RAS 7814

STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	
System Energy Resources, Inc.	)	Docket No. 52-009
	)	
(Early Site Permit for Grand Gulf ESP Site	)	ASLBP No. 04-823-03-ESP
	)	
	)	

ANSWER BY SYSTEM ENERGY RESOURCES, INC. TO PROPOSED CONTENTIONS

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May 28, 2004

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I. INTRODUCTION

In accordance with 10 C.F.R. § 2.309(h)(1), System Energy Resources, Inc. ("SERI") hereby answers, on the issue of admissibility, the proposed contentions filed on May 3, 2004 by the National Association for the Advancement of Colored People-Claiborne County, Mississippi Branch ("NAACP"); Nuclear Information and Resource Service ("NIRS"); Public Citizen; and the Mississippi Chapter of the Sierra Club ("Sierra Club") (collectively, "Petitioners").[1] SERI is the applicant for the Early Site Permit ("ESP") that is at issue in this proceeding. For the reasons set forth below, SERI opposes the admission of all of the proposed contentions. Accordingly, Petitioners' Hearing Request and Petition to Intervene should be rejected.

[1] Petitioners filed two sets of proposed contentions on May 3, 2004. The first or original set of contentions is referred to herein as "Contentions." The second set, which raises issues related to the Commission's Waste Confidence Decision, is referred to herein as "Waste Confidence Contentions."

II. BACKGROUND

A. Procedural Posture of the Case

On October 16, 2003, SERI submitted an application pursuant to 10 C.F.R. § 52.15. SERI requests an ESP, with a 20-year duration in accordance with 10 C.F.R. § 52.27(a), for certain property co-located with the existing Grand Gulf Nuclear Station ("GGNS") near Port Gibson, Mississippi. The site is located in Claiborne County, Mississippi, approximately 25 miles south of Vicksburg, Mississippi, 6 miles northwest of Port Gibson, Mississippi, and 37 miles north-northeast of Natchez, Mississippi. If approved by the NRC, the ESP would permit use of the site as a location for one or more new nuclear power reactors, to be authorized for construction and operation in a future NRC licensing proceeding.

A Notice of Hearing and Opportunity to Petition for Leave to Intervene was published in the *Federal Register* on January 16, 2004.[2] Petitioners filed their Hearing Request and Petition to Intervene on February 12, 2004.[3] SERI did not contest the representational standing of Petitioners in an answer filed on February 24, 2004.[4] In a Memorandum and Order (CLI-04-08) dated March 2, 2004, the Commission directed that all three ESP proceedings be conducted under the revised Part 2 rules.[5] The Licensing Board issued its Initial Prehearing

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2 System Energy Resources, Inc; Notice of Hearing and Opportunity To Petition for Leave To Intervene Early Site Permit for the Grand Gulf ESP Site, 69 Fed. Reg. 2636 (Jan. 16, 2004).

3 Petitioners amended their Hearing Request and Petition to Intervene on February 17, 2004.

4 "Answer by System Energy Resources, Inc. to Petition to Intervene," dated February 24, 2004.

5 *See* Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182 (Jan. 14, 2004).

Order on March 8, 2004, establishing procedures for the conduct of this proceeding.[6] As noted above, on May 3, 2004, Petitioners filed their proposed contentions, which SERI now answers in accordance with the Licensing Board's schedule.

B. Early Site Permits — An Overview

When it promulgated 10 C.F.R. Part 52 in 1989, the Commission created a regulatory framework for licensing a new generation of commercial nuclear power reactors in a "sensible" and "stable" fashion.[7] This framework, tailored to achieve early resolution of licensing issues, centered on plant standardization, enhanced safety, and the resolution of "safety and environmental issues before plants are built, rather than after." 54 Fed. Reg. at 15,373 col. 2. To fulfill these objectives, Part 52 authorizes the Commission to issue early site permits, standard design certifications, and combined licenses for nuclear plants.

An ESP is a "Commission approval, issued pursuant to subpart A of [Part 52], for a site or sites for one or more nuclear power facilities." 10 C.F.R. § 52.3(b). The ESP "approval" is separate and apart from a construction permit ("CP"), combined operating license ("COL"), or a standardized design certification. *Id.* §§ 52.11, 52.41. The ESP process enables the NRC to resolve important siting issues. 54 Fed. Reg. at 15,378 col. 1. The ESP process, however, is not intended to encompass the full range of plant design, environmental, or other issues that are associated with construction and operation of a proposed nuclear plant.

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6 Licensing Board Memorandum and Order (Initial Prehearing Order) (Mar. 8, 2004) (unpublished).

7 Final Rule, Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 54 Fed. Reg. 15,372, 15,373 col. 2 (Apr. 18, 1989).

Review of an ESP application by the NRC Staff proceeds on three fronts: (1) site safety; (2) environmental impact; and (3) emergency planning. 10 C.F.R. § 52.17.[8] Turning first to the review of safety issues at the ESP stage, NRC regulations require that applications be reviewed according to the standards set forth in 10 C.F.R. Part 50 and its appendices. *Id.* § 52.18. As such, an ESP application must contain a description and safety assessment of the proposed site, which evaluates the acceptability of the site under the radiological consequence evaluation factors identified in Section 50.34(a)(1). *Id.* § 52.17(a)(1). Site characteristics must comply with 10 C.F.R. Part 100.[9] *Id.*

In terms of environmental impact, an Environmental Report ("ER") must be included with an ESP application. *Id.* § 52.17(a)(2). The ER must focus on "the environmental effects of construction and operation of a reactor, or reactors, which have characteristics that fall within the postulated site parameters, and provided further that the [ER] need not include an assessment of the benefits (for example, need for power) of the proposed action, but must include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed." *Id.* §§ 52.17(a)(2), 52.18.

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8 In addition, an ESP may authorize certain pre-construction activities at a site if the ESP application includes an adequate site redress plan. 10 C.F.R. § 52.17(c). SERI does not seek such authorization and has not included a site redress plan in its ESP application.

9 In addition, the NRC urges ESP applicants to describe: (1) the number, type, and thermal power level of the facilities for which the site may be used; (2) site boundaries; (3) the proposed general location of each facility on the site; (4) anticipated maximum levels of radiological and thermal effluents each facility will produce; (5) the type of cooling systems, intakes, and outflows that may be associated with each facility; (6) seismic, meteorological, hydrologic, and geologic characteristics of the proposed site; (7) the location and description of any nearby industrial, military, or transportation facilities and routes; and (8) the existing and projected future population profile of area surrounding the site. 10 C.F.R. § 52.17(a)(1)(i)-(viii).

With regard to emergency planning, an ESP application "must identify physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site, that could pose a significant impediment to the development of emergency plans." *Id.* § 52.17(b)(1). Further, ESP applicants may, but need not, either: (1) propose major features of the emergency plans ("EPs"), such as the exact sizes of the emergency planning zones, that can be reviewed and approved by NRC in consultation with the Federal Emergency Management Agency ("FEMA"), in the absence of complete and integrated EPs; or (2) propose complete and integrated EPs for review and approval by NRC, in consultation with FEMA, pursuant to 10 C.F.R. § 50.47. *Id.* § 52.17(b)(2)(i)-(ii).

In this case, because the Grand Gulf ESP application is *not* an application for either a CP or COL, and because a final facility design has not yet been selected by SERI, the application employs a "plant parameter envelope" ("PPE") approach in lieu of specifying a particular plant design or reactor vendor. As such, the application provides an evaluation of the selected site considering a bounding set of postulated design parameters[10] for a group of potential plant candidates under consideration.[11] For example, values for maximum building height, acreage for plant facilities, and cooling water requirements are among the design parameters specified in the PPE. The PPE parameters, along with information about actual site features (*i.e.*,

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10 Design parameters are the postulated features of the reactor or reactors that could be built on the site in the future. At the COL stage, these will be compared to actual "design characteristics" of the selected plant to identify significant new safety or environmental issues.

11 The reactors included in the scope of the PPE include light-water-cooled technologies (*i.e.*, the ABWR, ESBWR, AP-1000, IRIS, and ACR-700) and two gas-cooled reactor technologies (*i.e.*, the GT-MHR and PBMR). GGNS Safety Analysis Report ("SAR") at 1.3-2.

"site 'characteristics"), support the 10 C.F.R. § 52.17 analyses required to demonstrate site suitability.

The NRC Staff has agreed that the PPE approach can, with certain caveats, be used for evaluating a proposed site for purposes of ESP approval.[12] Further, the Commission has approved the Staff's review standard for ESP applications, which recognizes that references to "the plant" would be deemed to include "a nuclear power plant or plants or specified type that might be constructed on the proposed site (or falling within a plant parameter envelope[PPE])."[13] Thus, if an ESP is referenced in a future CP or COL application, it will be the future applicant's responsibility to ensure that the selected reactor design is bounded by the PPE values used in the ESP or to demonstrate to the Commission that the variances are acceptable for the site. 10 C.F.R. § 52.39(b).

