient to determine whether there had been cracking of the pressurizer stainless steel cladding at Oconee. This basis, therefore, does not support the admission of Contention # 2. *See* 10 C.F.R. § 2.714(b)(2)(ii); *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998); *Sacramento Municipal Utility Dist.* (Rancho Seco Generating Nuclear Generating Station), LBP-93-23, 38 NRC 200, 232-33 (1993) *review declined*, CLI-94-2, 39 NRC 91 (1994)(Licensing Board dismissed a proposed contention because the petitioner did not provide data, expert opinion, or other sources to counter the information in the record).

Finally, the Petitioners reference the Staff's RAIs as an additional basis for Contention # 2. Supplement at 4. As discussed above, the Petitioners may not merely reference the Staff's RAIs, without more, as a basis for a contention. *Rancho Seco*, CLI-93-3, 37 NRC at 146-147. None of the bases discussed above demonstrate that a genuine dispute on a material issue of law or fact with the Applicant exists. Thus, Contention # 2 does not meet 10 C.F.R. § 2.714(b)(2) and it should, therefore, be dismissed.

Contention # 3 provides:

> As a matter of law and fact, Duke Energy Corporation's Application for Renewed Operating License for Oconee Nuclear Station Units 1, 2 and 3 fails to meet mandated law under the National Environmental Policy Act (NEPA), and therefore should be withdrawn and/or summarily dismissed.

Supplement at 4. As a basis for this contention, the Petitioners claim that certain environmental regulations have been violated. *Id.* at 4-5. The Petitioners also assert that the

Application constitutes impermissible "segmentation" of a project contradicting a "series of NEPA cases." *Id.* at 4. Finally, the Petitioners reference the Staff's RAIs as a basis for this contention.[10] *Id.* None of these bases support the admission of Contention # 3. Thus, it should be dismissed.

As an initial matter, the Petitioners reference the incorrect regulations. The Petitioners refer to the Council on Environmental Quality's regulations found at Title 40 of the Code of Federal Regulations. *Id.* The Commission's regulations implementing NEPA, however, are in 10 C.F.R. Part 51.[11] The information that an applicant for license renewal needs to provide is set forth in 10 C.F.R. § 51.53(c). The Petitioners do not assert that the Applicant's environmental report (ER) fails to meet this requirement.[12]

---

[10] The Petitioners also assert, as a basis for Contention # 3, that they "believe" that to permit the Applicant to address safety and aging management programs in dispersed increments over many years would impair the NRC's ability to provide necessary safety analyses to decide whether to approve the Application. *Id.* at 4. It is not clear how this basis supports what is, in essence, an environmental contention. In any event, this basis does not provide the requisite specificity, with specific references to the Application, to support an admissible contention. *See* 10 C.F.R. § 2.714(b)(2).

[11] The Commission has indicated its view that:

> as a matter of law, the NRC as an independent regulatory agency can be bound by CEQ's NEPA regulations only insofar as those regulations are procedural or ministerial in nature. NRC is not bound by those portions of CEQ's NEPA regulations which have a substantive impact on the way in which the Commission performs its regulatory functions.

49 Fed. Reg. 9352 (March 12, 1984).

[12] Although it is the Staff and not the applicant who is required to comply with NEPA, environmental contentions may be formulated on the basis of the applicant's environmental report. 10 C.F.R. § 2.714(b)(2)(iii); *Rancho Seco*, LBP-93-23, 38 NRC at 251.

With respect to their assertions that the Application violates the regulations found at Title 40, the Petitioners state that the Applicant has deferred the development of specific safety and aging management programs until after the NRC would issue an operating license or just before the current license expires. Supplement at 4. This deferral, according to the Petitioners violates 40 C.F.R. § 1500.1(b) which states that environmental information must be made available before decisions are made. *Id.* The Petitioners do not establish the applicability of that regulation or otherwise elaborate, other than referring to their first two contentions, on their assertion that the Applicant has deferred the development of specific safety and aging management programs. *See* Supplement at 4. As discussed above, Contentions # 1 and # 2 refer to the Staff's review of certain reports incorporated by reference into the Application. These reports, as well as the Staff 's review of them are either already publically available or will be upon completion of the Staff's review and before a decision is made with respect to the Application. Thus, even if 40 C.F.R § 1500.1(b) were applicable, the Petitioners do not explain how this regulation is violated. This basis, therefore, does not support the admission of Contention # 3.

The Petitioners also assert that the Application violates 40 C.F.R. §§ 1502.2(g) and 1502.21. *Id.* at 5. Section 1502.2(g) states that the environmental impact statement must serve as a means of assessing the impact of proposed agency actions, rather than justifying a decision already made. Section 1502.21 provides that agencies may not incorporate material by reference into an environmental impact statement unless it is reasonably available for inspection within the time allowed for comment. As an explanation for their

assertions that these regulations have been violated, the Petitioners refer to their previous two contentions. *Id.*

The Petitioners, however, fail to explain how these two regulations were violated, even if they were applicable. Both regulations refer to the environmental impact statement that the agency is to prepare, not the application. Further, with respect to incorporation by reference of material, the Applicant's incorporation by reference of the topical reports into the Application is in accord with 10 C.F.R. § 54.17(e). Moreover, these reports are publically available for the Petitioners' review. Thus, the Petitioners have failed to provide sufficient information to demonstrate that these regulations have, in fact, been violated. *See* 10 C.F.R. § 2.714(b)(2)(iii). This basis, therefore, does not support the admission of Contention # 3.

