UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	**Docket Nos. 52-025-COL and 52-026-COL**
Southern Nuclear Operating Company	)	
	)	
(COL Application for Vogtle Electric Generating Plant, Units 3 and 4)	)	**March 15, 2010**

SOUTHERN NUCLEAR OPERATING COMPANY'S MOTION TO EXCLUDE PORTIONS OF JOINT INTERVENORS' RESPONSE TO MOTION FOR SUMMARY DISPOSITION OF CONTENTION SAFETY-1 OR, IN THE ALTERNATIVE, FOR LEAVE TO REPLY

Pursuant to 10 C.F.R. § 2.323(a), Southern Nuclear Operating Company ("SNC") hereby moves to exclude portions of Joint Intervenors' Response to Motion for Summary Disposition of Contention Safety-1.[1] JIs' Response raises new issues and purports to assert fact issues which are not within the scope of the contention as admitted or the bases offered for the contention at the time of its admission. JIs have not sought to amend Safety-1 or file a new contention in order to raise these issues, which clearly could have been raised in Safety-1. Accordingly, SNC moves to exclude the evidence offered by the JIs as well as those portions of the JIs' response to SNC's Statement of Undisputed Facts which are based on that evidence.[2]

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[1] Joint Intervenors' Response to Motion for Summary Disposition of Contention Safety-1, Docket Nos. 52-025-COL and 52-026-COL (Mar. 4, 2010) ("JIs' Response"). Joint Intervenors ("JIs") include the Atlanta Women's Action for New Directions, Blue Ridge Environmental Defense League, Center for a Sustainable Coast, Savannah Riverkeeper, and Southern Alliance for Clean Energy.

[2] SNC recognizes that this Board has previously ruled that even though such new information is improper and should not be considered in ruling on a motion for summary disposition, the preferred method of addressing the impropriety of the information is through a motion for leave to reply, rather than a motion to strike. *See In re [SNC]* (Early Site Permit for Vogtle ESP, 67 NRC 54, 66 (2008). As demonstrated below however, Board's have granted motions to exclude such improperly submitted information under similar circumstances where the new

In the alternative, because JIs have raised issues and arguments that could not have been reasonably anticipated, SNC seeks leave to reply pursuant to 10 C.F.R. § 2.323(c). Although the Commission's regulations do not indicate a particular time required for a such reply, the Board's General Pre-hearing Order presumes that such replies should be submitted within seven days of the response to which the reply is addressed.[3] Although Counsel for SNC inadvertently overlooked the Board's presumptive time limit for replies in preparing this response, an extension of time in which to file such a reply will not delay the proceeding and SNC has not previously requested an extension of time in this proceeding. Furthermore, the out-of-scope nature of the JIs' arguments should be addressed if not excluded in order to complete the record on the motion for summary disposition. Accordingly, in the event the Board denies SNC's Motion to Exclude the out-of-scope submissions, SNC respectfully moves for leave to reply to the submissions and to do so out of time.

Counsel for SNC certifies that they have consulted with counsel for JIs and NRC Staff in accordance with 10 CFR § 2.323(b) in an effort to resolve the issues raised by this Motion. Counsel for JIs opposes this Motion to Exclude or for Leave to File a Reply, but does not oppose SNC's request to allow its motion for leave to file a reply out of time. Counsel for NRC Staff does not object to the filing of this Motion to Exclude or for Leave to File a Reply, and has no objection to SNC's request for leave to file a reply out of time.

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information amounted to a new contention that had not been properly raised pursuant to 10 C.F.R. § 2.309(f). *See* footnotes 12-15 *infra.*

[3] Memorandum and Order (Initial Prehearing Order), Docket Nos. 52-025-COL and 52-026-COL (2008), at 6 n.6 ("Prehearing Order").

I. Background

On March 28, 2008, SNC submitted an application for a COL for Vogtle Units 3 and 4 ("COLA").[4] JIs filed a petition for leave to intervene and admit three contentions on November 17, 2008 ("Petition"). The Board granted the Petition, finding only Safety-1 admissible.[5]

As originally admitted, Safety-1 stated:

> CONTENTION: SNC's COLA is incomplete because the FSAR fails to provide any detail as to how SNC will comply with NRC regulations governing storage of LLRW in the event an off-site waste disposal facility remains unavailable when VEGP Units 3 and 4 begin operations.[6]

On October 23, 2009, JIs moved to amend Safety-1, which motion the Board granted.[7] The Board amended Safety-1 to state:

> CONTENTION: SNC's COLA is incomplete because the FSAR fails to provide adequate detail as to how SNC will comply with NRC regulations governing storage of LLRW in the event an off-site waste disposal facility remains unavailable when VEGP Units 3 and 4 begin operations in that it does not contain the following information:
>
> A. A design plan for the LLRW storage facility for the two new proposed units based on more than assurances that the facility design will comply with NRC requirements, which must include information regarding building materials and high-integrity containers so as to permit a determination regarding exposure rates and dosages;
>
> B. A specific designation of where on the VEGP site the storage facility will be located; and
>
> C. A discussion of the health impacts on SNC employees from the additional LLRW storage associated with the two new proposed units.

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[4] Notice of Receipt and Availability of Application for a Combined License, 73 Fed. Reg. 24,616 (May 5, 2008).

[5] *See* Southern Nuclear Operating Company, *et al.*, Notice of Hearing and Opportunity to Petition for Leave to Intervene, 73 Fed. Reg. 53,446 (Sept. 16, 2008) ("Hearing Notice"). Memorandum and Order (Ruling on Standing and Contention Admissibility), LBP-09-03, Docket Nos. 52-025-COL and 52-026-COL (Mar. 5, 2009) ("Order Admitting Safety-1"). SNC and NRC Staff appealed the admission of Safety-1, and the Commission denied the appeals of the Board's order. *See In re Southern Nuclear Operating Co*. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-09-16, 2009 WL 2383011, at *3 (NRC July 31, 2009) ("Commission Order on Safety-1").

[6] Order Admitting Safety-1, at Appendix A.