III. DISCUSSION

A. Legal Standards Governing Admissibility of Contentions

To be admissible in NRC licensing proceedings, proposed contentions must satisfy 10 C.F.R. § 2.309(f)(1), which states that a petitioner must provide:

> (i) a *specific statement of the issue of law or fact* to be raised or controverted;

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12 *See* Letter from James E. Lyons (NRC), to Ronald L. Simard (Nuclear Energy Institute (NEI)), "Resolution of Early Site Permit Topic 6 (ESP-6), Use of Plant Parameter Envelope (PPE) Approach" (Feb. 5, 2003). For example, the Staff noted that the ESP application information that contains the PPE values along with site investigation efforts and existing information (*e.g.*, data and analyses) must adequately address site safety, environmental impacts, and emergency preparedness. The Staff also noted its expectation that margins applied to account for uncertainties in PPE values will be identified.

13 NRR Review Standard (RS)-002, "Processing Applications for Early Site Permits" (May 3, 2004) at 12. *See also* Staff Requirements Memorandum — SECY-03-0227 — Review Standard RS-002, "Processing Applications for Early Site Permits" (March 15, 2004).

(ii) a brief explanation of the *basis* for the contention;

(iii) a demonstration that the issue raised in the contention is *within the scope of the proceeding*;

(iv) a demonstration that the issue raised in the contention is *material* to the findings the NRC must make to support the action that is involved in the proceeding;

(v) a concise statement of the *alleged facts or expert opinions which support the petitioner's position on the issue* and on which the petitioner intends to rely at hearing, together with references to the *specific sources and documents* on which the petitioner intends to rely to support its position on the issue; and

(vi) sufficient information to show that a *genuine dispute exists with the applicant on a material issue of law or fact.* This information must include references to *specific portions of the application* (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, *the identification of each failure and the supporting reasons for the petitioner's belief.*

10 C.F.R. § 2.309(f)(1) (emphasis added). These provisions "incorporate the longstanding contention support requirements of former [10 C.F.R.] § 2.714 — no contention will be admitted for litigation in an NRC adjudicatory proceeding unless these requirements are met." Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 col. 1 (Jan. 14, 2004).

The Commission has emphasized that its rules on admission of contentions are more demanding than a mere pleading requirement and are "strict by design." *Dominion Nuclear Connecticut, Inc.* (Millstone Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001). The rules require precision in the contention pleading process, and require that a proposed contention have plausible and relevant factual support. The rules provide that if the contention and supporting material fail to demonstrate a genuine dispute as required by Section 2.309(f)(vi), the presiding officer must refuse to admit the contention. *See also Arizona Pub.*

Serv. Co. (Palo Verde Nuclear Generating Station, Units 1, 2 and 3), CLI-91-12, 34 NRC 149, 155 (1991) (citing Final Rule, Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989)).

Additionally, as explicitly reflected in 10 C.F.R. §§ 2.309(f)(iii) and (iv), a petition must demonstrate that the issue raised by each contention is within the scope of the proceeding and is material to the findings the NRC must make to support the granting of a license. *See also Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 164 (2000). Similarly, under longstanding Commission precedent, proposed contentions must fall within the scope of the issues set forth in the notice of hearing. *See Vermont Yankee Nuclear Power Co.* (Vermont Yankee Nuclear Power Station), LBP-90-6, 31 NRC 85, 91 (1990) (citing *Pub. Serv. Co. of Indiana, Inc.* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976)). This threshold requirement is particularly germane to an ESP proceeding, which does not encompass the full range of issues that might be associated with a CP or COL, as discussed above.

Finally, a proposed contention must be rejected if it constitutes an attack on applicable statutory requirements or challenges the basic structure of the Commission's regulatory process. 10 C.F.R. § 2.335(a); *see, e.g., Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974), *cited in International Uranium (USA) Corp.* (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137, 143 n.9 (1998).

B. 10 C.F.R. Part 2, Subpart L Procedures

As set forth in 10 C.F.R. § 2.309(g), a request for hearing and/or petition for leave to intervene may address the selection of hearing procedures, taking into account the provisions of 10 C.F.R. § 2.310. Specifically, if a petitioner relies on 10 C.F.R. § 2.310(d) (*i.e.*, requests

that a hearing be conducted under Subpart G procedures), the petitioner must demonstrate, by reference to the contentions and the bases provided and the specific procedures in Subpart G, "that resolution of the contention[s] necessitates resolution of material issues of fact which may be best determined through the use of the identified procedures." 10 C.F.R. § 2.309(g). In accordance with these provisions, the Licensing Board, in its Initial Prehearing Order, granted Petitioners an opportunity to address the selection of hearing procedures for this proceeding. *See* Initial Prehearing Order at 2.

Petitioners, however, have not addressed this issue. Therefore, they have not met their burden under Section 2.309(g) to demonstrate that Subpart G procedures are appropriate. Namely, Petitioners have not shown that any of their proposed contentions necessitates "resolution of issues of material fact relating to the occurrence of a past activity, where the credibility of an eyewitness may reasonably be expected to be at issue, and/or issues of motive or intent of the party or eyewitness material to the resolution of the contested matter." 10 C.F.R. § 2.310(d). Accordingly, if any proposed contention is admitted in this proceeding, the hearing on that contention should be conducted under the procedures of Subpart L. *See* 10 C.F.R. § 2.310(a).

C. Admissibility of Proposed Contentions

1. Site Safety Analysis Contentions

a. Proposed Contention 2.1 — Failure to Provide Adequate Safety Assessment of Reactor Interaction

In this proposed contention, Petitioners claim that "[t]he ESP Application for Grand Gulf Unit 1 fails to comply with 10 C.F.R. § 52.17 because its safety assessment does not contain an adequate analysis and evaluation of the major structures, systems, and components of the facility that bear significantly on the acceptability of the site under the radiological

consequences evaluation factors identified in 10 C.F.R. § 50.23(a)(1) [sic]."[14] (Contentions at 2.) "In particular, the safety assessment does not adequately take into account the potential effects on radiological accident consequences of co-locating new reactors with advanced designs next to an older reactor." (*Id.*) The basis for this contention focuses on the impact of accidents at the existing GGNS on compliance at the future plant with requirements relating to equipment qualification ("EQ") and control room habitability. As explained below, this proposed contention should be rejected because it raises design issues outside the scope of this ESP proceeding. *See* 10 C.F.R. §§ 2.309(f)(1)(ii)-(iii); 2.335(a).

At the heart of the proposed contention lies Petitioners' flawed interpretation of 10 C.F.R. § 52.17(a)(1). That regulation requires an evaluation of site acceptability, not the acceptability of a particular reactor design. The cross-reference in Section 52.17(a)(1) to Section 50.34(a)(1) does not invoke all subsections therein. Under Section 52.17(a)(1), only the "radiological consequence evaluation factors" in Section 50.34(a)(1)(ii)(D)(1)-(2) (related to releases from a future plant at the ESP site) are relevant in ESP proceedings such as this one. Analyses of external hazards that might exist for the future plant, as called for by the Petitioners, are not required in the context of an ESP proceeding. Specifically, ESP applicants are not at this stage required to demonstrate compliance with NRC regulations governing EQ or control room habitability. Nor do the General Design Criteria ("GDC") apply at this stage. External hazards, the GDC, and other design-related regulatory requirements such as EQ and control room

[14] For purposes of this Answer, SERI believes that Petitioners meant to reference 10 C.F.R. § 50.34(a)(1), and has assumed this to be the case for purposes of analysis.

habitability requirements would be addressed in any future licensing proceeding that will approve a facility design (*i.e.*, either a COL or design certification). *See* 10 C.F.R. § 52.79.[15]

With respect to control room habitability issues, Petitioners hypothesize that "the control room design for the new reactors *may not* adequately protect workers from postulated accidents at nearby reactors of different design. . . ." (Contentions at 5; emphasis added). This speculative claim is echoed in the EQ arena, when Petitioners comment that "electrical equipment in the new plants at the Grand Gulf site *may not* be qualified to withstand levels of heat and radiation that *may be* generated by an accident at the existing plant." (*Id.* at 7; emphasis added). The speculative nature of these claims serves to underscore how they are premature. If Petitioners are seeking to bring design issues, such as those raised in their proposed contention, within the scope of an ESP proceeding, then they are, in effect, impermissibly challenging Commission regulations. Petitioners are barred from doing so in this proceeding. *See* 10 C.F.R. § 2.335(a). They would, instead, need to seek relief pursuant to 10 C.F.R. § 2.206 or § 2.802. *See, e.g., Pacific Gas and Elec. Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237 nn.13 & 14 (2002) (citations omitted).[16]

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15 *See also* RS-002 at 15.0-1 (specifically providing that "[r]adiological consequences related to control room personnel will be evaluated as part of the combined (COL) review").

16 Section 2.1.1.2.1 of the application, entitled "General Arrangement of Structures and Equipment — GGNS Unit 1," provides an overview of the location of Unit 1, and a description of the structures located there. Section 2.2.3.1 evaluates certain industrial hazards associated with Unit 1 and their potential impact on the proposed unit. As discussed above, SERI acknowledges that radiological consequences from a potential Unit 1 accident will need to be considered during the COL process, in conjunction with the selection and approval of a specific unit design. *See* 10 C.F.R. § 52.79. SERI cannot conceive, in any event, how an accident at GGNS Unit 1 could create a harsh environment at a new plant as contemplated by the EQ requirements of 10 C.F.R. § 50.49.

