

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

Before the Commission

In the Matter of	)	Docket Nos. 50-327-LR
	)	50-328-LR
TENNESSEE VALLEY AUTHORITY	)	
	)	ASLBP No. 13-927-01-LR-BD01
(Sequoyah Nuclear Plant, Units 1 and 2)	)	
	)	
In the Matter of	)	Docket Nos. 52-014-COL
	)	52-015-COL
TENNESSEE VALLEY AUTHORITY	)	
(Bellefonte Nuclear Power Plant, Units 3 and 4)	)	
	)	
In the Matter of	)	Docket No. 50-391-OL
	)	
TENNESSEE VALLEY AUTHORITY	)	
(Watts Bar, Unit 2)	)	

**TENNESSEE VALLEY AUTHORITY’S ANSWER OPPOSING  
PETITION TO SUSPEND REACTOR LICENSING DECISIONS AND REACTOR  
RE-LICENSING DECISIONS PENDING COMPLETION OF RULEMAKING  
PROCEEDING REGARDING ENVIRONMENTAL IMPACTS OF HIGH-DENSITY  
POOL STORAGE OF SPENT FUEL AND MITIGATION MEASURES**

**I. INTRODUCTION**

Pursuant to 10 C.F.R. § 2.323(c) and the Commission’s order dated March 4, 2014, Tennessee Valley Authority (“TVA” or “Applicant”) respectfully submits its answer to the “Petition to Suspend Reactor Licensing Decisions and Reactor Re-Licensing Decisions Pending Completion of Rulemaking Proceeding Regarding Environmental Impacts of High-Density Pool Storage of Spent Fuel and Mitigation Measures” (“Petition”), which the Blue Ridge Environmental Defense League (“BREDL”) filed in the Sequoyah license renewal proceeding and Bellefonte combined license application proceeding on February 27, 2014; and, which, the

Southern Alliance for Clean Energy (“SACE”)<sup>1</sup> filed in the Watts Bar Unit 2 operating license proceeding on February 27, 2014. TVA submits that the Petition should be denied because (1) it is untimely; (2) the Petition does not meet the requirements to suspend or stay licensing decisions; and (3) the issues raised by the Petition are not new and significant information, are being addressed (in a different context) in the waste confidence generic environmental impact statement (“GEIS”) or have been addressed in the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (2013) (“License Renewal GEIS”), NUREG-1437, Rev. 1.

The Commission considers the suspension of licensing proceedings a “drastic” action that is not warranted absent “immediate threats to public health and safety.” AmerGen Energy Co., LLC et al. (Oyster Creek Nuclear Generating Station et al.), CLI-08-23, 68 N.R.C. 461, 484 (2008); Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 N.R.C. 151, 173-74 (2000). As discussed below, the Petition makes no claims of “immediate threats to public health and safety.” There is no basis, therefore, for staying the final decisions in these proceedings. The License Renewal GEIS, recently revised by the Commission, addresses generically the environmental impact of spent fuel storage on site during the period of extended operation consistent with the NRC Staff analyses referenced in the Petition.

Moreover, the relief requested in the Petition is currently unnecessary. There is adequate time for the Commission to address the rulemaking petition. The Commission’s decision in Calvert Cliffs Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 N.R.C. 63 (2012), ordered waste confidence contentions held in abeyance in the above-captioned proceedings and no final decision will issue until those contentions are addressed. The Commission has recently stated that it will provide further direction regarding those pending

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<sup>1</sup> BREDL and SACE are referred to collectively herein as “Petitioners.”

waste confidence contentions concurrent with the issuance of the waste confidence final rule.

Tennessee Valley Authority (Sequoyah Nuclear Plant, Units 1 and 2), CLI-14-03, \_\_\_ N.R.C. \_\_\_, slip op. at 8-9 (Feb. 12, 2014).

## **II. BACKGROUND**

### **A. Procedural Status of Pending Adjudicatory Proceedings**

#### *1. Sequoyah License Renewal Proceeding under 10 C.F.R. Part 54*

In the license renewal proceeding for Sequoyah Nuclear Plant Units 1 and 2, three petitioners, including BREDL, petitioned for leave to intervene and requested a hearing on eight proposed contentions. The Atomic Safety and Licensing Board (“ASLB”) issued an order granting standing only to BREDL, denying seven of the contentions and holding the consideration of the admissibility of the “environmental-related portion” of one contention related to waste confidence in abeyance based on the Commission’s direction in Calvert Cliffs. Tennessee Valley Authority (Sequoyah Nuclear Plant, Units 1 and 2), LBP-13-08, 78 NRC 1 (2013). Both the applicant and BREDL appealed the Board’s ruling. The Commission issued a decision dismissing both appeals as not yet ripe, but stating that the Commission “will provide further direction regarding pending waste confidence contentions concurrent with issuance of the final rule.” Sequoyah, CLI-14-03, \_\_\_ N.R.C. \_\_\_, slip op. at 8-9.

A draft supplemental environmental impact statement is not expected to be issued for the license renewal proceeding until July 2014, and a final supplemental environmental impact statement is not expected to be issued until March 2015.