[7] *See* Memorandum and Order (Ruling on Motion to Amend Contention), Docket Nos. 52-025-COL and 52-026-COL (Jan. 8, 2010) ("Order Amending Safety-1"), at 2.

The Board found that because Safety-1 constitutes "a rather straightforward legal issue," submission of motions for summary disposition was the most appropriate procedural path, prompting SNC to file the Motion for Summary Disposition of Safety-1.[8] The Board explained that Safety-1 was a legal contention alleging additional information was necessary, not a claim regarding the accuracy of the information already provided by SNC.[9] On February 12, 2010, the NRC Staff filed an Answer in Support of the SNC Motion, and on March 4, 2010 the JIs filed their response opposing the SNC Motion.

II. Applicable Law

Where, as here, an answer opposing a motion for summary disposition relies on facts or legal arguments outside the scope of the contention, the Board may exclude any improper new information or arguments from consideration and exclude the improper information from the record.[10] Excluding out-of-scope information – including whole declarations – is the appropriate remedy where "petitioners ha[ve] provided no good cause for failing to provide that information with the original petition."[11] While generally in the context of petitioners' reply to an opposition to a petition for intervention and contention admission, the Commission makes clear that the

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[8] [SNC's] Motion for Summary Disposition of [Safety-1], Docket Nos. 52-025-COL and 52-026-COL (Jan. 29, 2010) ("SNC Motion"). *See* Order Amending Safety-1, at 8-9, 8 n.5 ("The contention amendment proffered by JIs can be contrasted with what a licensing board recently found to be an admissible portion of a new contention challenging an applicant's LLRW storage-related COLA changes in which the intervenor contested the adequacy of the applicant's assertion that improved fuel efficiency would reduce the volume of Class B and Class C waste. *... In that instance, the adequacy claim concerned the accuracy of the information provided, as opposed to averring, as is the case here, that additional information was needed to correct an omission*." (emphasis added)).

[9] *Id.*

[10] *Nuclear Mgmt. Co., LLC* (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 328-29 (2006), *aff'd* CLI-06-17, 63 NRC 727 (2006); s*ee also Entergy Nuclear Vermont Yankee* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 195 (2006), *rev'd in part on other grounds,* CLI-07-16, 65 NRC 371 (2007); *see also In re Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC 163, 171-72 (2001) (Intervenor may not survive summary disposition by offering new information that changes an admitted contention from one of "omission" alleging that information is missing, to one challenging the adequacy of the previously introduced information).

[11] *In re Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 918-19, 950 (2008) ("Northern States' motion to strike is granted as follows: the Declaration of Christopher I. Grimes is struck in its entirely and all references to his declaration in the PIIC Reply are also struck. The Grimes Declaration contstitutes "new support" and therefore is not proper in a reply.").

prevailing concern with improper new arguments is not the particular pleading in which the new arguments are presented, but following the proper procedure for contention admissibility.[12]

The key consideration is that the petitioner/intervenor must present all bases for a contention when it is initially filed,[13] and may not at a later date "attempt to rehabilitate and to amend the original contention" without addressing the criteria for new and amended contentions.[14] "As the Commission has stressed, [the] contention admissibility and timeliness requirements 'demand a level of discipline and preparedness on the part of petitioners,' who *must* examine the publicly available material and set forth their claims and the support for their claims *at the outset*."[15] This principle is equally applicable to new evidence in response to a motion for summary disposition, and it is likewise well-established that a party may not expand the scope of the contention in order to oppose the motion for summary disposition without first following the procedural requirement to file an amended contention.[16] JIs cannot use their answer to the Motion for Summary Disposition as a conduit for correcting a deficient contention (or amending the same) contention.

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[12] *See, e.g. Entergy Nuclear Vermont Yankee* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC at 198-99; *In re La. Energy Servs., L.P.*, CLI-04-35, 60 NRC 619, 623 (2004).

[13] *In re La. Energy Servs., L.P.*, CLI-04-35, 60 NRC at 623.

[14] *Entergy Nuclear Vermont Yankee* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC at 198-99 ("[A]s a procedural matter, the relevant portions of NEC's reply … exceed what is permissible in a reply brief and therefore should be seen as an attempt to rehabilitate and to amend the original contention. The Commission has stated clearly that such attempts to amend contentions are impermissible in reply briefs. *NEC makes no effort to address the criteria for amended and new contentions in 10 C.F.R. § 2.309(f)(2).* The Board *therefore strikes* Mr. Gundersen's second declaration and those portions of NEC's reply brief that refer to it." (emphasis added)).

[15] *In re La. Energy Servs*., CLI-04-25, 60 NRC 223, 224-25 (2004) (emphasis added); *see also id.*

[16] *See, e.g., Exelon Nuclear Generation Co. and Entergy Operations, Inc*., (Pilgrim Nuclear Power Station,) LBP 07-13, 66 NRC __ (October 30, 2007) (slip op. at 16); *In re Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC at 171-72 (Intervenor can only raise new arguments regarding the adequacy of DEIS analysis by filing new or amended contentions); *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-04-9, 59 NRC 286, 292 (2004) (Intervenor "should have been well aware of the Board's expectation that late-filed contentions or late-filed amended contentions should be filed promptly following the issuance of any documents containing significant new or different information.").

In addition, arguments and evidence that are outside the scope of the contention as admitted cannot be reasonably anticipated by the movant for summary disposition and satisfy the requirements of 10 C.F.R § 2.323(c), which allows the moving party to reply, as permitted by the presiding officer, "in compelling circumstances, such as where the moving party demonstrates that it could not reasonably have anticipated the arguments to which it seeks leave to reply."

JIs' Response raises new issues that are neither within the scope of the original admitted contention nor the subject of an amended or supplemental contention. These new issues have never before been included as a basis for Safety-1 and should be excluded.