Petitioners also make the general claim that Proposed Contention 2.1 is "supported" by the Declaration of David A. Lochbaum (Exhibit 2.1-1). (Contentions at 3.) This claim too is wholly lacking. Mr. Lochbaum only declares that he has "participated" in the preparation of this contention, and that "technical factual assertions" in this proposed contention are "true and correct" to the best of his knowledge — and that "all expressions of technical opinion therein" are based on his best professional judgment. (Exhibit 2.1-1 at 2.) However, "an expert opinion that merely states a conclusion (*e.g.*, the application is 'deficient,' 'inadequate,' or 'wrong') without providing a reasoned basis or explanation for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion as it is alleged to provide a basis for the contention." *Private Fuel Storage*, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181, *aff'd on other grounds*, CLI-98-13, 48 NRC 26 (1998). Mr. Lochbaum has provided nothing, in either his Declaration or the proffered contention, in the way of "technical analysis" supporting why the purported bases support the admission of Proposed Contention 2.1 in this proceeding. Such conjecture does not constitute a legally sufficient basis for admission of the proposed contention in this proceeding. *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999) (Petitioner must proffer "at least some minimal factual and legal foundation in support of [its] contention.").

In sum, this contention raises matters that are beyond the scope of an ESP proceeding and that will be addressed in any future CP or COL application. Proposed Contention 2.1 should be rejected.

b. Proposed Contention 2.2 — Failure to Evaluate Site Suitability for Below-Grade Placement of Reactor Containment

In its second proposed contention regarding the site safety analysis, Petitioners claim the analysis is inadequate because "it does not evaluate the suitability of the site to locate the reactor containment below grade-level. Below-grade construction is advisable and appropriate, if not necessary, in order to maintain an adequate level of security in the post-9/11 threat environment." (Contentions at 7.) This proposed contention also is inadmissible in this proceeding because it constitutes an impermissible challenge to NRC regulations and exceeds the scope of the proceeding. *See* 10 C.F.R. § 2.335(a).

There is no regulatory requirement for below-grade construction of containments, be they current or future generation plants. Neither 10 C.F.R. Parts 50, 52, 73 nor 100 contain such a requirement. Therefore, the presumption in the contention — that an ESP application must analyze below-grade construction to demonstrate that the site will support such construction — is fundamentally flawed. Instead, in the context of the CP or COL process, an applicant would compare specific design requirements as may exist at the time with site characteristics identified as part of the ESP process. The applicant at that time would need to show that its design is consistent with the site characteristics specified at the ESP stage and with NRC design requirements applicable at the time. Such a comparison is not required for purposes of an ESP. *See* 10 C.F.R. § 52.79.

The Petitioner is in reality challenging the content of current NRC safety and security regulations, and is seeking relief that is not available in this forum. In particular, Petitioners' claim that below-grade construction is "advisable and appropriate, if not necessary, in order to maintain an adequate level of security in the post-9/11 threat environment," must be viewed as an impermissible challenge to NRC regulations, namely 10 C.F.R. Part 73 and Section

50.13. That issue, however, must be pursued through the avenues provided by 10 C.F.R. §§ 2.206 and 2.802. *See, e.g., Diablo Canyon*, CLI-02-23, 56 NRC at 237 nn.13 & 14 (citations omitted). The Commission has made clear both in its regulations and adjudicatory issuances that the issue of terrorist attacks upon a power reactor is beyond the scope of licensing proceedings such as this and should not be admitted into litigation. *See, e.g., Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-82-119A, 16 NRC 2069, 2098 (1982). *Cf. Siegel v. Atomic Energy Comm'n*, 400 F.2d 778, 783-84 (D.C. Cir. 1968).[17]

In sum, this proposed contention must be rejected as a matter of law. It raises matters beyond the scope of this proceeding and barred by Commission regulation.[18]

2. *Environmental Contentions*

a. Proposed Contention 3.1 — Inadequate Consideration of Disproportionate Adverse Impacts on Minority and Low-Income Community

In Proposed Contention 3.1, Petitioners assert that SERI's ER "does not comply with the National Environmental Policy Act ['NEPA'] because it does not adequately consider the adverse and disparate environmental impacts of the proposed nuclear facilities on the

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17 The Commission also has rejected contentions seeking to introduce similar issues as NEPA-based environmental contentions. *See, e.g., Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-24, 56 NRC 335 (2002); *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2, Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358 (2002);

18 The contention also is factually flawed, revealing no knowledge or focus on SERI's application. The ESP application actually considers below-grade containment, again contrary to Petitioners' assertion that "[t]here is no indication in the ESP application that the applicant considered the suitability of the site for below-grade construction of the reactor containment." *Id.* at 11. Specific below-grade site characteristics are evaluated in Sections 2.4 (Hydrologic Engineering) and 2.5 (Geology, Seismology, and Geotechnical Engineering) of the SAR. These characteristic define part of the envelope of characteristics that will be considered at the design stage.

predominately African American and low-income community of Claiborne County." (Contentions at 12.) In other words, Petitioners challenge certain aspects of SERI's environmental justice ("EJ") analysis. To support this contention, Petitioners proffer eight bases. The first two bases, Bases A and B, provide prefatory or background information regarding the "requirements of NEPA" and the "history and demographics of Claiborne County," respectively. Although these two "bases" do not contain direct legal or factual challenges to the application, SERI does provide below additional background and clarifying information regarding NRC EJ analyses under NEPA. Bases C through H contain Petitioners' principal challenges. In short, they assert that the ER:

- "Distorts" representation of minority and low-income populations (Basis C);
- Does not evaluate adequately accident impacts on minority and low-income communities adjacent to the Grand Gulf site due to its failure to address the impacts of severe accidents on these communities (Basis D);
- Does not consider "the disproportionate safety and security risk to Claiborne County due to its lack of economic and material resources to respond to radiological emergencies" (Basis E);
- Does not consider the effect of adding two new reactors to the Grand Gulf site on the property values and the overall economic health of Claiborne County (Basis F);
- Does not evaluate the disparity in distribution of economic benefits yielded by the proposed reactors (Basis G); and
- Does not "weigh the costs of the proposed reactor(s) to the minority and low-income community against the benefits to the community, or examine alternatives that would lessen the impact of the facility and/or distribute the costs and benefits more equitably" (Basis H).

(Contentions at 12-13.) SERI concludes that these bases do not support an admissible EJ contention.

Basis A

Citing a 1998 Commission decision, Petitioners state that NEPA "requires the NRC to fully assess the impacts of the proposed action, including the disparate impacts on a low-income and minority community." (Contentions at 14, citing *Louisiana Energy Servs.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 106 (1998)). Petitioners note that, in CLI-98-3, "the Commission declared that a 'disparate impact analysis' is its 'principal tool' for advancing environmental justice under NEPA." (*Id.*, quoting CLI-98-3, 47 NRC at 100.) Petitioners also observe that, in a disparate impact analysis, the NRC "identifies and adequately weighs, or mitigates, impacts on low-income and minority communities apparent only by considering factors peculiar to those communities." (*Id.*, citing CLI-98-3, 47 NRC at 100.) SERI does not dispute the foregoing statements. However, Petitioners' contentions in fact deviate from this defined scope for an EJ review under NEPA. Therefore, to assess properly the admissibility of Proposed Contention 3.1, some amplification of the Commission's past and intended treatment of EJ matters in NRC regulatory and licensing actions is required.

On February 11, 1994, President Clinton signed Executive Order ("E.O.") 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," which directs all Federal agencies to develop strategies for considering environmental justice in their programs, policies, and activities.[19] The E.O. characterizes EJ analyses as "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." 59 Fed. Reg. at 7629. Independent agencies such as

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[19] Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 59 Fed. Reg. 7629 (Feb. 16, 1994), *codified* at 3 C.F.R. Part 859 (1995).

the NRC were only *requested* to comply with the E.O. at that time. Nonetheless, then-Chairman Ivan Selin committed, in a March 31, 1994, letter to President Clinton, that the NRC would endeavor to carry out the measures as part of its compliance with NEPA requirements.

The Council on Environmental Quality ("CEQ") issued EJ guidance in 1997.[20] Thereafter, the NRC developed guidance in both the reactor and materials licensing contexts.[21] In the adjudicatory context, the NRC has considered EJ in only a few licensing proceedings.[22] In a February 10, 2003, letter, the Commission acknowledged that its actions in this area have been taken on an *ad hoc* basis, and that a "more comprehensive assessment of, and guidance on, its approach to the consideration of environmental justice matters" would be beneficial.[23] To this end, the Commission recently published a Draft Policy Statement regarding the treatment of EJ

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20 *See* "Environmental Justice, Guidance Under the National Environmental Policy Act, Council on Environmental Quality" (Dec. 10, 1997). The Council developed this guidance to, ". . . further assist Federal agencies with their NEPA procedures so that [EJ] concerns are effectively identified and addressed." As an independent agency, the NRC is not bound by CEQ guidance; however, the NRC has considered the CEQ's guidance on environmental justice in developing its own guidance. *See* 68 Fed. Reg. at 62,643 col. 1.

21 *See* NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, Final Report" (Aug. 22, 2003); NRR Office Instruction LIC-203, "Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues" (June 21, 2001).