#### *2. Watts Bar Unit 2 Proceeding under 10 C.F.R. Part 50*

In July 2009, SACE, the Tennessee Environmental Council, the Sierra Club, We the People, and BREDL filed a request for a hearing and petition to intervene in the NRC administrative process reviewing TVA's application for an operating license for Watts Bar Unit 2.

In November 2009, the ASLB granted SACE's request for hearing, admitted two of SACE's seven contentions, and denied the request for hearing submitted on behalf of the other four petitioners. The ASLB subsequently dismissed one contention.

In July 2012, SACE petitioned for the admission of a new, late-filed contention regarding waste confidence. Consideration of the admissibility of this contention is being held in abeyance pursuant to the Commission's order in Calvert Cliffs. In July 2013, SACE filed a motion to withdraw its only other contention. The ASLB granted the motion, leaving only the potential waste confidence contention.

The NRC Staff "now estimates May of 2014 for the publication of its final supplement to NUREG-0847, Safety Evaluation Report Related to the Operation of Watts Bar Nuclear Plant, Units 1 and 2, (June 1982). However, the Staff anticipates that additional supplements to NUREG-0847 may be issued during the time period that Watts Bar Unit 2 construction remains uncompleted (i.e. through December of 2015)." "NRC Staff's March 2014 Bimonthly Report Regarding the Schedule for Review of the Watts Bar Nuclear Plant Unit 2 License Application," dated March 4, 2014 (ADAMS Accession No. ML14063A078).

### *3. Bellefonte License Proceeding under 10 C.F.R. Part 52*

In June 2008, Bellefonte Efficiency and Sustainability Team ("BEST"), BREDL, and SACE submitted a joint petition for intervention and a request for a hearing. The ASLB denied standing to BEST and admitted four of the 20 contentions submitted by BREDL and SACE. The NRC reversed the ASLB's decision to admit two of the four contentions, leaving only two contentions to be litigated in a future hearing. In January 2012, TVA notified the ASLB that the NRC had placed the combined license application in "suspended" status indefinitely at TVA's request, and TVA requested that the ASLB hold the proceeding in abeyance. Because the review

of the application is suspended, there has not yet been a draft environmental impact statement issued and there is no target date for doing so.

In July 2012, BREDL petitioned for the admission of another new, late-filed contention stemming from the D.C. Circuit's order vacating the waste confidence decision. Consideration of the admissibility of this contention is being held in abeyance pursuant to the Commission's Calvert Cliffs order.

**B. Staff Evaluation and Recommendation for Japan Lessons-Learned Tier 3 Issue on Expedited Transfer of Spent Fuel**

On March 11, 2011, a 9.0-magnitude earthquake occurred near the east coast of Honshu, Japan and was followed by a 45-foot tsunami, which resulted in extensive damage to the nuclear power reactors at the Fukushima Dai-ichi facility as the result of a sustained loss of both the offsite and on-site power systems. In the wake of the event, there were concerns about the integrity of spent fuel pools ("SFP") and the possible release of radioactive materials from the spent fuel assemblies. Subsequent inspections determined that pool integrity and spent fuel cladding integrity had been maintained, and equipment was successfully deployed to restore coolant inventory to the SFPs. Nonetheless, the NRC undertook an examination of whether the transfer of spent fuel to dry cask storage at nuclear power plants should be expedited.

In the summer of 2011, the NRC Staff initiated the Consequence Study<sup>2</sup> research project to examine the risks and consequences of postulated spent fuel pool accidents. In SECY-11-

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<sup>2</sup> Consequence Study of a Beyond-Design Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor (Oct. 2013) ("Consequence Study") (ADAMS Accession No. ML13256A342) (attached to SECY-13-0112, Memorandum from Mark A. Satorious, Executive Director for Operations, to the Commissioners, re Consequence Study of a Beyond-Design Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor (Oct. 9, 2013) ("SECY-13-0112") (ADAMS Accession No. ML13273A628)). The Consequence Study was released in a draft for public comment in June, 2013. ADAMS Accession No. ML13133A132. See Press Release 13-053, NRC Seeks Public Comments on Spent Fuel Pool Study (June 24, 2013) (ADAMS Accession No. ML13175A104).

0137, “Prioritization of Recommended Actions To Be Taken in Response to Fukushima Lessons Learned,” dated October 3, 2011 (ADAMS Accession No. ML11272A111), the NRC Staff identified six additional issues that were not included with the Near-Term Task Force (NTTF) recommendations. One of those issues was the expedited transfer of spent fuel to dry cask storage.

In Staff Requirements Memorandum (SRM), SRM-SECY-11-0137, dated December 15, 2011 (ADAMS Accession No. ML113490055), the NRC Staff was directed to conduct an assessment of whether expedited transfer of spent fuel to dry storage should be included with the Japan lessons-learned activities and whether any regulatory action was recommended or necessary. In SECY-12-0025, “Proposed Orders and Requests for Information in Response to Lessons Learned from Japan’s March 11, 2011, Great Tohoku Earthquake and Tsunami,” dated February 17, 2012 (ADAMS Accession No. ML12039A103), the NRC Staff prioritized expedited transfer of spent fuel to dry cask storage in the Tier 3 (lowest priority) category because it required further staff study to determine if regulatory action is warranted. In SECY-12-0095, “Tier 3 Program Plans and 6-Month Status Update in Response to Lessons Learned from Japan’s March 11, 2011, Great Tohoku Earthquake and Subsequent Tsunami,” dated July 13, 2012 (ADAMS Accession No. ML12165A092), the NRC Staff issued a plan to evaluate whether regulatory action is warranted for the expedited transfer of spent fuel from SFPs into dry cask storage. The Commission provided direction to the NRC Staff in two SRMs.<sup>3</sup>