III. New Issues in the JIs' Response and Associated Evidence Outside Safety-1

A. Scope of Safety-1

Safety-1 began as a contention of omission, alleging that "in the event … a waste disposal facility is unavailable, the FSAR fails to demonstrate how SNC can comply with the NRC regulations."[17] After SNC responded to a request for additional information ("RAI"), indicating its intent to revise its FSAR to include information regarding SNC's LLRW storage plans should offsite disposal no longer be available, JIs sought to amend Safety-1. Specifically, JIs described in their motion to amend three alleged insufficiencies in SNC's new information:

> The revisions contain only bare assurances that the design of the storage facility will comply with NRC guidance documents. A design plan is not provided.
>
> The revisions fail to set forth the site of the storage facility. Instead, SNC states without justification, analysis, or proof that "the storage facility will be sited such that it could be sized to accommodate storage over the life of the plant and designed to accommodate future expansion," "the location of the storage pad would meet dose rate criteria," and "the storage pad location would avoid natural or engineered surface drainage and be located at an elevation with regard to the site's design bases flood level."

[17] Order Admitting Safety-1, at 22; Petition, at 14.

> The revisions wholly omit a discussion of the health impacts on SNC employees from the additional LLRW storage.[18]

Significantly, the JIs did not support Safety-1 with evidence or affidavits and did not question the validity of SNC's off-site storage plans or on-site storage plan – only the level of detail provided for the on-site storage plan. The Board granted the motion to amend Safety-1 as a legal contention that raised only the question of "Whether the agency's regulatory requirements governing the content of COLAs mandate that the SNC FSAR contain" the three categories of information listed by JIs.[19]

When JIs sought to amend Safety-1, SNC argued that Safety-1 ought not be admitted because it lacked any evidentiary support as required by 10 C.F.R. § 2.309(f)(1).[20] In response to SNC's challenge that Safety-1 lacked adequate support in the form of affidavits from expert witnesses or otherwise, the Board gave JIs the benefit of the doubt and held that the deficiency alleged by JIs was legal in nature, rather than factual, making the requirement for expert support inapplicable.[21]

JIs' Response attempts to expand Safety-1 and create disputes of fact not even alluded to in either the original or amended contention (*i.e.*, whether offsite storage is available, and whether onsite storage is a safe practice). JIs have not sought to amend Safety-1 to include these arguments, notwithstanding that the proposed storage measures that the arguments seek to challenge were fully evident in both the RAI response upon which Safety-1 is based and the

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[18] JIs' Motion to Amend Contention Safety-1, Docket Nos. 52-025 and 52-026 (Oct. 23, 2009) at 4-5.

[19] Order Amending Safety-1, at 8.

[20] [SNC] Answer Opposing Motion to Amend Contention, Docket Nos. 52-025-COL and 52-026-COL (Nov. 6, 2009), at 8-9.

[21] "Although both SNC and the staff challenge Joint Intervenors contention amendment as lacking any supporting expert opinion or other factual basis under 10 C.F.R. § 2.309(f)(1)(v), *see* SNC Answer at 9-10, Staff Answer at 6-7, as the Commission recently noted regarding legal contentions, "requiring a petitioner to allege 'facts'" under section 2.309(f)(1)(v) . . . in support of a legal contention -- as opposed to a factual contention -- is not necessary." Order Amending Safety-1, at 8-9.

FSAR revisions, which were submitted to the NRC Staff in 2009.[22] Rather, JIs now attempt to inject new factual disputes and witness declarations into a purely legal contention. This is blatantly improper, and an untimely attempt to cure a defect in the contention that SNC raised in its response to the Motion to Amend the Contention on November 6, 2009.[23]

B. JIs' Improper and Untimely Arguments

1. JIs Attempt to Expand Safety-1 Into a Substantive Challenge to FSAR Information

After SNC moved for summary disposition on Safety-1's Board-defined legal issue, JIs for the first time argue not that SNC has failed to provide the required level of detail, but rather that "SNC's 'plan' for onsite LLRW storage materially deviates from applicable regulations and guidance."[24]

The entirety of this discussion is outside the scope of Safety-1, which did *not* allege incorrect or nonconforming information in the FSAR, but *only* an inadequate level of detail (allegedly missing information).[25] Further, the Board never contemplated, nor did SNC have any notice, that Safety-1 was a general attack on the practice of on-site storage. The question raised by the amended contention was one of regulatory interpretation (*i.e.,* whether a certain level or

[22] *See e.g., Exelon Nuclear Generation Co. and Entergy Operations, Inc*. (Pilgrim Nuclear Power Station), LBP 07-13, (slip op. at 16); *In re Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC at 171-72.

[23] *See In re Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC at 918-19, 950; *In re La. Energy Servs., L.P*., CLI-04-35, 60 NRC at 623.

[24] JIs' Response, at 4. For example, at page 4 of JIs' Statement of Disputed Facts, JIs argue for the first time about SNC's stated amount of Class B and C wastes, and what approximate amount will be dry and/or wet and offer an expert declaration on this subject. Additionally, JIs' expert declaration discusses the virtues of on-site storage generally, suddenly arguing about past experiences with outdoor storage at non-SNC sites, corrosion, and including gratuitous pictures of storage drums at non-SNC sites, apparently in some attempt to illustrate JIs' belief about the dangers of onsite storage. Joint Declaration of Arjun Makhijani and Diane D'Arrigo in Support of Intervenors' Opposition to Motion for Summary Disposition of Contention Safety-1, ¶ 20-23 ("Declaration").

[25] *See* Order Amending Safety-1, at 8 n.5.

amount of information is required).[26] Accordingly, the following paragraphs of the Declaration and citations to same in both the JIs' Response and the Statement of Disputed Facts, should be excluded from the record: 21 (partial), 22 (including Figures 1 and 2 and accompanying text), 23, 24, and the attached Spreadsheets. These exclusions are shown in Attachment A hereto. Alternatively, SNC should have the opportunity to respond to those out-of-scope arguments.