22 *See generally Louisiana Energy Servs.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, *remanded issues vacated as moot*, CLI-98-5, 47 NRC 113 (1998); *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31 (2001); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC 147 (2002), *motion to reopen the record denied*, CLI-04-09, 59 NRC __ (2004 NRC LEXIS 43) (Mar. 24, 2004).

23 Letter from Richard A. Meserve (NRC), to Robert W. Bishop (NEI) (Feb. 10, 2003) at 2 (responding to a December 20, 2002 NEI letter to the Secretary of the Commission concerning the NRC's voluntary implementation of E.O. 12898).

matters in NRC regulatory and licensing actions.[24] The Draft Policy Statement sets forth a number of salient principles gleaned from the Commission's consideration of NEPA's requirements and its own guidance and jurisprudence on EJ matters.[25]

First, the Draft Policy Statement states that, E.O. 12898, by its terms, *does not* establish new substantive or procedural requirements applicable to NRC regulatory or licensing activities. 68 Fed. Reg. at 62,643 col. 2. In this regard, "the E.O. does *not* provide a legal basis for contentions to be admitted and litigated in NRC licensing proceedings." *Id.* col. 3 (emphasis added). That is, EJ issues are only considered when and to the extent required by NEPA, as "NEPA is the only available statute under which the NRC can carry out the general goals of E.O. 12898." *Id.* n.2. According to the Commission, "the NRC's obligation under NEPA is to assess the proposed action for *significant* impacts to the *physical or human environment.*" *Id.* at 62,644 col. 1 (emphasis added). Accordingly, the Commission further noted that admissible EJ contentions "are those which allege, with the requisite documentary basis and support as required by 10 C.F.R. [P]art 2, that the proposed action will have significant adverse impact[s] on the physical or human environments *that were not considered because the impacts to the community were not adequately evaluated.*" *Id.* at 62,644 col. 1 (emphasis added).

Second, the Commission noted that "[r]acial motivation and fairness or equity issues are not cognizable under NEPA, and though discussed in the E.O., their consideration would be contrary to NEPA and the E.O.'s limiting language emphasizing that it creates no new

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24 *See* Issuance of Draft Policy Statement and Notice of Opportunity for Public Comment, "Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions," 68 Fed. Reg. 62,642 (Nov. 5, 2003) ("Draft Policy Statement").

25 Although the policy is a draft, it does appear to represent the Commission's most current views on this subject. If the Commission chooses to deviate from the draft in this or any other case, that would be its prerogative in the agency appellate process.

rights." 68 Fed. Reg. at 62,644 col. 1 & n.3. The Draft Policy Statement directs that an EJ review should focus on "identifying and weighing *disproportionately significant* and adverse environmental impacts on minority and low-income populations *that may be different from the impacts on the general population*," taking into account factors "peculiar to those communities." *Id.* at 62,644-45 (emphasis added). Such a review does not inquire into racial or economic discrimination. *Id.* This is consistent with the Commission's holding in *Claiborne*, in which it stated, "an inquiry into a license applicant's supposed discriminatory motives or acts would be far removed from NEPA's core interest: 'the physical environment — the world around us, so to speak.'" CLI-98-3, 47 NRC at 102 (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 772 (1983)).

Third, the Draft Policy Statement emphasizes that NRC procedural guidelines should allow for consistency and flexibility in NRC EJ analyses. *See* 68 Fed. Reg. at 62,644-45. Under current NRC Staff procedures, the potentially affected area normally reflects a 50-mile radius for licensing and regulatory actions involving power reactors. *See id.* at 62,644 col. 3. However, the Commission noted that the distances specified in internal agency guidance are "guidelines," and that "the geographic scale should be commensurate with the potential impact area and should include a sample of the surrounding population . . . ." *Id.* With respect to minority and low-income communities, the Commission stated that, under current NRC Staff guidance, such communities are identified "if the impacted area's percentage of minority or low-income population 'significantly' exceeds that of the *State or County*. 'Significantly' is defined as 20 percentage points." *Id.* at 62,645 col. 1. (emphasis added). Additionally, if either the minority or low-income population in the impacted area exceeds 50 percent, EJ matters are

considered "in greater detail."[26] *Id.* In short, the Draft Policy Statement states that "standard distances and population percentages should be used as guidance, supplemented by the EIS scoping process, to determine the presence of a minority or low-income population." *Id.* col. 2.

Basis B

In Basis B, Petitioners describe the "history and demographics" of Claiborne County, focusing on the continued "racial inequality in Claiborne County and the County Seat of Port Gibson." (Contentions at 15.) Petitioners assert that "[d]uring the years of construction and operation of the [Grand Gulf] nuclear plant, Claiborne County has become progressively more isolated and racially segregated," and that "white flight" from the County has been a "steady trend." (*Id.* at 16.) Citing a 1980 county poverty rate of 32.9%, and a 1999 poverty rate of 32.4%, Petitioners also declare that "[t]he presence of the Grand Gulf plant has not pulled Claiborne County out of a relatively high poverty level." (*Id.*)

This basis does not directly challenge the ESP application, nor does it provide direct support for such a challenge. It does impliedly raise issues that clearly fall outside the scope of the Commission's EJ review and this proceeding. Specifically, the basis implies that the Commission should delve into the issue of racial segregation, socioeconomic issues of "white flight" and poverty in Claiborne County, and the putative failure of the GGNS facility to ameliorate those conditions — all of which have nothing to do with the ESP at issue here. Inquiries into general issues of racial and economic discrimination are not proper under NEPA or Commission policy. *See* Draft Policy Statement, 68 Fed. Reg. at 62,644 col. 1 (stating that an EJ

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[26] In addition, the assessment of disparate impacts is on minority and low-income populations in general, and not on "vaguely defined, shifting 'subgroups' within that community." *Id.* at 62,645 col. 3 (quoting *Private Fuel Storage*, CLI-02-20, 56 NRC at 156)).

review under NEPA "is not a broad ranging or even limited review of racial or economic discrimination"). Accordingly, such issues are not litigable in this proceeding.

Basis C

In Basis C, Petitioners more specifically assert that, "[i]n two major respects, [] the ER presents a distorted picture of the minority and low-income populations that will be most directly affected by the proposed facility, *i.e.*, the residents of Claiborne County." (Contentions at 17.) First, Petitioners claim, the ER "fails to directly acknowledge that a minority community surrounds the Grand Gulf Site, and occupies virtually the entire portion of the ten-mile emergency planning zone that lies on the east side of the Mississippi River." (*Id.*) Second, Petitioners contend, "the ER uses an inappropriate geographic area for comparison" to identify "low-income communities." (*Id.* at 18.) Basis C, however, is insufficient to support admission of Proposed Contention 3.1. The contention does not provide any basis for a conclusion that there would be a disproportionately significant and adverse impact on minority or low income populations that may be different from the impacts on the general population. *See* 68 Fed. Reg. at 62,644-45.

First, contrary to Petitioners' assertion, SERI's identification of minority and low-income populations does not constitute a "distorted" representation of these populations within the selected geographic region or impact area. Indeed, Petitioners' observations regarding the presence of a "broad geographical band" of minority populations, and minority population percentages within the emergency planning zone, are derived from data specifically presented in the ER. Additionally, the ER openly acknowledges that "the community surrounding the GGNS site is located in a rural economically isolated region of Mississippi." ER at 2.5-3. In this regard, there is no issue of fact in dispute.

As reflected in the Draft Policy Statement and the NRC Staff guidance[27] for licensing actions involving power reactors, and as discussed above, the NRC normally uses a 50-mile radius in identifying the relevant geographic area (*i.e.*, the potential environmental impact area) for which it seeks to obtain demographic information. *See* Draft Policy Statement, 68 Fed. Reg. at 62,644 col. 3; LIC-203, App. D at D-3, D-8.[28] In its application, SERI defined the geographic area or "region" as the area located within a 50-mile radius of the GGNS site. *See* ER at 2.5-9. As also discussed above, NRC guidance provides that a minority or low-income community is identified if: (1) the impacted area's percentage of minority or low-income population "significantly" exceeds (*i.e.*, exceeds by 20 percentage points) that of the geographic area chosen for the comparative analysis, such as the county or state; or (2) the minority or low-income population in the census block group or the environmental impact area exceeds 50 percent. 68 Fed. Reg. at 62,645 col. 1; LIC-203, App. D at D-8 to D-9. Accordingly, SERI indicated the portions of Mississippi counties and Louisiana parishes in the region with minority populations that meet the foregoing criteria in ER Figures 2.5-6 and 2.5-7, respectively. ER at 2.5-9. The ER also indicates that, "[o]verall, minority individuals account for approximately 46% of the population within the 50-mile radius." *Id.* (citing ER Table 2.5-3). Similarly, SERI indicated the portions of Mississippi and Louisiana within the 50-mile radius region that met the

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27 *See* NRR Office Instruction LIC-203, "Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues" (June 2001) ("LIC-203").