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<sup>3</sup> SRM-M120607C, “Staff Requirements—Meeting with the Advisory Committee on Reactor Safeguards, 9:30 A.M., Thursday, June 7, 2012, Commissioners’ Conference Room, One White Flint North, Rockville, Maryland (Open to Public Attendance),” dated July 16, 2012 (ADAMS Accession No. ML121980043); SRM-M120807B, “Staff Requirements—Briefing on the Status of Lessons Learned from the Fukushima Dai-ichi Accident, 9:00 A.M., Tuesday, August 7, 2012, Commissioners’ Conference Room, One White Flint North, Rockville, Maryland (Open to Public Attendance),” dated August 24, 2012 (ADAMS Accession No. ML122400033).

In the Consequence Study, the NRC Staff evaluated (1) whether a severe earthquake would damage the spent fuel pool to the point of leaking, and (2) the consequences that might result from a spent fuel pool leak (assuming seismic forces greater than the maximum earthquake reasonably expected to occur at the reference plant location). Consequence Study at iii. In order to analyze the consequences in the small likelihood that an extreme earthquake caused a leak, the staff then analyzed (1) where the leak would be expected, (2) the size of the leak, and (3) how the spent fuel could overheat and potentially release radioactive material into the environment. Id. The NRC Staff further analyzed what the public health and environmental effects of a radiological release would be in the area surrounding the plant, including scenarios where some preplanned and improvised mitigative actions by the emergency response organization were either not successful or not implemented and assessed the impact on the environment. Id.

On May 7, 2013, the NRC Staff issued a memorandum to the Commission entitled, “Updated Schedule and Plans for Japan Lessons-Learned Tier 3 Issue on Expedited Transfer of Spent Fuel,” (ADAMS Accession No. ML13105A122), which provided a three phase plan for evaluating whether regulatory action is warranted to require licensees to expedite transfer of spent fuel from SFPs to dry cask storage. Phase 1 of the plan was to issue a memorandum to help determine if additional study is warranted. Phases 2 and 3 of the plan would be undertaken if the results of Phase 1 would indicate that additional study is warranted.

The NRC Staff completed a Regulatory Analysis<sup>4</sup> to determine if additional study of requiring the expedited transfer of spent fuel was warranted (i.e., on whether reactor licensees

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<sup>4</sup> Regulatory Analysis for Japan Lessons-Learned Tier 3 Issue on Expedited Transfer of Spent Fuel (“Regulatory Analysis”) (Enclosure 1 to COMSECY-13-0013) (Nov. 12, 2013) (ADAMS Accession No. ML13273A628). The Regulatory Analysis was released in draft form in September 2013 (ADAMS Accession No. ML13256A348)..

should be required to reduce the amount of spent fuel stored in their spent fuel pools). The NRC Staff assessed the potential safety benefits and performed a cost-benefit analysis. The NRC Staff concluded that the expedited transfer of spent fuel would provide only a minor or limited safety benefit, and that its expected implementation costs would not be warranted. The Phase 1 memorandum – COMSECY 013-0030 – determined, based on the results of the Consequence Study and the Regulatory Analysis, along with previous studies and operating experience, that additional study of the expedited transfer of spent fuel is not warranted. COMSECY 013-0030 at 2.

### **III. DISCUSSION**

#### **A. The Petition Is Untimely**

Petitions to the Commission to suspend proceedings are treated as motions under 10 C.F.R. § 2.323. Oyster Creek, CLI-08-23, 68 N.R.C. at 476 (2008); Pacific Gas & Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 N.R.C. 230, 237 (2002). While the NRC rules require that motions be addressed to the Presiding Officer when a proceeding is pending, the Commission has previously indicated that suspension motions such as this are best addressed to it. Union Electric Co. d/b/a Ameren Missouri (Callaway Plant, Unit 2), et al., CLI-11-05, 74 N.R.C. 141, 158 (2011); Oyster Creek, CLI-08-23, 68 N.R.C. at 476; Diablo Canyon, CLI-02-23, 56 N.R.C. at 237.

Section 2.323 requires motions to be made no later than 10 days after the occurrence or circumstance from which the motion arises. 10 C.F.R. § 2.323(a). Petitioners refer to two primary documents that prompted the Petition: the Consequence Study and the Regulatory Analysis. These documents were publicly available more than 10 days preceding the initial filing of the Petition (and the filing of the petition for rulemaking). Petitioners claim that the



Petition is timely because it was filed within ten days from the filing of a petition for rulemaking by Petitioners and other groups.<sup>5</sup> Petition at 14.