2. JIs Attempt to Change the Underlying Basis of Safety-1.

JIs argue, also for the first time, that "the Board should assume that LLRW will have to be stored onsite."[27] As support for this general statement, JIs offer an expert declaration to support the new argument that "one year is not nearly a sufficient period of time to accommodate the potential delay in the availability of off-site LLRW disposal capacity" and to support a new interpretation of the WCS and Studsvik licenses to store LLRW.[28] Safety-1 frames the potential additional detail about SNC's plans as contingent, specifically "in the event an off-site waste disposal facility remains unavailable."[29] Neither the contention as alleged nor admitted even mention the issue of off-site *storage capacity* for LLRW – only the potential lack of *disposal options*. JIs have turned this narrow issue on its head by attacking the availability of all SNC's listed off-site storage options in an attempt to have the Board find that SNC may not rely on plans for temporary off-site storage in its COLA.[30]

Specific to the current discussion regarding the scope of Safety-1, the Board certainly gave no indication when it amended Safety-1 that it was considering the issue so as to delve into off-site storage, since all three of the listed categories of information which are the subject of

[26] *See In re Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-01-23, 54 NRC at 171-72.

[27] JIs' Response, at 10.

[28] JIs' Statement of Disputed Facts, at 6, 7.

[29] Order Amending Safety-1, at Appendix A.

[30] *Compare Nuclear Mgmt. Co., LLC* (Palisades Nuclear Plant), LBP-06-10, 63 NRC at 328-29.

Safety-1 deal exclusively with information regarding an *onsite* storage facility.[31] JIs' answer to the motion for summary disposition is not a vehicle to create an untimely, unnoticed new contention. Accordingly, the following paragraphs of the Declaration and citations to same in both the JIs' Response and the Statement of Disputed Facts, should be excluded: 4 (partial), 6, 7, 9, 10, 11, 12, 13, 14, 15 (partial), 16 (partial), 17, 18, 19, 20, and the Spreadsheets. These exclusions are shown in Attachment A. Again, in the alternative, should the Board not grant the instant Motion to Exclude, SNC should be afforded the opportunity to respond to JIs' new contention.

IV. CONCLUSION

For the foregoing reasons, SNC moves to exclude the above-identified portions of JIs' Response to Motion for Summary Disposition of Contention Safety-1. In the alternative, SNC requests leave to file a reply out of time to address the new material.

Respectfully submitted,

Signed (electronically) by M. Stanford Blanton

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[31] Order Amending Safety-1, at Appendix A ("A design plan for the LLRW storage facility for the two new proposed units… A specific designation of where on the VEGP site the storage facility will be located… A discussion of the health impacts on SNC employees from the additional LLRW storage associated with the two new proposed units.").

COUNSEL FOR
SOUTHERN NUCLEAR OPERATING COMPANY

Dated this 15th day of March, 2010.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	**Docket Nos. 52-025-COL and 52-026-COL**
Southern Nuclear Operating Company	)	
	)	
(COL Application for Vogtle Electric Generating Plant, Units 3 and 4)	)	**March 15, 2010**

CERTIFICATE OF SERVICE

I hereby certify that copies of SOUTHERN NUCLEAR OPERATING COMPANY'S MOTION TO EXCLUDE PORTIONS OF JOINT INTERVENORS' RESPONSE TO MOTION FOR SUMMARY DISPOSITION OF CONTENTION SAFETY-1 OR, IN THE ALTERNATIVE, FOR LEAVE TO REPLY in the above-captioned proceeding have been served by electronic mail as shown below, this 15th day of March, 2010, and/or by e-submittal.

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*And upon any other persons designated on the official service list compiled by the Nuclear Regulatory Commission in this proceeding.

(Original signed by M. Stanford Blanton)

M. Stanford Blanton
Counsel for Southern Nuclear Operating Company

Dated this 15th day of March, 2010.

ATTACHMENT A

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	**Docket Nos. 52-025 and 52-026**
Southern Nuclear Operating Company, Inc.	)	
	)	
(COL Application for Vogtle Electric Generating Plant, Units 3 and 4)	)	**March 4, 2010**

JOINT DECLARATION OF ARJUN MAKHIJANI AND DIANE D'ARRIGO IN SUPPORT OF INTERVENORS' OPPOSITION TO MOTION FOR SUMMARY DISPOSITION OF CONTENTION SAFETY-1

Under penalty of perjury, Arjun Makhijani and Diane D'Arrigo do hereby state as follows:

Statement of Qualifications

1. (Makhijani only) My name is Arjun Makhijani. I am employed by the Institute for Energy and Environmental Research (IEER) as President and Senior Engineer. My business address is 6935 Laurel Avenue, Suite 201, Takoma Park, MD 20912. I hold a Ph.D. in Engineering from the University of California at Berkeley, where I specialized in the application of plasma physics to controlled nuclear fusion. I have over 25 years of experience in the technical, policy and economic issues relating to radioactive waste storage and disposal, including low level radioactive waste (LLRW). I have authored and co-authored articles, reports, and books on the subject of radioactive waste disposal. I have testified as an expert on nuclear waste issues before the Nuclear Regulatory Commission (NRC). A copy of my *curriculum vitae* is attached as Exhibit 1.

2. (D'Arrigo only) My name is Diane D'Arrigo. I am employed by Nuclear Information and Resource Service as Radioactive Waste Project Director. My business address is 6930 Carroll Ave., Takoma Park, Maryland 20912. I have over 25 years of experience in the technical, policy and economic issues relating to LLRW storage and disposal. I have spoken publicly and published articles on these topics. I have testified as an expert on nuclear waste issues before the NRC. A copy of my *curriculum vitae* is attached as Exhibit 2.

Purpose of Declaration

3. The purpose of our declaration is to provide factual support for Joint Intervenors' opposition to Southern Nuclear Company's (SNC's) motion for summary disposition of

Contention Safety-1 regarding SNC's inadequate provisions for onsite storage of so-called "low-level" radioactive waste (LLRW).