28 Indeed, in a number of recent EJ analyses performed in connection with power reactor license renewal applications, the NRC Staff identified minority and low-income populations within a 50-mile radius of the subject reactors. *See, e.g.*, NUREG-1437, Supp. 10, "Generic Environmental Impact Statement ["GEIS"] for License Renewal of Nuclear Plants, Regarding Peach Bottom Atomic Power Station, Units 2 and 3, Final Report" (Jan. 2003) at Section 4.4.6; Supp. 14 (Final GEIS for R.E. Ginna Nuclear Power Plant) (Jan. 2004) at Section 4.4.6; Supp. 15 (Final GEIS for Virgil C. Summer Nuclear Station) (Feb. 2004) at Section 4.4.6. In these instances, the Staff performed its analyses using the LIC-203 guidance document.

foregoing criteria with respect to "low-income" populations in ER Figures 2.5-8 and 2.5-9, respectively. *Id.* at 2.5-10. With respect to Claiborne County in particular, the ER notes that the percentage of individuals below the poverty level is 32.4%, as compared to the Mississippi state-wide level of 19.9%. *Id.*

In the proposed contention, Petitioners focus on two subsets of the geographic area: the "ten-mile emergency planning zone" and the "emergency planning zone on the Mississippi side." (Contentions at 18.) The Petitioners argue that minority representation in these subsets is greater than in the 50-mile area. However, they never demonstrate how this is meaningful to an EJ review under NEPA. The Draft Policy Statement makes clear that, to be admissible, an EJ-related contention must allege, with the requisite documentary basis and support, "that the proposed action will have *significant* adverse impact[s] on the physical or human environments that were not considered because the impacts to the community were not adequately evaluated." 68 Fed. Reg. at 62,644 col. 1 (emphasis added). The existence of a minority or low-income population alone does not establish an admissible contention. Rather, a contention must establish with bases that there is some factor "unique" or "peculiar to those communities" that may result in a disproportionately significant impact on that population (*e.g.*, because of cultural differences). *Id.* Although Petitioners allege that SERI failed to consider adequately "the adverse and disparate environmental impacts of the proposed nuclear facilities" on the minority and low-income community of Claiborne County, they do not assert, let alone provide supporting reasons for, the belief that there will be such impacts, or that these purported impacts on the physical or human environment will be "significant" or "disproportionate" to the more general population within a 50-mile radius.

Petitioners most specific claim under this basis is that "[b]y choosing Mississippi as the geographic area to be compared with Claiborne County, SERI failed to follow the guidance of LIC-203." (Contentions at 19.) Petitioners' claim that SERI should have (1) considered an "overall geographic area" encompassing six other nuclear power plant sites considered as alternative sites and (2) used "national demographic statistics" in evaluating potential impacts on low-income communities. (*Id.* n.12.) These assertions improperly conflate two separate analyses: (1) SERI's "alternative sites" or site-selection analysis and (2) SERI's assessment of EJ-related impacts for the selected or "preferred" site (*i.e.*, Grand Gulf). The guidance in LIC-203 cited by Petitioners to support its claims may be applicable guidance for the EJ component of an applicant's alternative sites analysis. Petitioners, however, do not challenge, at least directly, SERI's alternative sites analysis. *See* ER Section 9.3. In any event, Petitioners do not establish why using a geographic area that encompasses *all* of the alternative site geographic areas is necessary to an adequate GGNS *site-specific* EJ analysis.

The Commission noted in its Draft Policy Statement that the geographic area or scale for a site-specific EJ analysis "should be *commensurate with the potential impact area* and should include a sample of the *surrounding population* as the goal is to evaluate the communities, neighborhoods and areas that may be disproportionately impacted." 68 Fed. Reg. at 62,644 col. 3 (emphasis added). This also is reflected in LIC-203, which states, in relevant part:

> The size, shape, and geographic location of the environmental impact area will vary according to the nature of the impact and *should be consistent with the areas used to review environmental impacts in the EIS.* For example, an environmental impact area may include transmission line rights-of-way, a river or other surface water body, a 10-mile radius, etc. Environmental impact areas may or may not follow political jurisdictions. Typically, the severity of environmental impacts will vary inversely with the distance from the facility; therefore, *the review should be focused on*

> *areas closer to the site.* See Figure 2 for examples of individual environmental impact areas and the larger geographic area.

LIC-203, App. D at D-10 (emphasis added). Thus, a geographic area that spans vast portions or entire regions of the country would greatly exceed the "potential impact area" as contemplated in LIC-203. Likewise, the use of "national demographic statistics" to assess specific impacts on the "surrounding population" would do nothing to inform that assessment.[29] The requisite assessment must still focus on "significant special impacts" that stem from the uniqueness of the surrounding population(s), and Petitioners have not identified any such impacts.[30]

ER Chapters 4 and 5 address the environmental effects of facility construction and operation, respectively. These chapters of the ER consider, *inter alia*, land-use impacts, water-related impacts, ecological impacts, socioeconomic impacts, radiological impacts to construction workers, cooling system impacts, radiological impacts of normal operations, waste management impacts, and transmission system impacts. They also address measures and controls to limit adverse impacts during construction and operation. The potential impacts of facility construction and facility operation (as well as potential mitigation measures or controls that would minimize

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[29] As noted above, LIC-203 provides guidance only and imposes no regulatory requirements on applicants or licensees. Notably, LIC-203 is directed at the NRR Staff to assist it in meeting agency obligations under NEPA and 10 C.F.R. Part 51. That SERI did not utilize the guidance in LIC-2003 referenced by Petitioners — the guidance concerning use of "an overall geographic area that encompasses all of the alternative site geographic areas" — does not in itself establish a genuine dispute on a *material* issue.

[30] For example, LIC-203 refers to "interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action." LIC-203, App. D at D-2. Such factors might include the sensitivity of the community's physical and/or social structure to particular potential impacts. *See id.* Petitioners seem to be arguing that the mere existence of a minority or low-income population creates an adverse or disproportionate impact. This is not the case. One must establish a significant impact from the facility on that population that is disproportionate to a general population in the area around the plant. In this regard, a comparison to a hypothetical population in an area with no proposed plant is irrelevant.

or eliminate such impacts) are summarized in ER Tables 4.6-1 and 5.10-1, respectively. In addition, ER Tables 10.1-1 and 10.1-2 address the "unavoidable adverse impacts" of facility construction and operation. All potential and "unavoidable" impacts were determined to be minimal — *i.e.*, not significant.

ER Sections 4.4 and 5.8, in particular, discuss the socioeconomic impacts of facility construction and operation, including the direct physical effects and social and economic impacts of these activities on the community and surrounding region. In these ER sections, SERI concludes, "based on the information gathered for its Environmental Justice review," that, "while there are substantial minority populations and a few localized low-income populations in the region of the GGNS site, there are no significant adverse impacts as a result of facility construction and operations that would disproportionately affect these populations." *See* ER at 4.4-9, 5.8-10. Petitioners fail to provide a basis to controvert SERI's conclusions regarding the insignificance of the environmental impacts of facility construction and operation on the general population and on minority and low-income populations. Petitioners here do not identify any potential "significant special impacts" that are "attributable to the special character of the community." *Claiborne*, CLI-98-3, 47 NRC at 106; *Private Fuel Storage*, CLI-02-20, 56 NRC at 156. *Cf. Hydro Resources*, CLI-01-4, 53 NRC at 70 (stating that intervenors pointed to no "specific facet" of the subject population's health that conceivably would have altered the Staff's EJ-related conclusions, given the negligible incremental impacts from the proposed uranium mining project).

At bottom, in this basis Petitioners do not establish any genuine dispute regarding the existence of minority and low income populations within 50 miles of the ESP site. More importantly, Petitioners provide no support for the belief that approval of the ESP may result in

disproportionately significant and adverse environmental impacts. They only aver, in general terms, that the ER's purported "distortions are significant, because they underplays [sic] the significance of racial discrimination and racial isolation with respect to the environmental impacts of the proposed reactor(s)." (Contentions at 17.) The Commission, however, has made clear that "[r]acial motivation and fairness or equity issues are not cognizable under NEPA," and, therefore, are not litigable in this proceeding. Draft Policy Statement, 68 Fed. Reg. 62,644 col. 1 & n.3 (also stating that such issues are more appropriately considered under Title VI of the Civil Rights Act, which the NRC lacks authority to enforce in the licensing process) (citing CLI-98-3, 47 NRC at 101-106). In short, Petitioners have not met their burden to demonstrate an admissible EJ issue.

Basis D

Basis D asserts that the ER does not adequately evaluate accident impacts on minority and low-income communities adjacent to the Grand Gulf site because it fails to address the impacts of *severe accidents* on these communities. (Contentions at 20-21.) Petitioners point to the statement in ER Section 5.8.3.2.2 that "[t]he evaluation of postulated accidents is discussed in [ER] Section 7.1," and note that Section 7.1 addresses only design basis accidents, the radiological consequences of which are presumed to be contained within the site boundary. (*Id.*) Petitioners observe that, in contrast, ER Section 7.2 addresses severe accidents, the radiological consequences of which are presumed to extend beyond the facility. (*Id.*) That section is not referenced in Section 5.8.3 of the application. From this "omission" Petitioners conclude that the ER does not address:

- the environmental impacts of severe accidents on the minority and low-income community that lies within the ten-mile emergency planning zone around GGNS;

- the relationship between the site population, the wind directions, and the environmental impacts of a severe accident to Claiborne County;
- the "offsite costs" of a severe accident to Claiborne County; and
- the disparity between the impacts of severe accidents on the adjacent minority and low-income community and the impacts on other communities in the area of impact of the proposed Grand Gulf reactor(s).