The Petitioners also argue that the incorporation of these reports into the Application constitutes impermissible segmentation, as discussed in a series of NEPA cases. Supplement at 4. Although the Petitioners do not provide any references to specific federal or NRC cases, they do reference two filings submitted in a different Commission proceeding.[13] *Id.* The incorporation of these reports, however, does not constitute impermissible segmentation. Segmentation refers to dividing a large or cumulative project into smaller components in order to avoid designating the project a major federal action under NEPA. *See Susquehanna Valley Alliance v. Three Mile Island Nuclear Reactor*, 619 F.2d 231, 240 (3d Cir. 1980). Here, however, the Commission recognizes that license renewal requires the preparation of

---

[13] These documents were filed in the *Seabrook* license amendment proceeding. *North Atlantic Energy Service Corp.* (Seabrook Station Unit No. 1), Docket No. 50-443-LA, ALSBP No. 98-746-05-LA.

an environmental impact statement. The Staff has prepared a Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, 1996 (GEIS). Further, the Staff will issue a plant specific environmental impact statement (EIS) which will be a supplement to the GEIS. 10 C.F.R. § 51.95(c). *See Duke Energy Corporation Oconee Nuclear Station, Units 1, 2, and 3, Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process*, 63 Fed. Reg. 50257 (Sept. 21, 1998). The Petitioners fail to demonstrate how the NRC has impermissibly segmented the Oconee license renewal review so as to avoid designating it as a major federal action.

The Petitioners also reference the Staff's RAIs as a basis for Contention # 3. *Id.* at 5. As previously discussed, the mere reference to the Staff's RAIs, without more, is insufficient to provide a basis for a contention. As discussed above, none of the bases proffered by the Petitioners demonstrate that a genuine dispute exists with the Applicant on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). Contention # 3 should, therefore be dismissed.

Contention # 4 provides:

> The Petitioners submit that the specific issue of the storage of spent fuel and other radioactive substances on the site of the Oconee Nuclear Station must be addressed in these proceedings. In addition, the status and capacity of the current spent fuel storage facility must be disclosed and addressed. The transport of radioactive material to other locations, if and when storage capacity is exceeded, must be disclosed and addressed. The real and potential availability and viability of other High Level Waste storage sites must be disclosed and addressed.

Supplement at 5. The Petitioners provide three bases to support the admission of Contention # 4. They first assert that there is no discussion of the storage of spent fuel and other radioactive substances on the Oconee site in the Applicant's ER. *Id.* They also state that the availability and viability of other high level waste storage sites must be disclosed and

addressed. *Id.* Pursuant to 10 C.F.R. § 51.53(c)(3)(i), however, the Applicant is not required to provide information regarding the storage and disposal of spent fuel and other radioactive substances.[14] Specifically, 51.53(c)(3)(i) provides that an applicant need not provide information regarding Category 1 issues set forth in Appendix B to Part 51, Subpart A. Table B-1 in Appendix B to Subpart A provides that impacts associated with spent fuel and high level waste disposal, low-level waste storage and disposal, mixed waste storage and disposal, and on-site spent fuel are all Category 1 issues. Thus, the Applicant was not required to address these impacts in its ER. In addition, pursuant to 10 C.F.R.§ 51.23(a), no discussion of any environmental impact of spent fuel storage in reactor facility storage pools or independent spent fuel storage installation is required.

Further, the Commission has already considered the environmental impacts of the other activities. *See* 10 C.F.R § 51.53(c)(3)(i). *See also Generic Environmental Impact Statement for License Renewal of Nuclear Plants*, NUREG-1437, 1996. In addition, the Commission has determined that spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the license life for operation and that there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century. 10 C.F.R. § 51.23. Thus, these bases do not support the admission of Contention # 4.

---

[14] As discussed in the Staff's Answer, the storage and management of spent fuel is outside the scope of this proceeding because it is part of the current licensing basis (CLB) for Oconee. *See* Staff's Answer at 12, n. 5, *citing* 10 C.F.R. §§ 54.3, 54.30. In addition, the Applicant was granted a license, pursuant to Part 72, to store spent fuel in an Independent Spent Fuel Storage Facility. 55 Fed. Reg. 4035 (1990). The granting of this license was subject to the hearing requirements of 10 C.F.R. Part 2.

The Petitioners' third basis is that the transport of radioactive waste to other locations must be disclosed and addressed. *Id.* The Petitioners, in support of this basis, reference the fact that the Applicant stated in its Application that it did not address this issue in its ER. *Id.* The Applicant, however, stated that it did not address the issue of transportation of high level waste because the Commission has initiated a rulemaking that would consider the environmental impacts of the transportation of high level waste generically and not on a plant specific basis. *See* Application v. iv, at 4-54-55. Thus, the Applicant did not address this issue pending the outcome of the rulemaking. *Id.*

This basis does not support the admission of Contention # 4 because, as a general rule, contentions that are or about to become the subject of a general rulemaking by the Commission should not be admitted as contentions in individual license proceedings. *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit No. 1), ALAB-729, 17 NRC 814, 889-90 (1983).[15] *See Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-813, 22 NRC 59, 86 (1985) *citing Potomac Elec. Power Co.* (Douglas Point Nuclear Generating Facility), ALAB-218, 8 AEC 79, 85 (1974). *See also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179 (1998). An exception to this general rule is where the consideration of such an issue on a

---

[15] The Commission reversed the Appeal Board's holding that the issue involved there - environmental qualification of safety related equipment - was being resolved outside the pending proceeding. *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-84-11, 20 NRC 1, 4 (1984). The Commission declared that the generic rulemaking on environmental qualification did not preclude a challenge to the continued operation of a plant where it is alleged that the plant could not operate safely. *Id.* at 6. The Commission, however, did not disagree with the Appeal Board's statement that, as a general matter, issues that are the subject of a rulemaking are inappropriate for consideration in individual license proceeding. *See id.*

case-by-case basis was contemplated by the approach adopted in the rule making proceeding. *Three Mile Island*, ALAB-729, 17 NRC at 889-90. *See also Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Units 1 & 2), LBP-81-1A, 15 NRC 43 (1982); *Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-81-51, 14 NRC 896, 898 (1981).