However, the triggering event for calculating the timeliness of a motion is when the event that gives rise to the relief occurs. That event is the publication of the analyses forming the basis for the Petition, which occurred in October and November 2013.<sup>6</sup> Petitioners cannot bootstrap their belated claims by filing a petition for rulemaking, which itself is based on information that is months (or years) old, and then filing a motion in individual proceedings based on that belated petition for rulemaking. The Commission has made clear that a petitioner may not rely on documents that merely refer to existing information to justify the timeliness of a filing. See AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 N.R.C. 229, 238 (2006), aff'd CLI-09-07, 69 N.R.C. 235, 272 (2009). See also Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 N.R.C. 481, 496 (2010). The Petitioners attempt to do exactly that by claiming that the triggering event for timeliness is their own filing of a petition for rulemaking. Accordingly, the Petition is untimely and should be denied as a matter of law.

#### **B. The Petition Does Not Provide a Legal or Factual Basis for the Drastic Relief Sought**

The Petitioners argue that the Commission should suspend final decisions in the reactor licensing proceedings and license renewal proceedings in which the Petition has been filed, “until the NRC addresses new and significant information identified by the NRC Staff in the

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<sup>5</sup> “Environmental Organizations’ Petition to Consider New and Significant Information Regarding Environmental Impacts of High-Density Spent Fuel Storage and Mitigation Alternatives in Licensing Proceedings for New Reactors and License Renewal Proceedings for Existing Reactors and Duly Modify All Regulations Regarding Environmental Impacts of Spent Fuel Storage During Reactor Operation,” filed with the Commission on February 18, 2014 (“Rulemaking Petition”).

<sup>6</sup> Drafts of these analyses were available even earlier in July 2013 and September 2013. COMSECY-13-0030 at 10.

Expedited Spent Fuel Transfer Proceeding that is now before the Commission.” Petition at 3-4 (citation omitted). In determining whether suspension is appropriate, the Commission uses the three criteria articulated in the Private Fuel Storage proceeding:<sup>7</sup> (1) whether moving forward will jeopardize the public health and safety; (2) whether continuing the review process will provide an obstacle to fair and efficient decision-making; and (3) whether going forward will prevent appropriate implementation of any pertinent rule or policy changes that might emerge from the NRC’s ongoing evaluation. See Callaway, CLI-11-05, 74 N.R.C. at 158-59. As discussed *infra*, the Petition provides no legal or factual support that would warrant the drastic action of suspending the licensing proceedings.

*1. The Petition Does Not Establish that an Immediate Threat to Public Health and Safety Exists*

The Commission considers the “‘suspension of licensing proceedings a ‘drastic’ action that is not warranted absent immediate threats to public health and safety,’ or other compelling reason.” Callaway, CLI-11-05, 74 N.R.C. at \_\_\_\_ (citations omitted); Oyster Creek, CLI-08-23, 68 N.R.C. at 484; Vermont, CLI-00-20, 52 N.R.C. at 173-74. Petitioners have not shown that moving forward with reactor licensing proceedings will jeopardize the public health and safety.

The Commission has rejected similar requests to stay the decisions in licensing proceedings, following the events of Fukushima Daiichi, the Three Mile Island (“TMI”) accident and the terrorist attacks of September 11, 2001. See Callaway, CLI-11-05, 74 N.R.C. at \_\_\_\_; Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 N.R.C. at 390; Private Fuel Storage, CLI-01-26, 54 N.R.C. at 381-82. In all those cases, as here, “nothing we have learned to date puts the continued safety of our

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<sup>7</sup> Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage), CLI-01-26, 54 N.R.C. 376 (2001).

currently operating regulated facilities, including reactors and spent fuel pools, into question. Similarly, nothing learned to date requires immediate cessation of our review of license applications or proposed reactor designs.” Callaway, 74 N.R.C. at 161. As the Commission ruled in the decisions following those events, nothing in the Petition justifies suspending all reactor licensing proceedings pending the Commission’s disposition of the Rulemaking Petition. Indeed, even the Consequence Study cited by the Petitioners concludes that the “NRC continues to believe, based on this study and previous studies that high density storage of spent fuel in pools protects public health and safety.” Consequence Study at xii. Moreover, nothing in the Petition contains a specific link between the relief requested and the particulars of any of the above-referenced proceedings. The Commission also noted in Callaway that the lack of such a link, particularly where the decisions in the licensing proceedings are months or years away, as they are here, makes suspension of licensing decisions inappropriate. Callaway, CLI-11-05, 74 N.R.C. at 161.

2. *Moving Forward with the Proceedings Would Not Prove to Be an Obstacle to Fair and Efficient Decisionmaking*

Petitioners fail to explain how moving forward with the proceedings would be an obstacle to fair and efficient decisionmaking, other than making a conclusory statement and alleging a violation of NEPA. Petition at 10. The Commission has long held that it has a commitment to the efficient and expeditious processing of applications. See, e.g., Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 N.R.C. 18, 24 (1998). The Commission has held that there is a “substantial public interest in efficient and expeditious administrative proceedings.” Duke Energy Corp. (Oconee Nuclear Station Units 1, 2 & 3), CLI-99-11, 49 N.R.C. 328, 339 (1999). The Commission has likewise held that it has a responsibility to go forward with pending proceedings. Private Fuel Storage, CLI-01-26, 54 N.R.C. at 381.