(*Id.* at 21.) Basis D is insufficient to support admission of Contention 3.1, because it neither establishes a genuine dispute with SERI on a material issue of law or fact, nor effectively controverts the relevant portions of the application. *See* 10 C.F.R. § 2.309(f)(1)(vi).

Although ER Section 7.2 is not referenced in ER Section 5.8.3.2.2, Section 7.2 nonetheless contains a detailed evaluation of the environmental impacts and "offsite costs" of severe accidents. This evaluation led SERI to reach the following conclusion:

> [B]ased on the NRC and industry implementation of the 1985 policy statement, the generic NUREG-1437 risk evaluations, and the GGNS ESP *site-specific demography and meteorology*, the probability-weighted consequences of atmospheric and (surface and ground) water pathways, and the *societal and economic impacts* for severe accidents for a future nuclear power plant on the GGNS ESP site will also be "Small."

ER at 7.2-8 (emphasis added). As a contention of omission, Basis D therefore is simply wrong. The contention overlooks the severe accident evaluation in the application.

Moreover, as with Basis C, Petitioners do not identify any factors "unique" or "peculiar to" Claiborne County and "other communities in the area of impact" that might result in "disproportionately significant and adverse environmental impacts" from a severe accident, *i.e.*, special impacts that are different from the impacts on the general population and significant from an EJ perspective for this reason. *See* Draft Policy Statement, 68 Fed. Reg. 62,644 col. 1; CLI-02-20, 56 NRC at 156; CLI-98-3, 47 NRC at 106. Petitioners merely assert that the ER

should address the impacts of severe accidents with a particular focus on Claiborne County. However, "[t]he bald assertion that a matter ought to be considered or that a factual dispute exists so as to merit further consideration of that matter is not sufficient." *Private Fuel Storage,* LBP-98-7, 47 NRC at 180 (1998) (citations omitted). Rather, "a petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention." *Id.* (citations omitted). Petitioners again have not met their burden to establish a genuine dispute within the appropriate bounds of an EJ review.

Basis E

Basis E asserts that "[t]he ER also fails to consider the disproportionate *safety and security* risk to Claiborne County due to its lack of economic and material resources to respond to radiological emergencies." (Contentions at 22; emphasis added.) Focusing on the "Emergency Planning Information" portion (Part 4) of the Application — not the ER — Petitioners state that "SERI plans to depend on local fire control, law enforcement, and health care facilities to assist in responding to any emergency that may occur at the new reactor(s), and thereby attempt to prevent or mitigate the impacts of any radiological accidents that may occur at the new reactor(s)." (*Id.*) Petitioners claim that "[t]he ER fails to consider, however, that one of the factors that is 'peculiar' to the minority and low-income community of Claiborne County is its profound lack of adequate resources to respond to such an emergency." (*Id.*) In this regard, Petitioners note that "[e]ach of the major local agencies that are responsible for responding to an emergency at Grand Gulf has major shortages of funding and equipment that seriously impact the agency's *ability to respond to a radiological emergency.*" (*Id.*; emphasis added.) Petitioners point in particular to an "insidious and unique factor," this being the Mississippi Tax Code (*Id.*),

which according to Petitioners gives Claiborne County only 30% of the tax revenue generated by GGNS. (*Id.* at 24-25.)

Basis E does not support admission of Contention 3.1. The basis is a challenge to the Major Features Emergency Plan ("Emergency Plan") provided by SERI in Part 4 of the Application rather than an EJ contention under NEPA. Indeed, the first sentence of Basis E underscores the purported "disproportionate *safety and security* risk to Claiborne County due to its lack of economic and material resources to respond to radiological emergencies." (Contentions at 22; emphasis added.) In the ensuing paragraphs, Petitioners focus on the "ability [of county agencies] to respond to an emergency;" they do *not* identify any disproportionately significant and adverse environmental or socioeconomic impacts, as would be required for an EJ contention under NEPA. For example, Petitioners state only that "*deficiencies in local law enforcement capabilities* are particularly significant in light of the current post-9/11 threat environment," and that "[t]he hospital does not have adequate financial resources *to effectively prepare for and medically manage a radiological emergency* at the existing nuclear power plant, let alone two new reactors." (*Id.* at 23-24; emphasis added.)

Petitioners' safety and security-related concerns relative to the existing and any future GGNS Emergency Plans are outside the scope of an ESP proceeding. As is discussed further below in connection with the proposed emergency planning contention, NRC regulations require that an ESP application "identify physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site, that could pose a significant impediment to the development of emergency plans." 10 C.F.R. § 52.17(b)(1). In this regard, the GGNS site already has an emergency plan, confirming that there are no clearly limiting

physical characteristics of the site. The following excerpt from Part 4 of the Application discusses this fact:

> Approved plans governing emergency preparedness and response activities are *currently in place* for the GGNS Unit 1 facility. It is expected that these plans and implementing procedures would be expanded and modified as needed to support the proposed new facility. *Those implementation details would be developed in cooperation with participating agencies and organizations at the COL stage.* This Plan, presenting the major features of an emergency plan for the proposed new facility, describes or summarizes applicable portions of those plans currently in place *and how they apply, or will apply,* to the proposed new facility.

GGNS Application, Part 4, "Emergency Planning Information," at 1-1 (emphasis added). Issues associated with implementation of the Emergency Plan could be more appropriately litigated in a future COL proceeding for GGNS. Allegations concerning the current GGNS Emergency Plan would be more appropriately raised in a Section 2.206 petition related to GGNS.[31]

Assuming, for the sake of argument, that Basis E could be viewed as raising an EJ issue under NEPA, it still would fail to pass muster. Basis E only enumerates purported resource constraints currently affecting certain Claiborne County public or social service institutions. It does not identify any disproportionately significant and adverse environmental or socioeconomic impacts (*i.e.*, unique to the population of interest) cognizable under NEPA.[32] Underfunding of

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[31] To the extent that Petitioners are seeking to litigate safety, security, and/or environmental challenges related to terrorism, they are impermissibly challenging NRC requirements and raising an issue outside the scope of this proceeding. *Cf. Pacific Gas & Elec. Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-02-23, 56 NRC 413, 447-48 (2002) (dismissing a contention in which the intervenor sought to litigate safety and environmental challenges related to terrorism, because the contention constituted an impermissible challenge to existing NRC requirements governing ISFSI physical security standards), *aff'd on other grounds*, CLI-03-1, 57 NRC 1 (2003); *Private Fuel Storage* (Independent Spent Fuel Storage Installation), LBP-01-37, 54 NRC 476, 484-85 (2001)(same), *aff'd on other grounds*, CLI-02-25, 56 NRC 340 (2002).

[32] In fact, Appendix A to Part 4 of the Application documents letters from responsible organizations. The Claiborne County Sheriff Department, for example, confirmed its

emergency planning support is not a matter peculiar to any minority group; it would presumably affect all in the area equally. Moreover, Basis E does not even refer to, let alone challenge, the analysis and conclusions set forth in ER Section 5.8.2 (Social and Economic Impacts of Station Operation), which considers, *inter alia*, the impacts of future station operation on local public services, public safety, and social services. "[A] contention that fails directly to controvert the license application at issue or that mistakenly asserts the application does not address a relevant issue is subject to dismissal." *Private Fuel Storage*, L BP-98-7, 47 NRC at 181 (citations omitted).

Finally, Petitioners' complaints regarding the Mississippi Tax Code also fall outside the scope of this proceeding. It is well-established that "[a]ny issues of law or fact raised in a contention must be material to the grant or denial of the license application in question, *i.e.*, they must make a difference in the outcome of the licensing proceeding so as to entitle the petitioner to cognizable relief." *Id.* at 179. The particular prescriptions of the Mississippi Tax Code, however fair or unfair, clearly are not within the purview of the Commission or the Licensing Board and, therefore, cannot be the subject of relief in this proceeding.

Basis F

In Basis F, Petitioners maintain that the ER fails to address the effect of adding two new reactors to the Grand Gulf site on the property values and the economic health of Claiborne County. In particular, Petitioners make the following claims:

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willingness to work with SERI and lack of knowledge of any "significant impediments to the development and implementation of emergency plans for the site that could include a future nuclear facility (or facilities)." Letter from Joseph L. Blount (SERI), to Frank Davis (Claiborne County Sheriff Department) (Apr. 11, 2003) (with concurrence signature of Mr. Davis).

- It is appropriate to evaluate the impacts of new nuclear facilities on property values in a minority and low-income community. (Contentions at 25; citing *Claiborne* CLI-98-3, 47 NRC at 108-09.)
- The presence of GGNS has not reduced the relatively high poverty level of Claiborne County for the past twenty-plus years. (*Id.*)
- "White flight" from the County has continued at a steady rate. (*Id.*)
- Under the circumstances, property values are likely to decline if a new "hazardous facility" is located in the community. (*Id.*)
- The ER also fails to evaluate the economic impacts on Claiborne County of imposing additional economic burdens on the County for emergency preparedness, without also providing sufficient tax revenue to the County to support those services. (*Id.* at 25-26.)