Operational Status of LLRW Disposal Sites in the United States

4. Currently, there are only two operating commercial facilities that dispose of Classes A, B, and C LLRW: US Ecology at Hanford, near Richland, Washington; and EnergySolutions in Barnwell, South Carolina. EnergySolutions in Clive, Utah, is licensed to dispose of Class A waste and cannot take Class B or C. The Richland and Barnwell facilities can take LLRW only from the Northwest, Rocky Mountain, and Atlantic compacts. WCS has a license to store a limited amount of waste (see below) but can dispose of waste only from the Texas-Vermont compact ~~when its license is approved and it overcomes other outstanding hurdles (see below).~~

Limitations on the Disposal Capacity of WCS

5. WCS holds a license (License R04100) which permits it to dispose of LLRW generated inside the Texas-Vermont LLRW Disposal Compact. The facility is not authorized to accept LLRW from outside the two states that comprise the Compact. The Texas-Vermont Compact Commission is currently considering whether to adopt rules that could allow the importation of additional LLRW from outside the Compact. Proposed Rule for 31 TAC §§ 675.21-675.23, published at 35 Tex. Reg. 1028 on February 12, 2010.

6. ~~WCS is not currently disposing of commercial LLRW, because License R04100 has several conditions which remain unfulfilled. According to the regulator, the Texas Commission on Environmental Quality (TCEQ), "[c]onstruction may not begin until several preconstruction license conditions are completed and approved by the executive director. Once approved construction is complete, additional conditions of the license must be met prior to commencement of disposal."[1]~~

7. ~~Several pending lawsuits create uncertainty about when and under what terms the WCS facility may open for disposal of LLRW. *See Sierra Club v. Texas Commission on Environmental Quality,* No. D-1-GN-09-000660 (250th Dist. Ct., Travis County, Texas. March 2, 2009); Sierra Club v. Texas Commission on Environmental Quality, No. D-1-GN-09-000894 (98th Dist. Ct., Travis County, Texas. March 19, 2009); Sierra Club v. Texas Commission on Environmental Quality, No. D-1-GN-09-003492 (200th Dist. Ct., Travis County, Texas. October 9, 2009); Sierra Club v. Texas Commission on Environmental Quality, No. D-1-GN-09-004020 (261st Dist. Ct., Travis County, Texas. November 24, 2009). An Andrews County election for the issuance of a bond to build the WCS facility is also under legal challenge. *Pryor vs Dolgener, County Judge of Andrews County*, No. 08-09-00284 CV, on appeal to the Texas 8th Court of Appeals from the 109th Judicial District of Andrews County Texas, Cause No. 17,988.~~

Limitations on Storage Capacity of WCS

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[1] ~~From TCEQ website: Waste Control Specialists LLC License Application for Low-Level Radioactive Waste Disposal, Current Status of this Application http://www.tceq.state.tx.us/permitting/radmat/licensing/wcs_license_app.html#wcs_status~~

8. WCS also holds a license for the processing and storage of LLRW (License R04971). The License was due to expire 2004, but it is still in effect because of WCS' timely application for renewal. WCS' renewal application currently is under review by the TCEQ.

9. ~~Even if License R04971 for storage is renewed with the present terms, there are limitations to the quantity of LLRW that can be stored by WCS and the duration for which it can be stored.~~

10. ~~For instance, paragraph 23.B of the License requires that within 365 days of arrival at WCS, all LLRW must be placed in interim storage or transferred to an authorized recipient.~~

11. ~~Paragraphs 7A and 7C of the License also limit LLRW storage at WCS to 2,255,000 curies. Given that WCS is the only offsite facility available for storage of Class B and C waste, that radioactivity limit could be exceeded in just a few years by Class B and C waste that is being generated by facilities without access to disposal. We believe that the storage capacity at WCS could be exceeded well before Vogtle Units 3 and 4 begin operation.~~

12. ~~The operators of Vogtle will not be the only ones to need storage for Class B and C LLRW. While the Clive, Utah, site can accept Class A LLRW from across the country, only the generators in the Northwest, Rocky Mountain and Atlantic Compacts (which have access to the Richland and Barnwell facilities for LLRW disposal) currently have a disposal path for Class B and C waste. If we assume that a license will be granted to WCS for commercial waste disposal and that WCS will be meet all the other conditions and overcome all legal challenges – which is by no means assured – then Texas and Vermont Class B and C waste will also have a disposal path. The remaining states will be in a situation where sending Class B and C waste to storage will become an increasingly problematic. Hence the viability of the applicant's proposal to store waste at WCS must be analyzed in the context of all Class B and C generators in all states outside of the ones with a disposal path. We call these no-disposal-path states for convenience in the rest of this declaration.~~

13. ~~We looked at the amounts of Class B and C LLRW sent for disposal from nuclear generators in the no-disposal-path states. We used past data as posted on the DOE's Manifest Information Management System (MIMS) website, which allows computation of data for specific sites, volumes and radioactivity as well as specific compacts. All sites except Barnwell have been closed to the no-disposal-path states in recent years. On July 1, 2008, the Barnwell site was closed to these states as well. The total amount of Class B and C waste disposed of at Barnwell by these states over an eight-year period ending on June 30, 2008 was about 4.6 million curies, or about 580,000 curies per year. About 95 percent of this radioactivity came from utilities (spreadsheets attached). At this rate, even if there were no other generators, the storage capacity of the WCS site would run out in just under four years. If at least some of the recently submitted license applications are approved and result in new operating reactors, the storage capacity would run out sooner, in the absence of a disposal site for the no-disposal-path states.~~

14. ~~Based on the facts and available data, we conclude that the assumption that offsite storage space will be available for the new reactors for the license period or anything close to it at WCS is unwarranted.~~

Limitations on the Storage Capacity of Studsvik

15. Studsvik holds Material License R-86011-E17 for the processing of LLRW. The Studsvik License contains provisions that rule out the use of that site for long-term storage. Specifically, Paragraph 17 of the License limits the duration of the storage period to 365 days. Paragraph 24 requires that Studsvik "establish in every contractual obligation relating to radioactive materials the ability to return the radioactive materials, processed or unprocessed, to the prior licensed or exempt processor." Thus even if Studsvik takes title to the LLRW, it has the right to send it back to the generator and, in any event, may not keep it for more than a year. In view of these limitations, Studsvik is not a plausible option for storage of accumulating Class B and C wastes for existing or new reactors.