As correctly noted by the Applicant, the Staff has initiated a rulemaking on the specific issue of the environmental impacts of transportation of high level waste. *See* SECY-97-270 (December 3, 1997); Staff Requirements Memorandum, SRM M970612, January 13, 1998 (SRM). Copies of SECY-97-270 and the SRM are attached hereto as Attachment 4. In SECY-97-270, the Staff presented its preliminary view that the environmental impacts of high level waste could be a Category 1 issue and may be generically adopted in a license renewal application. In the SRM the Commission approved the Staff's proposal to amend 10 C.F.R. § 51.53(c)(3)(ii)(M) to categorize the impacts of transportation of high level waste as a Category 1 issue. Further, a review of SECY-97-279 and the SRM indicates that the Commission's intent is that the environmental impacts of the transportation of high level waste should not be litigated in individual adjudications. In the SRM, the Commission directed the Staff to require applicants who have submitted applications before the rulemaking is completed to provide a discussion of this issue in its ER only if to await the completion of the rulemaking would delay the licensing process. Thus, if it would not delay the licensing process, an applicant would not need to address this issue and the Staff's consideration of it under NEPA would be considered generically rather than on a plant specific basis. It can be inferred, therefore, that the Commission's intent is

that, as a general matter, the environmental impacts of high level waste transportation should not be considered on a case-by-case basis.[16] This issue, therefore, is not an appropriate issue for litigation.

As discussed above, none of the bases the Petitioners proffer in support of Contention # 4 demonstrate that a genuine dispute exists with the Applicant on a material issue of law or fact. 10 C.F.R. § 2.714(b)(2)(iii). Contention # 4 should, therefore, be dismissed.

C. The Petitioners' Request for a Stay

In addition to submitting additional information regarding standing and proposed contentions, the Petitioners request that the proceeding be stayed until they have reviewed the Staff's RAIs and the Applicant's responses to them. Supplement at 5. The Commission's standards for granting a stay are set forth in 10 C.F.R. § 2.788. *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-9, 40 NRC 1, 6 (1994) (In ruling on a request to stay discovery, the Commission turned to the general stay standards in section 2.788 as guidance). Section 2.788 provides that in determining whether to grant or deny a stay, the presiding officer must consider:

> (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
> (2) Whether the party will be irreparably injured unless a stay is granted;
> (3) Whether the granting of a stay would harm other parties; and
> (4) Where the public interest lies.

---

[16] If the Staff were to conclude that it would delay the licensing process to await the completion of the rulemaking and conduct a plant specific review on this issue, any new information that results from this plant specific review may constitute good cause for a late-filed intervention petition. *See* 10 C.F.R. § 2.714(a)(1).

10 C.F.R. § 2.788(e). Irreparable injury is the most important of the four factors. *Sequoyah Fuels*, CLI-94-9, 40 NRC at 7. As set forth below, the Petitioners fail to demonstrate that consideration of these four factors warrants granting a stay.

The Petitioners do not address the factors set forth in section 2.788(e). As the basis for their request, the Petitioners state that they want the proceeding stayed until they have had a chance to review the Staff's RAIs and the Applicant's responses to them. Supplement at 5. The Petitioners, however, fail to demonstrate that if the proceeding were not stayed they would suffer irreparable injury. As discussed above, the proper focus of this proceeding is on the Application. A petitioner must formulate contentions based on its review of the application. *See* 10 C.F.R. § 2.714(b)(2)(iii). Thus, there is no injury to the Petitioners if this proceeding were to continue. Furthermore, if the Staff's RAIs or the Applicant's responses to them raise issues that could not have been raised before, the Petitioners are free to seek to raise them under the late-filed intervention criteria of 10 C.F.R. § 2.714(a)(1). Thus, the desire to review the Staff's RAIs and responses thereto does not establish irreparable injury to the Petitioners.

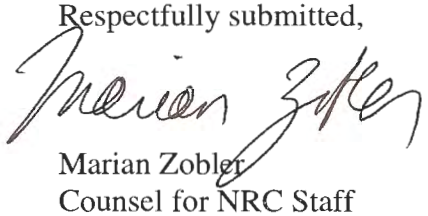
Nor do the remaining three factors warrant a stay of this proceeding. With respect to the first factor, the likelihood of success on the merits, in light of the fact that the proper focus of this proceeding is on the Application, the Petitioners have not demonstrated that a review of the RAIs and subsequent responses would result in an admissible contention. In addition, the Applicant and the Staff could be harmed by a delay in this proceeding since both parties have an interest in the timely identification of issues. Further, the public interest lies with the prompt resolution of proceedings. *See Statement of Policy On Conduct of*

Adjudicatory Proceedings, CLI-98-12, 48 NRC at 19. Thus, the Petitioners' request for a stay of this proceeding should be denied.

CONCLUSION

For the reasons discussed above, the Petitioners have failed to submit one admissible contention. Thus, in accordance with 10 C.F.R. § 2.714, their Petition should be denied. In addition, the Petitioners' request for a stay should be denied.

Respectfully submitted,



Marian Zobler
Counsel for NRC Staff

Dated at Rockville, Maryland
this 16th day of November, 1998

ATTACHMENT 1

4.3.12 SMALL BORE PIPING INSPECTION

Section 2.4 of OLRP-1001 identifies Reactor Coolant System small bore piping as subject to aging management review. Section 3.4 of OLRP-1001 and BAW-2243A identify cracking as an applicable aging effect for small bore piping. Alloy 600 small bore nozzles, which were also discussed in the BAW-2243A commitments, are addressed by the Oconee *Alloy 600 Program* (see Section 4.3.1 of OLRP-1001). The *Small Bore Piping Inspection* will manage the applicable aging effects for the period of extended operation. The *Small Bore Piping Inspection* will have the following attributes.

Purpose - The purpose of the *Small Bore Piping Inspection* will be to validate that service-induced weld cracking is not occurring in the small bore Reactor Coolant System piping that does not receive a volumetric examination under ASME Section XI.