Basis F fails to support the admission of Contention 3.1, because it lacks adequate factual or expert support and raises issues outside the scope of this proceeding. *See* 10 C.F.R. § 2.309(f)(1)(iii), (v).

Petitioners' assertions are conclusory, and the accompanying observations, even if factually correct, fail to provide adequate support for Petitioners' claims. The implied failure of current GGNS operations to reduce poverty levels in Claiborne County, or to halt or slow "white flight," in no way speaks to the issue of whether possible future operations at the ESP site would adversely affect property values or the economy in Claiborne County. In this regard, Petitioners provide no factual, documentary, or expert support for the assertion that issuance of an ESP or the addition of new reactors to GGNS will "likely" cause a decline in property values.

In CLI-98-3, which Petitioners cite, the Licensing Board (and the Commission on appeal) found the NRC Staff's assessment of property-value impacts of the proposed uranium enrichment facility to be deficient, in view of "both credible and convincing" expert testimony that the Board characterized as "a reasoned, persuasive, and unchallenged explanation why the

[proposed facility] will negatively affect property values in these minority communities." *Claiborne*, CLI-98-3, 47 NRC at 108 (quoting *Louisiana Energy Servs.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 410 (1996), *aff'd in part, rev'd in part, remanded on other grounds*, CLI-98-3, 47 NRC 77 (1998)). Although Petitioners here need not provide factual support that is in formal evidentiary form, or that is sufficient to withstand a summary disposition motion, they *are* required to provide references to the specific sources and documents on which they intend to rely to support their position. *See* 10 C.F.R. § 2.309(f)(1)(v). *See also Georgia Tech Research Reactor*, LBP-95-6, 41 NRC at 305 (stating that a petitioner is obligated to provide the analyses and supporting expert opinion showing why its bases support its contention, and that a licensing board may not make factual inferences on a petitioner's behalf); *Private Fuel Storage*, LBP-98-7, 47 NRC at 180. Petitioners fail to meet this burden.

Petitioners' final assertions regarding additional economic burdens associated with emergency preparedness and the lack of sufficient tax revenue merely reiterate concerns stated by Petitioners in Basis E above. Accordingly, these assertions, which also lack any factual or expert support, should be rejected as beyond the scope of this proceeding.

Basis G

In Basis G, Petitioners submit that the ER does not evaluate the disparity in distribution of economic benefits yielded by the proposed reactors that might be built at the GGNS site. (*See* Contentions at 26.) Petitioners claim that ER Section 8.8.3.2.3 is deficient because "it does not address the fact that the new plant(s) will create few new jobs for the local community," or that "most of the tax revenue from the new reactors will go out of the county." (*Id.*). Citing historical employment data for Claiborne County, and that "only 20% of Grand

Gulf's employees live in Claiborne County," Petitioners posit that "[t]he ER should take a 'hard look' at this disparity in economic *benefits*." (*Id.* 26-27.)

Petitioners' allusion to NEPA's "hard look" concept does not make the issue raised in Basis G cognizable under that statute or NRC regulations. Indeed, Basis G turns the relevant inquiry under NEPA on its head.[33] As stated by the Commission, the proper inquiry centers on "identifying and weighing *disproportionately significant and adverse environmental impacts* on minority and low-income populations." 68 Fed. Reg. 62,644 col. 1 (emphasis added). In the *Private Fuel Storage* proceeding, the Commission squarely rejected the type of argument proffered by Petitioners here. The Commission stated unequivocally:

> In our view, the executive order [E.O. 12898], and NEPA generally, do not call for an investigation into disparate economic benefits as a matter of environmental justice . . . . We see nothing in the executive order or in NEPA to suggest that a failure to receive an economic benefit should be considered tantamount to a disproportionate environmental impact.

CLI-02-20, 56 NRC at 154. Based on this determination, the Commission found that, by focusing on "disparate economic benefits, not on disparate environmental effects," the petitioner and the Licensing Board had improperly conflated the two concepts, in contravention of NEPA. *Id.* at 153-54. In view of the Commission's precedent, the Licensing Board must reject Basis G.

Basis H

In Basis H, Petitioners assert that "[o]nce the ER has provided a sufficiently detailed description of the environmental impacts of the proposed new reactor(s) on the surrounding minority and low-income community, SERI must evaluate reasonable alternatives

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[33] This is because Petitioners have acknowledged an economic benefit, as opposed to asserting a significant and adverse environmental impact.

that would avoid or mitigate those impacts." (Contentions at 27, citing 10 C.F.R. § 51.45(b)(3).) Petitioners assert more specifically that:

> SERI must conduct a *new evaluation of alternatives* in consideration of their environmental impacts on low-income and minority communities, including the no-action alternative, alternative sites, alternatives for reducing the off-site impacts of severe accidents, and alternatives for distributing the benefits of the new plant(s) more equitably. (*Id.*; emphasis added).

Section 51.45(c) states that an ER "shall include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of *alternatives to the proposed action*, and alternatives available for reducing or avoiding adverse environmental effects." *Id.* (emphasis added). Contrary to Petitioners' suggestion, Section 51.45(c) does not require an applicant or licensee to define or evaluate alternatives based *solely* on impacts on minority populations, including alternatives "for reducing the off-site impacts of severe accidents" or "for distributing the benefits of the new plant(s) more equitably." (Contentions at 27.)

More broadly, 10 C.F.R. Part 51 provides that the NRC Staff's FEIS "will present the environmental impacts of the proposal and the alternatives in comparative form," and that, "[w]here important to the comparative evaluation of alternatives, *appropriate mitigating measures of the alternatives* will be discussed." 10 C.F.R. Part 51, App. A to Subpart A, ¶ 5. (emphasis added). While Part 51 identifies the potential need to discuss "alternatives available for reducing or avoiding adverse environmental effects" — *i.e.*, mitigation measures — this presupposes the existence of "adverse environmental impacts." As set forth above in response to Petitioners' other bases for Proposed Contention 3.1, Petitioners have not set forth sufficient supporting reasons for the notion that the proposed action — NRC approval of the Grand Gulf ESP — will have "disproportionately significant and adverse environmental impacts" on a

minority and low-income population, or any other population. Therefore, there is no basis to require a discussion of mitigation alternatives.[34]

In any event, Section 9 of the ER contains a detailed environmental impact analysis with respect to alternatives to the proposed action. This analysis includes discussion of the changing electricity generation marketplace, the no-action alternative (Section 9.1.2), alternative energy sources (Section 9.2), alternative sites (Section 9.3), and alternative plant and transmission systems (Section 9.4). Section 9.3 identifies the sites considered by SERI, describes the Initial Screening and Preferred Site Selection processes, and presents SERI's consideration of generic hypothetical "greenfield" and "brownfield" sites. Petitioners' statement that SERI "has not taken environmental justice issues into account in weighing [] alternatives" is incorrect. (Contentions at 27.) ER Section 9.3.5 indicates that, as part of its Preferred Site Selection process, SERI considered data related to socioeconomic issues, with EJ being one of the enumerated socioeconomic considerations. *See* ER at 9.3-4. Accordingly, Petitioners have failed to demonstrate a genuine dispute with respect to this aspect of the application.

b. Proposed Contention 3.2 — Inadequate Discussion of Severe Accident Impacts

Proposed Contention 3.2 asserts that the SERI ER "discussion of severe accidents is inadequate, because it relies on the findings and conclusions of NUREG-1437, Vol. 1, the Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants (1996) ("NUREG-1437"), without providing specific design information that would justify the

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[34] Again, there is a presumption in this basis concerning an EJ review that is inaccurate. An EJ review looks to a defined impact area to determine whether there are communities within that area that will suffer disproportionate impacts due to unique characteristics of the communities (characteristics other than, that is, their mere existence). Likewise, in an alternatives analysis the focus is *not* to identify an area where no minorities exist; the focus is on mitigation of any unique or disproportionate impacts that do exist.

applicability of the NUREG." (Contentions at 27.) As the principal basis for this contention, Petitioners assert that "the NRC Staff has set limits on the use of NUREG-1437 to support or substitute for the severe accident analysis required of an ESP application." (*Id.* at 28.) These purported "limits" are deduced by Petitioners from two separate letters from the NRC Staff to the Nuclear Energy Institute ("NEI").[35]

Petitioners' basis rests on the assertion that SERI has failed to comply with the two Staff "guidance" letters. The April 2003 NRC Letter referenced by Petitioners states that "although the environmental impacts of the construction and operation of a nuclear facility located on the proposed site may be similar to those identified in the GEIS [NUREG-1437], it is incumbent on the ESP applicant to justify its conclusion regarding these impacts." The June 2003 NRC Letter, in turn, notes that "[t]he *NRC will perform its review* on severe accident environmental impacts in accordance with ESRP [Early Site Review Plan] Section 7.2," and that, "even in the absence of a detailed plant design (*e.g.*, the specific reactor type or technology is undecided), a severe accident impacts analysis is technically feasible at the ESP stage using a PPE approach and the existing guidance in ESRP Section 7.2." June 2003 Letter at 2 (emphasis added). In this letter, the Staff identifies some of the potential components of its analysis, including characterizing the spectrum of credible releases from candidate future plant designs in terms of representative source terms and their respective frequencies, and using these release characteristics in conjunction with site-specific population and meteorology to determine site-specific risk impacts for the surrogate design. *See id.* Alternatively, the Staff states that

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35 Letter from James E. Lyons (NRC), to Dr. Ronald L. Simard (NEI), "Resolution of Early Site Permit Topic 10 (ESP-10), Use of License Renewal Generic Environmental Impact Statement (NUREG-1437) for Early Site Permits" (April 1, 2003) ("April 2003 NRC Letter"); Letter from James E. Lyons (NRC) to Dr. Ronald L. Simard (NEI) "Response to

"[r]elease characteristics *could* be developed through a survey of severe accident analyses for previously certified ALWRs and/or operating reactors," or "[r]isk impacts *could* be assessed using the same metrics as in previous plant-specific and generic EISs." *Id.* (emphasis added).