During the time when the NRC is pursuing its top-to-bottom reassessment of its regulations and policies on terrorism, the agency must also continue to meet its statutory responsibilities for licensing and regulation of all nuclear facilities and materials in a timely and efficient manner. See Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18 (1998). Permitting unnecessary delays would contravene the Commission's fundamental duties to the general public, as well as to applicants and licensees. *The Commission's objectives are to provide a fair hearing process, to avoid unnecessary delays in the NRC's review and hearing processes, and to produce an informed adjudicatory record that supports agency decision making on matters related to the NRC's responsibilities for protecting public health and safety, the common defense and security, and the environment. Id. at 19. Consistent with this policy, the Commission has a history of not delaying adjudications to await extrinsic actions, absent special needs of efficiency or fairness. See Private Fuel Storage*, CLI-01-26, 54 NRC at 381-83 and references cited therein; McGuire & Catawba, CLI-01-27, 54 NRC at 390-91.

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 N.R.C. at 400 (emphasis added) (footnote omitted). See also McGuire/Catawba, CLI-01-27, 54 N.R.C. at 391 ("This general reluctance [to suspend proceedings] is firmly grounded in our longstanding commitment to efficient and expeditious decisionmaking . . .").

Commission practice is to circumscribe any orders delaying proceedings to the duration and scope necessary to promote the dual goals of public safety and timely adjudication. Private Fuel Storage, CLI-01-26, 54 N.R.C. at 381. Moreover, the Bellefonte Combined License proceeding and the Watts Bar, Unit 2 Operating Licensing proceeding were two of the proceedings directly affected by the Calvert Cliffs decision. Consideration of the admissibility of a waste confidence contention is also being held in abeyance in the Sequoyah License Renewal proceeding. Sequoyah, CLI-14-03, \_\_\_ N.R.C. \_\_\_, slip op. Thus, the relief sought by the Petition, suspending the final decision in these proceedings, has already been largely granted because no final decision will be issued until the contentions held in abeyance are addressed, which the Commission has stated will not be until the final waste confidence rule is issued. The

Commission will issue further directions regarding the pending waste confidence contentions concurrent with the issuance of the final waste confidence rule. *Id.*, slip op. at 8-9.

3. *Moving Forward with the Proceedings Will Not Hamper Implementation of Any Potential Rule or Policy Changes*

Petitioners assert that “[t]o deny a stay would have the effect of precluding the application of appropriate NEPA policy for consideration of environmental impacts and costs and benefits of mitigation measures in licensing decisions, and substituting inappropriately narrow safety-based policy after operation is approved.” Petition at 14. However, as discussed *infra*, the issues raised in the Rulemaking Petition are being considered in the waste confidence GEIS and rulemaking proceeding and have been addressed in the June 2013 revision to the License Renewal GEIS. If the Rulemaking Petition results in an additional rule or policy change, then the Commission has ample authority to modify requirements by rule, regulation, or order—both for applicants and licensees. See Diablo Canyon, CLI-02-23, 56 N.R.C. at 240; Savannah River, CLI-01-28, 54 N.R.C. at 400; Private Fuel Storage, CLI-01-26, 54 N.R.C. at 383-84. In considering whether moving forward with proceedings would prevent appropriate implementation of any rule or policy changes that might emerge from its ongoing evaluation of an event, the Commission has held:

*[E]very license the Commission issues is subject to the possibility of additional requirements. The Commission can modify license requirements by rule, regulation, or order; and changes can be applicable to both applicants and licensees. Thus, as in Private Fuel Storage, “holding up these proceedings is not necessary to ensure that the public will realize the full benefit of our ongoing regulatory review. . . .”*

Diablo Canyon, CLI-02-23, 56 N.R.C. at 240 (emphasis in original) (footnote omitted). That reasoning applies equally in these proceedings.

**C. The Petition Does Not Satisfy the Requirements for Staying Reactor Licensing Decisions**

The Petition states that it seeks only a stay of final decisions in these proceedings.

Petition at 4. However, the Petition does not meet the established criteria for justifying a stay of final decisions. Under 10 C.F.R. § 2.342(e), the factors used to analyze whether a stay should be granted are: (1) whether the moving party has made a strong showing that it is likely to prevail on the merits, (2) whether the party would be irreparably injured absent the stay, (3) whether the granting of the stay would harm other parties, and (4) where the public interest lies. Petitioners have not addressed any of the factors, but have only characterized the issues raised in the Petition as “new and significant information.” Petition at 9-13. Because Petitioners have not addressed any of the factors required by 10 C.F.R. § 2.342(e), the Petition should be denied. AmerGen Energy Co., LLC, (Oyster Creek Nuclear Generating Station), CLI-08-13, 67 N.R.C. 396, 399 (2008); Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-2, 37 N.R.C. 55, 58 & n.2 (1993). In any event, each of the factors weighs against granting a stay.

In weighing the factors, the most significant factor to be considered is irreparable harm. Sequoyah Fuels Corp. & General Atomics (Gore, Oklahoma Site), CLI-94-9, 40 N.R.C. 1, 6 (1994). Petitioners have the burden of demonstrating that irreparable harm is imminent, certain, and great. Entergy Nuclear Vermont Yankee LLC & Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-06-8, 63 N.R.C. 235, 237-38 (2006) (quoting Massachusetts Coalition of Citizens with Disabilities v. Civil Defense Agency, 649 F.2d 71, 75 (1st Cir. 1981)). Absent a showing of irreparable harm, the moving party must make an overwhelming showing of the likelihood of success on the merits. Sequoyah Fuels Corp., CLI-94-9, 40 N.R.C. at 6. The injury claimed by the Petition is:

To deny a stay would have the effect of precluding the application of appropriate NEPA policy for consideration of environmental impacts and costs and benefits of mitigation measures in licensing decisions, and substituting inappropriately narrow safety-based policy after operation is approved.