Scope - The scope of *Small Bore Piping Inspection* includes the Oconee ISI [Footnote 5] Class A piping welds in lines less than 4 inch NPS [Footnote 6] including pipe, fittings, and branch connections.

Aging Effects - The aging effect being investigated is cracking of piping welds which may not be fully managed by the current ASME Section XI examinations. For Duke, these inspections are driven by the consequences of small bore piping failures rather than a lack of confidence in the current inservice inspection techniques to manage aging. In many instances, small bore piping cannot be isolated from the Reactor Coolant System and a leak could lead to a SBLOCA [Footnote 7] and plant shutdown.

Method - Selected inspection locations will receive either a destructive or non-destructive examination that permits inspection of the inside surface of the piping.

Sample Size - Pipe, fittings, and branch connections over the entire small bore size range will be considered for inspection. The total population of welds will be determined by summing the number of welds found in scope. To determine the inspection locations from this total population of welds, risk-informed approaches will be used to identify locations most susceptible to cracking. Susceptibility will be determined either qualitatively (i.e., based on site and industry experience, evaluation of current ASME Section XI inspection requirements and results, and any applicable regulatory initiatives) or quantitatively, or both. The consequences of weld failure, without respect to susceptibility, also will be evaluated to identify the most safety significant piping welds.

5. ISI = Inservice Inspection
6. NPS = Nominal Pipe Size
7. SBLOCA = Small Break Loss of Coolant Accident

After the evaluation of susceptibility and consequences, a list of potential inspection locations will be developed. Actual inspection locations will be selected based on physical accessibility, exposure levels, and the likelihood of meaningful results if a non-destructive technique is employed.

Industry Code or Standards - No code or standard exists to guide or govern this inspection. ASME Section XI provides rules for this piping, but not for volumetric or destructive examination. If destructive examination is employed, the Section XI rules for Repair and Replacement will be used to return piping to its original condition.

Frequency - The *Small Bore Piping Inspection* is a one-time inspection.

Acceptance Criteria or Standard - No unacceptable indication of cracking of piping welds as determined by engineering analysis.

Corrective Action - Any unacceptable indication of cracking of piping welds requires an engineering analysis be performed to determine proper corrective action.

Specific corrective actions will be implemented in accordance with the *Duke Quality Assurance Program.*

Timing of New Program or Activity - Following issuance of a renewed operating licenses for Oconee Nuclear Station, this inspection will be completed by February 6, 2103 (the end of the initial license term for Oconee Unit 1).

Administrative Controls - The *Small Bore Piping Inspection* will be implemented by plant procedures in accordance with the *Duke Quality Assurance Program.*

Regulatory Basis - Renewal Applicant Action Item in the NRC SER concerning the "Demonstration of the Management of Aging Effects for the Reactor Coolant System Piping," BAW-2243A:

"... The BWOG defers the development of details of ... (2) the sample inspection of small bore RCS piping, to the renewal applicant referencing this topical report. The renewal applicant will have to provide details of these ... inspection programs in its renewal application for staff review and approval."

ATTACHMENT 2

Table 2.4-3 Renewal Applicant Action Items Associated with BAW-2244A (continued)

Renewal Applicant Action Item (BAW-2244A, Sections 4.1 and 4.2)	Oconee-Specific Response
The staff notes that cracking in cladding could potentially propagate into the base metal material and should be addressed by an aging management program. Industry experience at one site has shown that this is a potential aging effect. The staff maintains that cracking of the stainless steel is a potential aging effect that must be addressed by an aging management program for the period of extended operation. A program to provide a reasonable demonstration of the integrity of the pressurizer cladding could be a one-time inspection for license renewal. The inspection should include the cladding and any attachment welds to the cladding. The additional inspection would provide information on the condition of the cladding or, if cracking is discovered, the condition of the underlying base metal as a result of the cracked cladding. The staff notes that the inspection technique chosen (e.g. visual, surface, or volumetric) must be capable of determining the condition of the cladding and must be submitted for staff review and approval. Without such additional aging management program activities, the staff cannot conclude that all aging effects applicable to the pressurizer vessel cladding have been adequately addressed by the aging management programs delineated in BAW-2244.	Description of this program is provided in Chapter 4 of OLRP-1001, which is Exhibit A of the Application for Renewal Operating Licenses, Oconee Nuclear Station Units 1, 2, and 3.
(2) Aging management of pressurizer heater penetration welds (discussed in Section 3.3.2.2.3 of this SER) The staff regards the provision for examination of pressurizer heater penetration welds in ASME Code, Section XI, ISI Examination Category B-E as applicable to pressurizer heater partial-penetration welds. The B&WOG considers the Examination Category B-E requirement not	Description of this program is provided in Chapter 4 of OLRP-1001, which is Exhibit A of the Application for Renewal Operating Licenses, Oconee Nuclear Station Units 1, 2, and 3.

ATTACHMENT 3

FINAL SAFETY EVALUATION REPORT

CONCERNING

BABCOCK & WILCOX OWNERS GROUP TOPICAL REPORT
No. BAW-2244

"DEMONSTRATION OF THE MANAGEMENT OF AGING
EFFECTS FOR THE PRESSURIZER"

PROJECT No. 683

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 26, 1997

Mr. David J. Firth
Program Director
Generic License Renewal Program
The B&W Owners Group
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852

SUBJECT: CLARIFICATION IN THE FINAL SAFETY EVALUATION REPORT FOR BAW-2244, "DEMONSTRATION OF THE MANAGEMENT OF AGING EFFECTS FOR THE PRESSURIZER"

Dear Mr. Firth:

By letter dated October 27, 1997 you requested clarification in Section 4.1- Renewal Applicant Action Items and Section 4.2- Open Items of the Final Safety Evaluation Report (FSER) dated August 18, 1997 for BAW-2244, "Demonstration of the Management of Aging Effects for the Pressurizer "

We have revised the language in Section 4.1 and Section 4.2 of the FSER. The licensees participating in the B&W Owners Group Generic License Renewal Program, referencing BAW-2244, can address the Action Items in Section 4.1 and the Open Items in Section 4.2 in a license renewal application. Thus the licensee would not have to address the items in Section 4.1 and Section 4.2 before the renewal application is submitted.