Delays and Limitations on LLRW Disposal Capacity

16. In FSAR Section 11.4.2.4.3, SNC claims that it has the capacity to store Vogtle Units 3 and 4's LLRW onsite for a year. But one year is not nearly a sufficient period of time to accommodate the potential delay in the availability of offsite LLRW disposal capacity. Currently, there is no LLRW disposal facility that can accept Class B and C radioactive waste from Plant Vogtle. WCS disposal is not an option that SNC can rely on because WCS is not accepting LLRW from any state at this time and because under its current disposal license it cannot accept LLRW from outside the Texas-Vermont Compact.

17. Even if WCS begins disposing of LLRW and even if it receives permission to accept LLRW from outside the Texas-Vermont Compact, it cannot be relied on for disposal of LLRW beyond the immediate future due to its limited capacity.

18. The licensed disposal capacity of the WCS commercial facility is 2.31 million cubic feet. The Compact States (Texas and Vermont) have estimated their combined need for LLRW disposal under the Compact at 6 million cubic feet: 5 million for Texas and one million for Vermont. Adopted Rules, 34 Tex. Reg. 6341 (September 11, 2009); Vermont Health and Safety Code Chapter 403, Sec. 3.04 (11).[2] The total needed storage capacity of 6,000,000 cubic feet, as estimated by the Compact States, exceeds currently licensed capacity under the Compact. Therefore, the WCS facility does not have the capacity to dispose of LLRW generated at Plant Vogtle Units 3 and 4 or at any reactor outside the Texas-Vermont Compact. While WCS could in theory apply for a license modification to allow for more waste disposal, basing a disposal strategy on such an assumption for an out-of-compact state would be speculative at best, since WCS does not even have an operating license for disposal for a much smaller amount of commercial LLRW within the Texas-Vermont Compact.

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[2] The Vermont Code states: "The shipments of low-level radioactive waste from all nonhost party states shall not exceed 20 percent of the volume estimated to be disposed of by the host state during the 50-years period." The Proposed Volume Rule states: "Vermont indicated that its needs would probably meet or exceed 1,000,000 cubic feet of capacity based on observed experiences during decommissioning of the Maine Yankee generating facility. There are similar decommissioning requirements in Vermont that indicate the volume could be similar to that generated in the Maine decommissioning process." 34 Tex. Reg. 4279.

19. Because of the longevity of much of the radioactivity of LLRW and the history of problems at closed LLRW disposal sites, new facilities have been and will continue to be extremely difficult, time-consuming, and expensive. Since the 1980 passage of the Low Level Radioactive Waste Policy Act passed, there have been many siting efforts that have yielded no new full service facilities. According to a 1999 GAO Report: "[s]tates acting alone or within Compacts of two or more, have collectively spent $600 million over the last 18 years attempting to find and develop about 10 sites for disposing of commercially generated low-level radioactive wastes." Yet, states' efforts to license new facilities "have come to a standstill." GAO/RCED-99-238 *Low-Level Radioactive Wastes: States Are Not Developing Disposal Facilities,* page 26.

Storage Onsite

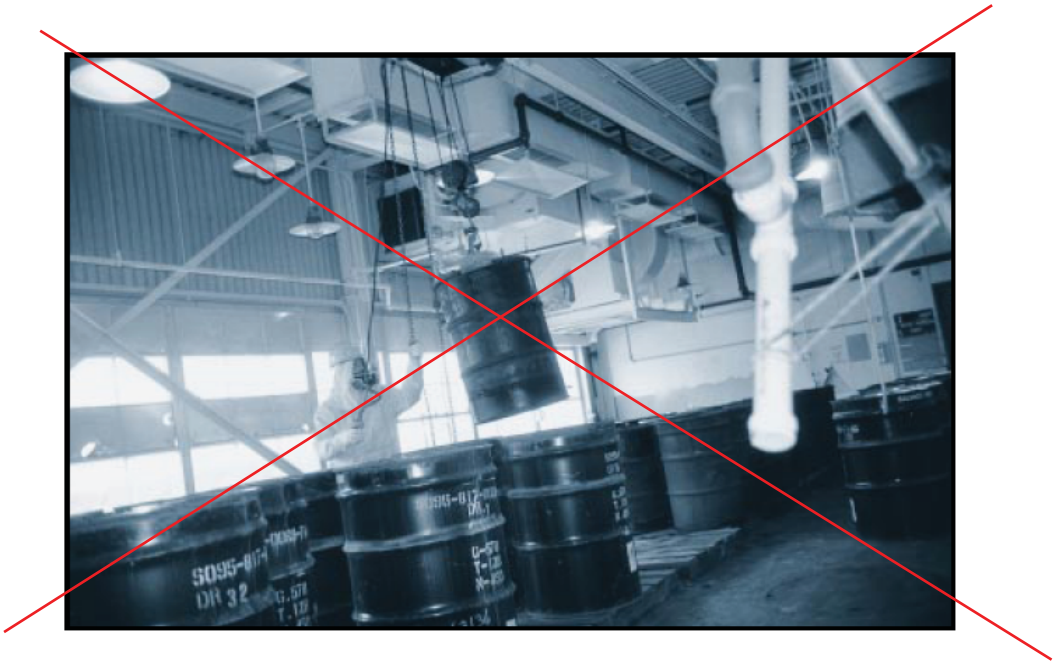
20 There is no offsite disposal available for SNC at present and none is on the horizon. The above analysis shows that SNC does not have a reasonably assured path for long-term offsite storage. This leaves long-term onsite storage as the only remaining option.

21. SNC proposed to construct additional storage capacity onsite in the event that no offsite option is available. Normally, onsite storage capacity for LLRW is very limited since the waste is periodically sent off for disposal. All reactors, including the AP1000 have provision for such limited storage. In this case, SNC is planning to construct an additional outdoor storage site that could accommodate accumulating wastes from many years and even decades of operation.