Petition at 14. There is no irreparable harm, much less imminent and certain harm, alleged by the Petitioners. Moreover, refusing to grant the stay will not harm Petitioners because other avenues exist for Petitioners to advance their concerns, including petitions for rulemaking, which Petitioners have already filed, and the waste confidence GEIS and rulemaking, in which Petitioners have had the opportunity to participate and which encompasses the issues raised in the Petition and Rulemaking Petition. Moreover, the claim that to “deny a stay would have the effect of precluding the application of appropriate NEPA policy for consideration of environmental impacts and costs and benefits of mitigation measures in licensing decisions” is simply inaccurate. As explained by the Commission in Diablo Canyon, “every license the Commission issues is subject to the possibility of additional requirements. The Commission can modify license requirements by rule, regulation, or order; and changes can be applicable to both applicants and licensees.” Diablo Canyon, CLI-02-23, 56 N.R.C. at 240. The “preclusion” that Petitioners allege will occur is illusory.

The other two factors – harm to other parties and consideration of the public interest – also weigh against the Petitioners.<sup>8</sup> A stay would harm other parties’ and the public’s interest in efficient and expeditious administrative proceedings. The Commission has held it will not grant requests to suspend licensing processes pending consideration of generic issues because it would be contrary to the agency’s duties to the applicants and the general public. In Savannah River,

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<sup>8</sup> Petitioners’ requirement to show high likelihood of success on the merits is addressed separately below.

the Commission rejected a petition to suspend licensing of a mixed-oxide fuel fabrication facility in the wake of the September 11, 2001, stating:

During the time when the NRC is pursuing its top-to-bottom reassessment of its regulations and policies on terrorism, the agency must also continue to meet its statutory responsibilities for licensing and regulation of all nuclear facilities and materials in a timely and efficient manner. See Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18 (1998). Permitting unnecessary delays would contravene the Commission's fundamental duties to the general public, as well as to applicants and licensees. The Commission's objectives are to provide a fair hearing process, to avoid unnecessary delays in the NRC's review and hearing processes, and to produce an informed adjudicatory record that supports agency decision making on matters related to the NRC's responsibilities for protecting public health and safety, the common defense and security, and the environment. Id. at 19. Consistent with this policy, the Commission has a history of *not* delaying adjudications to await extrinsic actions, absent special needs of efficiency or fairness. See Private Fuel Storage, CLI-01-26, 54 NRC at 381-83, and references cited therein; [Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2); Catawba Nuclear Station, Units 1 and 2)], CLI-01-27, 54 NRC [385, 390-91 (2001)].

CLI-01-25, 54 N.R.C. at 400 (emphasis in original) (footnote omitted). The relief sought by Petitioners – staying these proceedings for an indefinite time – would harm TVA and contravene the Commission's duties to the general public and the NRC's policy to avoid unnecessary delays in the NRC's review and hearing processes. A stay, therefore, is inappropriate and should be denied.

**D. The Petition Is Incorrect in Asserting that Reactor Licensing Decisions Must Be Suspended to Satisfy NEPA**

Petitioners also fail to show a high likelihood (indeed, any likelihood) of success on the merits. The Petition argues that NEPA requires the NRC to consider new and significant information resulting from its ongoing examination of spent fuel pools, which could affect the outcome of the environmental analysis in individual licensing proceedings, and claims that information concerning spent fuel pool accidents developed by the Staff is new and significant. Petition at 10-13. However, NRC regulations specify the circumstances under which the Staff



must prepare supplemental environmental review documents. Section 51.72(a) requires the preparation of a supplemental draft EIS when:

- (1) There are substantial changes in the proposed action that are relevant to environmental concerns; or
- (2) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

10 C.F.R. § 51.72(a). The Petition fails to state why the Commission's regulations are inadequate to address the issue and why suspension of these proceedings is otherwise necessary to ensure compliance with NEPA.

The Commission has repeatedly held that “[t]he new information must present a ‘seriously different picture of the environmental impact of the proposed project from what was previously envisioned.’” Callaway, CLI-11-05, 74 N.R.C. at 167-68 (citations omitted). Numerous courts have ruled likewise.<sup>9</sup> “It is not enough that the information may be worthy of further inquiry or may be considered important research.” Wisconsin v. Weinberger, 745 F.2d 412, 420 (7th Cir. 1984). As the Supreme Court noted in Marsh v. Oregon Natural Resources Council, 490 U.S. 360 (1989) (cited in the Petition), a requirement to supplement an EIS every time new information comes to light “would render agency decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made.” Marsh, 490 U.S. at 373 (footnote omitted).