Attached is a copy of the revised Final Safety Evaluation report for BAW-2244.

If you have any additional comments or concerns, please contact Raj Anand of my staff at 301-415-1146.

Sincerely,

C I Grimes

Christopher I. Grimes, Director
Licence Renewal Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Project No. 683

Enclosure: Revised Final Safety Evaluation

cc w/encl: See next page

cc:

Mr. Robert B. Borsum
Framatome Technologies
1700 Rockville Pike
Suite 525
Rockville, MD 20852

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Michael Laggart
Manager, Corporate Licensing
GPU Nuclear Corporation
One Upper Pond Road
Parsippany, NJ 07054

Mr. James J. Fisicaro
Director, Licensing
Entergy Operations, Inc.
Route 3, Box 137G
Russelville, AR 72801

Chairman
Board of County Commissioners
of Dauphin County
Daughin County Courthouse
Harrisburg, PA 17120

Earnest L. Blake, Jr., Esq.
Shaw, Pittman, Potts
and Trowbridge
2300 N. Street, NW
Washington, D.C. 20037

Mr. J. W. Hampton
Nuclear Generation Vice President
Duke Power Company
Oconee Nuclear Station
MC: ONO 1VP
P.O. Box 1439
Seneca, SC 29679

William Dornsife, Acting Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P.O. Box 2063
Harrisburg, PA 17120

Mr. John R. McGaha
Vice President, Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jacksonville, MS 39286

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta St., N.W. Suite 2900
Atlanta, GA 30323

Chairman Board of Supervisors
of Londonderry Township
R.D. #1 Geyers Church Road
Middletown, PA 17057

Mr. R. L. Gill
GLRP Licensing Coordinator
c/o Duke Power Company EC-12R
P.O. Box 1006
Charlotte, NC 28201-1006

Mr. J. E. Burchfield, Compliance
Duke Power Company
Oconee Nuclear Site
P.O. Box 1439
Seneca, SC 29679

NRC FINAL SAFETY EVALUATION

Clarification in the Final Safety Evaluation Report for BAW-2244,

"Demonstration of the Management of Aging

Effects for the Pressurizer"

TABLE OF CONTENTS

boundary. Consequently, the B&WOG contended that such a scenario was beyond the scope of the pressurizer design and otherwise hypothetical. The staff agreed that the spray head and internal spray line items did not support any of the intended functions defined in 10 CFR 54.4(a) and, therefore, were not within the scope of license renewal.

The B&W pressurizer was designed with three heater bundle assemblies, each of which consisted of three parallel disks (two referred to as support plates, and one referred to as the diaphragm plate) drilled to hold 39 individual immersion heaters. The heater bundle assembly components included heater bundle assembly support plates, the heater bundle assembly horizontal guide plates or guide rails, and heater bundle assembly support collars. None of these components supported the pressure boundary or pressure control functions. Furthermore, a failure of these components would not lead to a loss of the pressure boundary or pressure control functions. Therefore, the staff determined that these components were not within the scope of license renewal.

The vessel lifting lugs, internal maintenance equipment support plates, and the internal ladder also did not support the pressure boundary or pressure control functions, because failure of these components would not affect the pressurizer pressure boundary or RCS pressure control. Therefore, the staff made the determination that these components were not within the scope of license renewal. In the case of the O-rings between the heater bundle diaphragm plates and heater belt forgings, the pressure boundary function has been extended to the seal welds located between the heater bundle diaphragm plate and the individual heater sheaths or the heater sleeves. Therefore, the staff made the determination that the O'rings between the heater bundle diaphragm plates and heater belt forgings were not within the scope of license renewal. However, the seal welds that performed the pressurizer pressure boundary function were within the scope of license renewal.

3.2 Effects of Aging

As discussed in Section 2.2 of this SER, the effects of aging evaluated in BAW-2244 included cracking (initiation and growth), loss of fracture toughness, loss of material, and loss of mechanical closure integrity (for bolted connections). The B&WOG reviewed these effects for their specific applicability to the pressurizer components within the scope of the report.

After reviewing BAW-2244, the staff identified Open Item No. 1 (discussed in Section 3.2.1 and 4.2 of this SER) that, in addition to cracking of welded joints and base metals, required the B&WOG to address the potential cracking of the stainless steel cladding. In addition, the staff concluded that a primary water chemistry program could not be used to justify precluding stress corrosion cracking (SCC) of stainless steels, as a potential aging effect. With the exception of Open Item No. 1, the staff agreed that the B&WOG had properly identified the potential aging effects to be evaluated for the five categories of the pressurizer components as discussed in Sections 3.2.1 through 3.2.5 below.

3.2.1 Pressurizer Pressure Vessel

The B&W pressurizer vessel as defined in BAW-2244 consisted of a vertical cylindrical shell with a semi-hemispherical head at both the top and the bottom. Its dimensions were documented as

nominally 42 feet, 8.625 inches in height from top to bottom and 96.375 inches in outer diameter. The vessel walls were identified to be 6.1875 inches thick at the cylindrical section, 12.5 inches at the heater belt forgings, and 4.75 inches at the upper and lower welds. These sections were formed from carbon steel plate, while the upper and lower heads were formed from hot pressing 5.125-inch carbon steel plate. The pressurizer sections were internally clad with stainless steel.