22. Outdoor storage of large amounts of waste representing years and decades of accumulation has been carried out at Department of Energy (DOE) sites, but not at reactor sites. The experience of such outdoor storage has often been poor. The photographs below (Figures 1 and 2) show corroded drums as well as the repackaging that has been necessary at DOE sites as a direct result of outdoor storage. The figures are from two different sites. Such handling and repackaging can create additional worker exposures. While SNC may claim that its approach will have greater integrity, it has provided no radiological data to show that is proposed storage approach will be safe, or that it would last for decades without corrosion or other problems that could result in exposures.

"Figure 1: Empty drums used for storing waste await treatment and disposal at Oak Ridge. These drums corroded prematurely when a 1987 waste-stabilization project failed to follow guidelines for combining waste sludge with cement. *K-1417 Drum Storage Yards, Pond Waste Management Project, Oak Ridge, Tennessee. January 10, 1994"*

Source: U.S. Department of Energy. *Closing the Circle on the Splitting of the Atom: The Environmental Legacy of Nuclear Weapons Production in the United States and What the Department of Energy is Doing About It.* DOE/EM-0266. Washington, D.C.: DOE Office of Environmental Management, Office of Strategic Planning and Analysis, January 1995. Links on the Web at http://ndep.nv.gov/lts/close/circle.htm, p. 6. Hereafter DOE 1995.



"Figure 2: A Fernald worker overpacks rusting 55-gallon drums of low-level mixed waste by sealing them inside larger new 85-gallon drums. Some 50,000 deteriorating drums of Fernald waste stored outdoors for many years are being overpacked in a project that began in the late 1980s. *Plant 5, formerly the Metals Production Plant, Fernald Environmental Management Project, Fernald, Ohio. December 28, 1993."*

Source: DOE 1995, op cit, p. 53.

23. ~~Storage of Class B and C waste generated over decades at a reactor site is without precedent, as is storage of such wastes in an outdoor facility that would be needed once the short-term storage building runs out of room. Experience elsewhere of outdoor storage has often been poor. We do not claim that SNC will necessarily repeat this unfortunate experience. But in view of the unprecedented nature of the storage that is proposed and the fact that it is would be outdoor storage, it is essential that SNC provide the design of the storage facility as part of the COLA and demonstrate its safety and long-term integrity as part of the COLA process.~~

Estimated Volume of LLRW Generated by Vogtle Units 3 and 4

24. ~~In Section 11.4.2.4.3, SNC predicts that all Class B and C waste will be wet. The statement is contradicted by § 11.4.1.3 of the AP1000 DCD, which asserts that "[t]he expected disposal volumes of wet and dry wastes are approximately 547 and 1417 cubic feet per year, respectively. . . ." During reactor operations, components, parts, piping, hardware can require replacement. Activated metal components and parts – which do not constitute "wet" LLRW – would be expected to comprise some portion of the Class B and/or C wastes during operations and certainly as part of decommissioning. For instance, a PWR's lower support columns and upper core grid plate will be Class C LLRW upon decommissioning and the upper core barrel, miscellaneous internals and lower core forging will be Class B waste. Resnikoff, *Living Without Landfills*" A Special Report by the Radioactive Waste Campaign at 48 (1987).~~

We declare that the foregoing facts are true and correct to the best of our knowledge and that the statements of opinion are based on our best professional judgment.

Diane D'Arrigo — March 4, 2010
Date

Arjun Makhijani — March 4, 2010
Date

Spreadsheets

Source:
http://mims.apps.em.doe.gov/Report_WasteClass_GenCat.asp

Barnwell disposal, non-disposal path states, July 1, 1999 to June 30, 2008

Disposal Site	Year Received	Generator Class	Total Volume (ft3)	Total Activity (curies)	Class A Volume (ft3)	Class A Activity (curies)	Class B Volume (ft3)	Class B Activity (curies)	Class C Volume (ft3)	Class C Activity (curies)
Barnwell	1999	Academic	947.16	9.72	890.42	3.19	28.01	4.99	28.73	1.53
Barnwell	1999	Government	6,506.07	5,370.60	6,104.01	85.83	104.78	4,248.52	297.28	1,036.26
Barnwell	1999	Industry	6,000.99	477.62	4,001.39	54.04	1,733.75	279.33	265.85	144.25
Barnwell	1999	Medical	293.15	3.02	280.19	0.63	0	0	12.96	2.39
Barnwell	1999	Utility	58,705.02	153,652.40	47,744.24	8,345.06	7,324.13	7,088.29	3,636.65	138,219.05
Barnwell	2000	Academic	1,859.45	42.32	1,804.30	33.5	0	0	55.15	8.83
Barnwell	2000	Government	7,733.88	253.64	7,391.79	40.28	70.3	119.65	271.79	93.71
Barnwell	2000	Industry	12,439.93	31,244.25	8,444.05	140.69	3,004.41	30,721.67	991.47	381.89
Barnwell	2000	Medical	195.8	4.88	159.23	0.36	0.68	0	35.89	4.51
Barnwell	2000	Utility	75,215.80	565,228.29	56,380.03	11,028.32	11,653.22	18,067.77	7,182.55	536,132.20
Barnwell	2001	Academic	1,175.54	295.38	1,107.55	11.13	9.6	270.67	58.39	13.59
Barnwell	2001	Government	7,250.36	918.38	6,860.61	94.73	276	148.42	113.75	675.23
Barnwell	2001	Industry	4,794.29	2,267.38	3,290.29	75.25	222.55	1,039.80	1,281.45	1,152.33
Barnwell	2001	Medical	167.33	3.27	143.09	0.35	0.68	0	23.56	2.92
Barnwell	2001	Utility	68,301.55	396,440.05	48,646.36	4,866.74	12,547.89	13,395.40	7,107.30	378,177.91
Barnwell	2002	Academic	758.58	311.04	515.72	16.32	47.5	211.82	195.36	82.9
Barnwell	2002	Government	8,203.53	560.8	7,450.53	105.62	390	245.06	363	210.11
Barnwell	2002	Industry	2,909.69	4,059.78	1,745.49	35.44	266.17	700.43	898.03	3,323.91
Barnwell	2002	Medical	73.79	1.85	50.55	0.08	0	0	23.24	1.76
Barnwell	2002	Utility	24,459.03	112,299.99	11,572.84	3,497.64	7,013.25	9,750.77	5,872.94	99,051.58
Barnwell	2003	Academic	187.6	2.73	110.8	0.67	0.7	0	76.1	2.06
Barnwell	2003	Government	5,088.69	88,050.09	4,791.57	71.25	231.4	87,974.14	65.72	4.7
Barnwell	2003	Industry	1,623.81	25,520.53	971.37	87.94	153	25,179.22	499.44	253.37
Barnwell	2003	Medical	77.44	14.45	27.5	0.07	0	0	49.94	14.38
Barnwell	2003	Utility	48,327.10	473,547.69	19,839.45	2,870.23	9,482.62	14,108.95	19,005.03	456,568.51
Barnwell	2004	Academic	71.08	7.74	32.62	0.18	0	0	38.46	7.56
Barnwell	2004	Government	7,194.55	10,753.49	5,641.94	36.22	655.81	45.54	896.8	10,671.73
Barnwell	2004	Industry	1,026.45	847.4	521.38	0.8	138.7	275.33	366.37	571.27
Barnwell	2004	Medical	24.68	6.61	1.36	0	0	0	23.32	6.61