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<sup>9</sup> See also In re Operation of the Missouri River Sys. Litig., 516 F.3d 688, 693 (8th Cir. 2008) (“seriously different picture of the environmental impact”); Town of Winthrop v. FAA, 535 F.3d 1, 9 (1st Cir. 2008) (substantial change in conditions since the data used in the EIS were gathered); Sierra Club v. U.S. Army Corps of Eng’rs, 295 F.3d 1209, 1215-16 (11th Cir. 2002) (significant impact not previously covered); S. Trenton Residents Against 29 v. FHA, 176 F.3d 658, 663 (3d Cir. 1999) (“seriously different picture of the environmental impact”); Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 443 (4th Cir. 1996) (same); Village of GrandView v. Skinner, 947 F.2d 651, 657 (2d Cir. 1991) (significant impact not previously covered); Sierra Club v. Froehlke, 816 F.2d 205, 210 (5th Cir. 1987) (“seriously different picture of the environmental impact”); Wisconsin v. Weinberger, 745 F.2d 412, 418 (7th Cir. 1984) (same).

The Petition does not present any information that provides a materially different picture of the environmental impact of the proposed project. The Petition admits that the Staff has reviewed the information on which the Petition (and Rulemaking Petition) is based. Petition at 7-8. The Staff's Consequence Study and Regulatory Analysis do not present a materially different picture of the environmental impact of the proposed project and are not new and significant.

*1. The Results of the Consequence Study Are Not Significantly Different from Past Studies*

The Consequence Study 1) identified previous studies of safety consequences of spent fuel accidents in both wet and dry storage, 2) determined the extent to which those previous studies are comparable to results from the Consequence Study, and 3) updated the results of the previous studies, to the extent practicable, to facilitate a comparative assessment. This included evaluation of the following studies:

- "Severe Accidents in Spent Fuel Pools in Support of Generic Safety Issue 82" (NUREG/CR-4982, 1987);
- "Value/Impact Analyses of Accident Preventive and Mitigative Options for Spent Fuel Pools," (NUREG/CR-5281, 1989);
- "Regulatory Analysis for the Resolution of Generic Issue 82 'Beyond Design Basis Accidents in Spent Fuel Pools'" (NUREG-1353, 1989);
- "A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants" (NUREG/CR-6451, 1997); and
- "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants (NUREG-1738, 2001).

Consequence Study at 230-44. The results of the Consequence Study are generally bounded by prior studies:

The lack of any early fatalities attributable to acute radiation exposure in this study is *consistent with results of some past SFP studies, and much lower than*

*others (e.g., up to 200 early fatalities from NUREG-1738). The range of latent fatalities predicted in this study is consistent with the lower end of the range reported in past SFP studies. The conditional individual latent cancer fatality risk from 0 to 10 miles for the scenarios studied in this report is several orders of magnitude below that reported in NUREG-1738, which was the only other study to report this metric. Even when the early evacuation scenario from NUREG-1738 is used for comparison (average individual risk is in the range of 2.6E-3 to 4.8E-3), the results from the current SFPS study are significantly lower. The collective dose values predicted in this study are consistent with the lower end of the range reported in past SFP studies. The SFPS reports temporarily interdicted land (uninhabitable land during the first year following the postulated accident), in order to remove uncertainty in longer-term effects and policies related to weathering and decontamination decisions. Reporting interdicted land makes the results incomparable to the past SFP studies which have presented condemned land. The SFPS does not report other aspects of offsite property damage.*

Consequence Study at 233 (emphasis added). “[I]f a radiological release were to occur . . . this study shows public and *environmental effects are generally smaller than earlier studies.*”

Id. at iv (emphasis added). The Petition attempts to suggest that the extent of land contamination is somehow different from past studies. See, e.g., Petition at 11. However, the Consequence Study states that its results are not significantly different from the land contamination anticipated in prior studies:

On land contamination, past results are expected to be broadly consistent with this study. [While] some previous studies did not report land contamination and some reported different metrics for estimating areas, so a direct comparison is not possible. . . . [i]t is clear that both this study and past studies have predicted that [spent fuel pool] accidents can lead to significant land contamination.

Id. at 168-69. Therefore, there is nothing new or significant regarding the Consequence Study.

2. *The Probability of Potential Events Addressed in the Consequence Study Are Consistent with Past Studies*

The Petition addresses only the possible consequences discussed in the Consequence Study, not the underlying probabilities. Environmental analyses “must examine both the probability of a given harm occurring *and* the consequences of that harm if it does occur.” New

York v. NRC, 681 F.3d 471, 482 (D.C. Cir. 2012) (emphasis in original). “[A]fter the agency examines the consequences of the harm in proportion to the likelihood of its occurrence, the overall expected harm could still be insignificant.” Id. “Depending on the weighing of the probability and the consequences, an EIS may or may not be required.” Id. The Consequence Study, however, addresses the probability of the events the Petition raises, stating:

Past risk studies have shown that storage of spent fuel in a high density configuration is safe and the risk of a large release due to an accident is very low. This study’s results are consistent with earlier research conclusions that spent fuel pools are robust structures that are likely to withstand severe earthquakes without leaking.