In BAW-2244, the B&WOG stated that the potential effects of aging on the clad carbon steel pressurizer vessel include cracking of the base metal welded joints and loss of material from the external surfaces. The staff concurred with this assessment. When degraded as a result of cracking, the clad carbon steel pressurizer vessel may not have the structural integrity to withstand design-bases event loads (such as seismic loads) prescribed in the plant's CLB. Cracking within the welded carbon steel joints (i.e., circumferential and longitudinal welds of the pressurizer vessel) was considered an applicable aging effect for the period of extended operation because of the potential for pre-service and service-induced flaws. The staff agreed with the B&WOG that the pressurizer base metal welded joints were potentially susceptible to cracking. The reason for this susceptibility was that the welds contained residual welding stresses, and the associated heat affected zones (HAZ) contained a microstructure susceptible to cracking as a result of being exposed to welding temperatures. BAW-2244 also stated that, other than welded joints, the pressurizer base metal was not susceptible to cracking, provided that the cladding material remains intact. The reason for this was that the base metal itself was not affected by the welding process. The staff agreed that, if not exposed to primary coolant, cracking of the surrounding base metal would not be an applicable aging effect for the period of extended operation. However, the base metal material was susceptible to age-related cracking or loss of material if exposed to primary coolant as a result of cracking or loss of the cladding material.

The pressurizer vessel was clad on the inside surface with stainless steel. This cladding was not credited in the plant's CLB as a load-bearing element of the pressurizer vessel; however, cracking or loss of cladding material could expose the underlying base metal to the reactor coolant environment. This can result in the loss of material or cracking of the base metal, thus challenging the structural integrity of the pressurizer vessel and its ability to withstand design basis loads.

Strict control of the cladding fabrication and application processes precluded significant cladding flaws and ensured a sound bond between the cladding and the base metal material. However, industry experience has shown that the stainless steel cladding in pressurizers may be susceptible to cracking. For example, BAW-2244 identified a non-B&W plant that experienced numerous clad cracks with one crack extending into the base metal of the pressurizer.

The pressurizer pressure vessel was known to be subject to thermal stresses while in service including stresses induced by water level fluctuations and energized heaters with a potential for thermal fatigue. The staff also noted that welds used to attach items to the vessel internal clad surfaces could potentially crack and propagate into the vessel walls. The B&WOG did not consider clad cracking an applicable aging effect. Nonetheless, for the reasons stated above, the staff considered cracking of pressurizer stainless steel cladding an aging effect that needed to be addressed. Industry experience has also shown that cracking of the cladding can penetrate through the base metal of the pressurizer that raised concerns with the integrity of the

pressure vessel and its ability to perform its intended function under CLB design loading conditions.

In a draft version of this SER, dated September 13, 1996, the staff made the potential clad cracking issue Open Item No. 1. Specifically, the staff stated that the B&WOG must propose a program to address potential cracking of the stainless steel cladding of the pressurizer vessel. In that draft SER, the staff suggested that one way to demonstrate the integrity of the pressurizer cladding would be to conduct an additional inspection of the stainless steel cladding as a prerequisite to license renewal. This inspection would provide evidence that the cladding had not experienced cracking. If a flaw were detected, Appendix B to 10 CFR Part 50 would require a root cause determination and corrective measures.

In its response to this open item, dated November 22, 1996, the B&WOG maintained that, although industry has experienced cracking of the cladding, the incident in question was not applicable to pressurizers designed by B&W. As such, the B&WOG deferred resolution of this open item, including any agreement to perform a one-time cladding inspection as suggested by the staff, to a plant-specific renewal application. Therefore, this item remained open.

The B&WOG stated that loss of fracture toughness due to thermal embrittlement was not an applicable aging effect for B&W pressurizer vessel materials. The staff concurred with this assertion because the materials used and the relatively low operating temperatures of pressurized water reactors (PWRs) did not create conditions conducive to thermal embrittlement.

The B&WOG indicated that the loss of base metal material from the external surfaces of the pressurizer as a result of boric acid wastage was an applicable aging effect. Experience has shown that primary coolant leakage onto the external surfaces of carbon steel components can cause boric acid corrosion that will ultimately result in loss of material. The staff agreed with the fact that the loss of base metal material from boric acid corrosion was an aging effect applicable to license renewal.

3.2.2 Pressure Vessel Nozzles

Category 2 components (pressure vessel nozzles) included full-penetration welded nozzles, pressure-retaining partial-penetration welded nozzles, and pressure-retaining dissimilar metal welds in vessel nozzles. The pressurizer shell contained 18 penetrations. Associated nozzles were fabricated from either Alloy 600, stainless steel, or carbon steel cladded with stainless steel. Safe ends and thermal sleeves were fabricated from either stainless steel or Alloy 600. Stainless steel safe ends or long weld necks were attached to the surge and pressure relief nozzles at all plants.

For full-penetration welded nozzles, Alloy 600 safe ends were attached to the spray nozzles at all plants and to the sampling and level sensing nozzles at ONS-1, -2 and -3, and TMI-1. Pressure-retaining partial-penetration welded nozzles were fabricated from Alloy 600. Pressure-retaining dissimilar metal welds in vessel nozzles, specifically the surge nozzle and spray

ATTACHMENT 4

POLICY ISSUE
(Notation Vote)

December 3, 1997 SECY-97-279

FOR: The Commissioners

FROM: L. Joseph Callan
Executive Director for Operations

SUBJECT: GENERIC AND CUMULATIVE ENVIRONMENTAL IMPACTS OF TRANSPORTATION OF HIGH-LEVEL WASTE (HLW) IN THE VICINITY OF AN HLW REPOSITORY (SRM M970612)

PURPOSE:

To provide the Commission regulatory options for license renewal applicants to address the cumulative and generic environmental impacts of transportation of HLW activities in the vicinity of an HLW repository. This paper is provided in response to a staff requirements memorandum (SRM) dated June 26, 1997, and WITS item 9700218.