Barnwell	2004	Utility	25,773.88	282,922.80	8,853.65	2,928.72	11,124.14	17,104.12	5,796.09	262,889.97
Barnwell	2005	Academic	55.54	16.36	4.17	0	0	0	51.37	16.36
Barnwell	2005	Government	5,474.60	66.4	5,396.87	49.27	38.2	13.42	39.53	3.72
Barnwell	2005	Industry	880.11	23,995.31	230.24	3	275.04	23,089.53	374.83	902.77
Barnwell	2005	Medical	58.51	5.89	16.74	0.03	17	0.05	24.77	5.8
Barnwell	2005	Utility	24,458.96	431,096.35	11,847.93	3,620.21	7,080.84	12,390.52	5,530.19	415,085.62
Barnwell	2006	Academic	197.7	956.87	8.78	0.01	18.7	155.11	170.22	801.75
Barnwell	2006	Government	6,145.02	204	6,011.51	134.31	61.2	45.44	72.31	24.25
Barnwell	2006	Industry	778.52	1,464.88	476.84	0.61	69.13	67.44	232.55	1,396.82
Barnwell	2006	Medical	15.07	4.96	0.14	0	0.68	0	14.25	4.96
Barnwell	2006	Utility	20,440.20	293,659.97	5,615.39	2,395.56	8,068.32	8,730.79	6,756.49	282,533.62
Barnwell	2007	Academic	28.3	2.15	1.36	0	0	0	26.94	2.15
Barnwell	2007	Government	4,722.53	138.44	4,613.25	88.38	87.8	40.67	21.48	9.39
Barnwell	2007	Industry	506.53	12,147.22	37.17	0.86	178.12	10,632.72	291.24	1,513.64
Barnwell	2007	Medical	41.77	33.73	0	0	7.5	23.5	34.27	10.23
Barnwell	2007	Utility	25,294.78	1,028,993.14	4,052.27	1,642.57	9,078.29	11,453.85	12,164.22	1,015,896.72
Barnwell	2008	Academic	59.02	281.91	0	0	0	0	59.02	281.91
Barnwell	2008	Government	2,476.70	381.19	2,269.08	54.09	28	14.7	179.62	312.4
Barnwell	2008	Industry	645.64	13,709.47	8.28	0.6	243.96	11,303.54	393.4	2,405.32
Barnwell	2008	Medical	68.86	24.7	0	0	0	0	68.86	24.7
Barnwell	2008	Utility	13,402.29	723,493.36	1,839.62	1,323.14	4,064.34	6,562.37	7,498.33	715,607.85
		Total:	483,136.87	4,685,794.49	297,803.96	43,743.94	95,796.41	315,503.54	89,536.50	4,326,547.01

Barnwell disposal, non-disposal path states, July 1, 1999 to June 30, 2008 for utilities only

Disposal Site	Year Received	Generator Class	Total Volume (ft3)	Total Activity (curies)	Class A Volume (ft3)	Class A Activity (curies)	Class B Volume (ft3)	Class B Activity (curies)	Class C Volume (ft3)	Class C Activity (curies)
Barnwell	1999	Utility	58,705.02	153,652.40	47,744.24	8,345.06	7,324.13	7,088.29	3,636.65	138,219.05
Barnwell	2000	Utility	75,215.80	565,228.29	56,380.03	11,028.32	11,653.22	18,067.77	7,182.55	536,132.20
Barnwell	2001	Utility	68,301.55	396,440.05	48,646.36	4,866.74	12,547.89	13,395.40	7,107.30	378,177.91
Barnwell	2002	Utility	24,459.03	112,299.99	11,572.84	3,497.64	7,013.25	9,750.77	5,872.94	99,051.58
Barnwell	2003	Utility	48,327.10	473,547.69	19,839.45	2,870.23	9,482.62	14,108.95	19,005.03	456,568.51
Barnwell	2004	Utility	25,773.88	282,922.80	8,853.65	2,928.72	11,124.14	17,104.12	5,796.09	262,889.97
Barnwell	2005	Utility	24,458.96	431,096.35	11,847.93	3,620.21	7,080.84	12,390.52	5,530.19	415,085.62
Barnwell	2006	Utility	20,440.20	293,659.97	5,615.39	2,395.56	8,068.32	8,730.79	6,756.49	282,533.62
Barnwell	2007	Utility	25,294.78	1,028,993.14	4,052.27	1,642.57	9,078.29	11,453.85	12,164.22	1,015,896.72
Barnwell	2008	Utility	13,402.29	723,493.36	1,839.62	1,323.14	4,064.34	6,562.37	7,498.33	715,607.85
		Total:	384,378.61	4,461,334.04	216,391.78	42,518.19	87,437.04	118,652.83	80,549.79	4,300,163.03