Consequence Study at v. When the NRC Staff presented the results of the Consequence Study to the Commissioners, the NRC Staff stated, “[t]he risk is low and what they found out in the spent fuel study is that it is consistent with earlier research conclusions.” Briefing on Spent Fuel Pool Safety and Consideration of Expedited Transfer on (sic) Spent Fuel to Dry Casks (Jan. 6, 2014), Transcript at 91 (ADAMS Accession No. ML14008A249). When weighted by their frequency of occurrence, the consequences cited by Petitioners translate into 0.001 square miles of land interdicted per year and 0.5 displaced individuals per year. Consequence Study at x-xi, 162 (Table 33). If the mitigation measures required by 10 C.F.R. § 50.54(hh)(2) are credited, these risk values decrease by nearly three orders of magnitude. Id. at 171 (Table 38).<sup>10</sup>

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<sup>10</sup> Moreover, the Consequence Study and Regulatory Analysis are, in effect, a worst case analysis that does not need to be considered under NEPA. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 356 (1989) (NEPA does not require agencies to perform “worst case analysis,” which would “distort[] the decisionmaking process by overemphasizing highly speculative harms”). NEPA mitigation alternatives analysis need not reflect the most conservative – or worst case – analysis.” Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-12-10, 75 N.R.C. 479, 487 (2012) (citing Robertson, 490 U.S. at 354-56). The Consequence Study was deliberately designed to maximize the analyzed benefit of transferring spent fuel to dry storage. As the NRC Staff explained in presenting the Consequence Study and Regulatory Analysis to the Advisory Committee on Reactor Safeguards (“ACRS”), “[t]his was a preliminary phase to see, should we go to the second phase, which is an additional study. And so in that regard, that’s why we were very conservative, or we tried to be, to say we will – where there’s a doubt, we’ll maximize the benefits of expediting the transfer.” ACRS (Oct. 2, 2013), Tr. at 26.

3. *The Results of the Consequence Study and Regulatory Analysis Are Being Addressed in the Waste Confidence GEIS and Are Consistent with Studies Considered in the License Renewal GEIS*

Although the Petition claims that no EIS for reactor licensing, GEIS for reactor re-licensing, or environmental assessment for reactor design certification has taken into account the results of the Consequence Study and Regulatory Analysis addressed in the Petition (Petition at 5-6), this is not correct for the reasons discussed *supra*. Moreover, the Staff's Consequence Study and Regulatory Analysis have been taken into account in the waste confidence GEIS and the Staff has provided the same information to the public to allow comment on the waste confidence GEIS:

Within this Tier 3 analysis, the staff has considered the agency's activities on the waste confidence generic environmental impact statement (GEIS) and rulemaking, and it has ensured that the availability of these documents and interactions with stakeholders are coordinated to facilitate the public's involvement in these activities. Although this Tier 3 analysis was not specifically referenced in the draft GEIS, *those who prepared the draft GEIS were aware of the conclusions in this Tier 3 analysis, and the staff has coordinated this activity with the relevant sections of the draft GEIS. To facilitate the public's ability to provide input, a draft of the October 2013 SFP study was released for public review and comment on July 1, 2013. Additionally, the draft evaluation of this Tier 3 issue was released to the public on September 26, 2013, well before the draft GEIS public comment period ends on December 20, 2013.*

COMSECY-13-0030 at 10 (emphasis added). Not only does the waste confidence GEIS and rulemaking take into account the issues raised in the Petition, Petitioners have had the opportunity to address those issues through their comments in that rulemaking. Moreover, no

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The Regulatory Analysis (1) is based on a highly improbable seismic events of 0.7 g PGA and 1.2 g PGA (Regulatory Analysis at 17); (2) assumes that AC power, and thus spent fuel pool cooling and makeup, are always unavailable following these seismic events and cask drop events (*id.* at 17, 86); (3) uses more conservative spent fuel pool fragilities than analyses predict (*id.*); (4) assumes no natural circulation for three out of four of the spent fuel pool groups analyzed, even though this condition occurs during only part of the operating cycle (*id.* at 87-88); and (5) assumes no use of mitigation measures to recover spent fuel pool cooling and makeup (*id.* at 70). Even under this analysis, no mitigation measures were found to be cost-beneficial.

final decision will be issued in these licensing proceedings as long as the waste confidence contentions are being held in abeyance.

The Petition also contends that the information in the Rulemaking Petition has not been addressed in the License Renewal GEIS. Petition at 11-12. This assertion is not correct. The License Renewal GEIS takes into account previous spent fuel pool studies whose results, as discussed *supra*, are not significantly different from those determined by the Consequence Study. See License Renewal GEIS, Appendix E at E-34 – E-39.

#### **IV. CONCLUSION**

For the foregoing reasons, the Petition should be denied.

Respectfully submitted,

/signed (electronically) by Scott A. Vance/

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March 21, 2014

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

Before the Commission

In the Matter of	)	Docket Nos. 52-014-COL
	)	52-015-COL
TENNESSEE VALLEY AUTHORITY	)	
(Bellefonte Nuclear Power Plant, Units 3 and 4)	)	
	)	

**CERTIFICATE OF SERVICE**

I hereby certify that the foregoing Tennessee Valley Authority's Answer Opposing Petition To Suspend Reactor Licensing Decisions And Reactor Re-Licensing Decisions Pending Completion Of Rulemaking Proceeding Regarding Environmental Impacts Of High-Density Pool Storage Of Spent Fuel And Mitigation Measures, have been served through the E-Filing system on the participants in the above-captioned proceeding, this 21<sup>st</sup> day of March, 2014.

/signed electronically by/  
Blake J. Nelson