BACKGROUND:

The Commission revised its environmental protecuon regulations (10 CFR Part 51) for licerse renewal on Decer ber 18, 1996 (61 FR 66537). Since the final rule was published, the staff met with two potential license renewal applicants and the Nuclear Energy Institute (NEI) to discuss the format and content of the environmental report (ER) to be included in a license renewal applicatic n. The staff discussed a number of issues during these meetings and provided guidance in all but one area, the generic and cumulative impacts of transportation of HLW. Section 51.53 (c)(3)(ii)(M) states, in part,

> The review of impacts shall also discuss the generic and cumulative impacts associat d with transportation operation in the vicinity of a high-level waste repository s. The candidate site at Yucca Mountain should be used for the purpose of impact analysis as long as that site is under consideration for licensing.

D>14

13

Contact: Claudia M. Craig, NRR
301-415-1053

NOTE: TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS MADE AVAILABLE

During the meetings, industry representatives stated that individual license renewal applicants should not be responsible for the analysis of generic and cumulative environmental effects resulting from transportation of HLW in the vicinity of an HLW repository. The industry representatives stated that the Department of Energy (DOE) has the responsibility for considering the cumulative environmental impacts of transportation of HLW. The industry representatives believe that the issue should be reexamined and categorized as a Category 1 issue, which will not require a plant-specific evaluation in a license renewal applicant's ER. The two licensees requested guidance from the staff to determine the level of effort needed to address this issue in the ER. As a result, the staff began a review of available information to determine whether the impacts of transportation of HLW could be recategorized as a generic Category 1 issue for 10 CFR Part 51.

In the Statements of Consideration for the final 10 CFR Part 51 rulemaking in 1996, the Commission stated that it believed there was insufficient information and that unresolved issues could exist regarding the magnitude of cumulative impacts from the transportation of HLW in the vicinity of an HLW repository; it therefore declined to reach a Category 1 conclusion at that time (61 FR 28480). However, the Commission recognized the generic nature of the issue and stated that as part of its efforts to develop regulatory guidance for the rule, it would consider whether further changes to the rule were desirable to generically address the issue of cumulative impacts of transportation of HLW and the impacts that the use of higher burn-up fuel would have on the conditions listed in Table S-4 of 10 CFR Part 51. The Commission stated that although DOE will have title to the spent fuel and HLW and must consider the environmental impacts of transportation of HLW in the National Environmental Policy Act (NEPA) review for an HLW repository, the Commission still has an obligation under NEPA to consider the impacts of transportation of HLW in its environmental review for renewal of an operating license (61 FR 66538).

At the Commission briefing of June 12, 1997, the staff provided a status of license renewal activities. In the SRM dated June 26, 1997, from that meeting, the staff was directed to provide a schedule for completing the analysis of DOE information on HLW transportation impacts and to provide the Commission options for addressing the generic and cumulative HLW environmental impacts within the framework of a license renewal application. In a memorandum dated July 17, 1997, the staff replied to the Commission that completion of the analysis was scheduled for October 1997, while the Commission paper outlining the regulatory options was scheduled for completion in November 1997, barring complications in obtaining further data from DOE. By memorandum dated November 21, 1997, the staff informed the Commission of the results of the supplemental analysis. The analysis provided additional information regarding the generic and cumulative impacts of the transportation of HLW and addressed the implications of higher fuel enrichment and burn-up for the environmental effects resulting from transportation of fuel and waste, Table S-4. While the evaluation of the supplemental analysis is ongoing, the staff's preliminary view is that the supplemental analysis and the analysis provided in NUREG-1437, "Generic Environmental Impact Statement [GEIS] for License Renewal of Nuclear Plants," May 1996, support a reasonable technical and legal determination that transportation of HLW is a Category 1 issue and may be generically adopted in a license renewal application.

DISCUSSION

The following options are available to address the generic and cumulative impacts of transportation of HLW in the vicinity of an HLW repository for license renewal applicants. One or more options may be implemented, depending on when a license renewal application is submitted.

Option 1 - Grant an Exemption (near-term applicants)
The Commission may exempt a license renewal applicant from addressing the HLW transportation requirements of 10 CFR 51.53(c)(3)(ii)(M) in the ER. Exemptions are allowed under 10 CFR 51.6 if the Commission determines it is authorized by law and is otherwise in the public interest. As discussed at the Commission meeting of June 12, 1997, the obligation to examine environmental issues under NEPA fundamentally belongs to the NRC. NRC's regulations in 10 CFR Part 51 require that licensees submit information to the NRC that supports and shortens the NRC's NEPA review process. An exemption from this requirement is slightly different than the traditional exemption from other requirements in NRC's regulations. The Commission's basis for granting an exemption in this case would be that the issue is clearly generic and will be addressed as such by the NRC. Therefore, granting an exemption will not alleviate the obligations of the NRC to address the impacts of transportation of HLW in the vicinity of Yucca Mountain as part of its NEPA review; however, it will exempt a license renewal applicant from providing information in a plant-specific application. An exemption would be an additional action with regard to the review of the ER and the license renewal application. An evaluation and an environmental assessment would be developed to support the exemption.

This option was initially raised by the industry and discussed because at the time there was no analysis of the generic and cumulative impacts of transportation of HLW and it was unclear what information to support such an analysis was available from DOE. With the completion of the staff's supplemental analysis, which will be placed in the Public Document Room, and the information contained in NUREG-1437, information is available upon which a more complete analysis may be based. Licensees may reference and adopt the staff's analyses if the assumptions and analyses are applicable to the particular plant. Therefore, the staff does not believe that an exemption will be needed.

Option 2 - Provide a Discussion in the Plant-Specific ER (near-term applicants)
The Commission would require applicants to address the issue of generic and cumulative impacts associated with transportation of HLW in the vicinity of an HLW repository site as required by the rule. The applicant would provide the best available information on the basis of its evaluation of the applicability of the supplemental analysis, NUREG-1437, and DOE documentation to its site and would address any changes or site-specific information the staff may need in support of its evaluation. The impacts of the transportation of HLW would be discussed in a broad sense by the licensee, recognizing the generic nature of the issue and the role of DOE in the HLW transportation process. The NRC staff, in its evaluation, would supplement the applicant's analysis with additional information and include information as it becomes available from DOE.

Referencing and adopting the staff's analyses would be one acceptable way that an applicant could meet the requirements of the rule. The applicant would also be free to develop its own analysis on the basis of available DOE information. This option would allow licensees to meet the requirements of the rule in the near term by providing the Commission with information to support its evaluation. The staff is in favor of this option for license renewal applications that are submitted before final resolution through rulemaking is completed.

Option 3 - Rule making (long-term solution)
The Commission may amend 10 CFR 51.53(c)(3)(ii)(M) to categorize the impacts of transportation of HLW as a Category 1 issue. Category 1 issues allow an applicant to adopt the staff's generic analysis and do not require a plant-specific review in the ER. The basis for the rulemaking would be the staff's supplemental analysis and NUREG-1437 and would address both the generic and cumulative impacts of the transportation of HLW and the Table S-4 issues. Because this rulemaking would not be considered a candidate for a direct final rule, rulemaking would take approximately 1 year. The schedule is highly dependent on the extent of the public comments and any technical or legal challenges that may arise. The rulemaking could be initiated immediately, or could be initiated at the prescribed 10-year GEIS update interval (next update due in 2006) and could be concurrent with other options if a license renewal application is submitted before the rulemaking is completed. The staff is in favor of initiating rulemaking immediately to resolve the issue. This step would conserve both licensee and NRC resources in developing and reviewing the issue in plant-specific ERs.

RESOURCES:

The resources associated with Option 1 would be consistent with the resources needed to process other exemption requests, approximately .5 staff months. The resources associated with Option 2 would be included in the overall review of the license renewal application. The resources associated with rulemaking in Option 3, recognizing the uncertainties associated with the extent of the public comments and any legal or technical challenges, are estimated at 3 staff months.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection to its contents.

The Office of the Chief Financial Officer has reviewed this paper for resource implications and has no objections to its contents.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OFFICE OF THE SECRETARY

January 13, 1998

MEMORANDUM TO: L. Joseph Callan
Executive Director for Operations

FROM: John C. Hoyle, Secretary

SUBJECT: STAFF REQUIREMENTS - SECY-97-279 - GENERIC AND CUMULATIVE ENVIRONMENTAL IMPACTS OF TRANSPORTATION OF HIGH-LEVEL WASTE (HLW) IN THE VICINITY OF AN HLW REPOSITORY (SRM M970612)

The Commission has approved the staff's proposal to implement Option 3 to amend 10 CFR 51.53(c)(3)(ii)(M) as a long-term solution to categorize the impacts of transportation of HLW as a Category 1 issue. The staff's proposal to require licensees to provide a discussion in the plant-specific environmental report (Option 2) should be implemented only if a license renewal application is received before the rulemaking activity is completed and a delay due to the generic rulemaking might affect the licensing process for a license renewal. The staff should notify the Commission if implementation of Option 2 is later deemed necessary for this reason.

cc: Chairman Jackson
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
OGC
CIO
CFO
OCA
OIG
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR
DCS

SECY NOTE: THIS SRM, SECY-97-279, AND THE COMMISSION VOTING RECORD CONTAINING THE VOTE SHEETS OF ALL COMMISSIONERS WILL BE MADE PUBLICLY AVAILABLE 5 WORKING DAYS FROM THE DATE OF THIS SRM.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
DUKE ENERGY CORPORATION	)	Docket Nos. 50-269-LR
	)	50-270-LR
(Oconee Nuclear Station,	)	50-287-LR
Units 1, 2, and 3)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO PETITIONER'S FIRST SUPPLEMENTAL FILING" in the above captioned proceeding have been served on the following by electronic mail, with conforming copies, and attachments deposited in Nuclear Regulatory Commission internal mail system, or as indicated by an asterisk, by e-mail with conforming copies, and attachments deposited in United States mail, first class, or as indicated by a double asterisk by deposit in NRC internal mail system or as indicated by triple asterisk by deposit in the United States mail, first class, this 16th day of November, 1998.

B. Paul Cotter, Jr., III, Chairman
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to bpc1@nrc.gov)

Dr. Peter S. Lam
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to psl@nrc.gov)

Richard F. Cole
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to rfc1@nrc.gov)

Atomic Safety and Licensing Board
Panel **
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Office of the Secretary
ATTN: Rulemakings and Adjudications
Staff
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to hearingdocket@nrc.gov)

Office of the Commission Appellate**
Adjudication
Mail Stop: 16-G-15 OWFN
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Adjudicatory File (2)**
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Chattooga River Watershed Coalition*
P.O.Box 2006
Clayton, GA 30525
(E-mail copy to crwc@acme-brain.com)

J. Michael McGarry, III*
David A. Repka
Anne W. Cottingham
Winston & Strawn
1400 L Street, NW
Washington, DC 20005
(E-mail copy to jmcgarry@winston.com
drepka@winston.com
acotting@winston.com)

Paul R. Newton*
Lisa F. Vaughn
Assistant General Counsel
Duke Energy Corporation
422 South Church St.
(Mail Code PB05E)
Charlotte, North Carolina, 28202
(E-mail copy to
prnewton@duke-energy.com,
lfvaughn@duke-energy.com)

W. S. Lesan***
P.O.Box 66
Long Creek, SC 29658

Norman "Buzz" Williams***
190 Mountain Cove Rd.
Mountain Rest, SC 29664

William "Butch" Clay***
P.O.Box 53
Long Creek, SC 29658

Marian L. Zobler
Counsel for NRC Staff