The applicable regulatory requirement is set forth in 10 C.F.R. § 52.17. That regulation provides, in pertinent part, that the ER "must focus on the environmental effects of construction and operation of a reactor, or reactors, which have characteristics that fall within the *postulated site parameters* . . . ." 10 C.F.R. § 52.17 (a)(2) (emphasis added). There is no regulatory basis — and no basis in the two guidance letters — for the assertion that SERI must provide "specific design information" to justify the evaluation of severe accidents. Stated another way, in an ESP proceeding such as this one, the focus of the environmental review is on determining *site suitability*, not the suitability of the ultimate design and operation of a plant. With respect to severe accidents in particular, the plant information regarding dose consequences need not be specific to a reactor design, but need only consider bounding values for releases in order to assess *site suitability* considerations. Proposed Contention 3.2 therefore fails to demonstrate a genuine dispute on a material issue.

As discussed above, the ESP application employs the PPE approach in lieu of specifying a particular plant design or reactor vendor.[36] Accordingly, the application provides an evaluation of the selected site considering a bounding set of postulated design parameters for a group of potential plant candidates under consideration. The PPE parameters, along with information about actual site features (*i.e.*, "site characteristics"), support the 10 C.F.R. § 52.17 analyses required to demonstrate site suitability.

Letter on Early Site Permit Topic 12 (ESP-12), NEPA Considerations of Severe Accident Issues" (June 25, 2003) ("June 2003 NRC Letter").

36 *See* SAR § 1.3.

SERI's PPE approach is consistent with the NRC's guidance. In SECY-91-041, for example, the NRC Staff stated as follows with respect to site environmental reviews performed in support of ESP applications:

> In the site environmental review, the staff examines the effects of the proposed plant on the environment. *Although the specific type or design of the plant may not be known at the time of the ESP review*, 10 CFR 52.17 requires the applicant to submit information (in an environmental report) that the staff can use to place *an upper bound on the environmental effect* of the plant's operation.[37]

Similarly, in NRR Review Standard (RS)-002, the Staff acknowledges that, for an ESP application that employs the PPE approach, the applicant's assessment of the environmental impacts of constructing and operating a nuclear plant(s) will not be based on a specific design. *See* RS-002, Attach. 3 at 1 n.1. Rather, the Staff notes, "PPE values will be provided as a surrogate for the design information identified in the ESRP. These PPE values will provide *bounding design parameter information for a range of reactor designs*, instead of for only one design."[38] *Id.* (emphasis added).

Consistent with the PPE approach, SERI has based its assessment of the environmental impacts of severe accidents on the generic environmental impact statement ("GEIS") analyses in NUREG-1437. The GEIS was based on existing assessments of severe accident impacts presented in numerous Final Environmental Statements published after 1980, for a representative set of U.S. nuclear plants and sites, including GGNS (*see* NUREG-1437,

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37 SECY-91-041, "Early Site Permit Review Readiness" (Feb. 13, 1991) at 5.

38 Similarly, NUREG-1555, "Environmental Standard Review Plan" (Oct. 1999), Section 7.2, "Severe Accidents," contemplates that only a limited amount of plant-specific data need be considered in the Commission's review, particularly at the ESP stage. Section 7.2 states that "[t]he review directed by this plan includes consideration of a limited amount of plant specific data in sufficient detail to appropriately evaluate the dose consequences for severe accidents." NUREG-1555 at 7.2-1.

Section 5.3.3 at 5-13). *See* ER at 7.2-1. SERI accounted for site-specific environmental considerations (*i.e.*, population and meteorology) in assessing severe accident impacts, as described in Section 7.2 of the ER. *Id.* SERI concluded that the factors for the GGNS ESP site are not substantially different from those factors identified for previously analyzed sites and, thus, that the GGNS ESP site will not be substantially different from the acceptable environmental impacts identified for the previously analyzed sites, and would be within the range of risk previously determined to be "small." *Id.* at 7.2-2 and 7.2-7. This approach is, in fact, consistent with the Staff's suggestions in the June 2003 NRC Letter regarding possible examination of "severe accident analyses for previously certified ALWRs and/or operating reactors," or use of "the same metrics as in previous plant-specific and generic EISs."

Petitioners do not specifically contest the adequacy of the PPE approach used by SERI, nor directly controvert the discussion in ER Section 7.2. In short, Petitioners do not establish a genuine dispute with respect to SERI's compliance with Section 52.17(a)(2). Petitioners mistakenly assert only that, "[c]ontrary to the guidance of the [April 2003 and June 2003 NRC Letters], the ER for the Grand Gulf site fails to justify the use of NUREG-1437 as a surrogate for a severe accident analysis for the proposed new Grand Gulf reactor(s)." (Contentions at 29-30.) Petitioners do not explain, as required by Section 2.309(f)(1), *why* this is so, or *why* the purported failure is even *material* to SERI's compliance with Section 52.17(a)(2). That is, there is no basis that establishes why the PPE parameters and "site characteristics" information provided by SERI are insufficient to demonstrate site suitability, or why there is insufficient justification for use of NUREG-1437. For these reasons, Proposed Contention 3.2 does not establish a genuine dispute.

As discussed above, the ER for an ESP need only provide sufficient information to allow the NRC Staff to place an upper bound on the environmental effect of the plant's operation, including the effects of severe accidents.[39] If the severe accident impacts and mitigation alternatives evaluated for the ESP do not bound a future selected reactor design, then the *future applicant* must justify, and the Commission must approve, the variances during a *construction permit, operating license, or combined license* proceeding — not during an ESP proceeding.[40] *See* 10 C.F.R. § 52.39(b). Furthermore, reactor design features for the mitigation of severe accidents are considered during design certification or combined license proceedings, and need not be considered as part of the ESP proceedings.[41] The proposed contention is baseless in the context of an ESP and is inadmissible in this proceeding.

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39 Indeed, RS-002 explicitly states that "detailed design information pertaining to structures, systems, and components called for in the ESRP need not be submitted by the applicant in an ESP application employing the PPE approach." RS-002, Attach. 3 at 2.

40 On this point, RS-002 (Attach. 3 at 2) provides that:

> During the review of a COL application referencing an ESP, the staff will assess the environmental impacts of the construction and operation of a *specific plant design.* If the environmental impacts addressed in the EIS written at the ESP stage are found to be bounding by the staff, no additional analysis of these impacts is required, *even if the ESP applicant employed the PPE approach.* However, environmental impacts not considered or not bounded at the ESP stage should be assessed at the COL stage (emphasis added).

41 Specifically, the Commission has determined that severe accident mitigation design alternatives ("SAMDAs") are part of the design certification process, and are subject to a confirmatory analysis performed in connection with the combined license proceeding. This analysis must confirm that the severe accident environmental risk impact assessment required for the ESP is consistent with the "accident consequence assessment that will have been performed for design certification." *See* Staff Requirements Memorandum, "SECY-91-041 — Early Site Permit Review Readiness" (Apr. 9, 1991) at 2. *See also,* SECY-91-041 at 5 (stating that "[t]he staff has determined that Severe Accident Mitigation Design Alternatives (SAMDAs) should be addressed as part of the design certification process").

c. Proposed Contention 3.2.1 — Failure to Evaluate Whether and in What Time Frame Fuel Generated by Proposed Reactors Can Be Safely Disposed Of

In this proposed contention, Petitioners assert that the ER is deficient "because it fails to discuss the environmental implications of the lack of options for permanent disposal of the irradiated (*i.e.*, 'spent') fuel that will be generated by the proposed reactors if they are built and operated." (Waste Confidence Contentions at 2.) Petitioners argue that the NRC's Waste Confidence decision, issued in 1984 and most recently amended in 1999, is inapplicable because it applies to plants that are *currently operating*, not *new* plants. (*Id.* at 3.) Further, Petitioners argue, the spent fuel and other high-level radioactive wastes generated at the proposed new reactors could not be "disposed of" unless and until a second national repository is operating, thereby creating the potential for indefinite onsite storage. (*Id.* at 6).

Proposed Contention 3.2.1 is inadmissible because it is a direct challenge to the Commission's Waste Confidence Rule codified at 10 C.F.R. § 51.23. NRC regulations state that "no rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities, source material, special nuclear material, or byproduct material, is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding." 10 C.F.R. § 2.335(a).[42]

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[42] Moreover, in individual adjudicatory proceedings, the Commission repeatedly has sought to "make clear . . . that a petitioner in an individual adjudication cannot challenge generic decisions made by the Commission in rulemakings." *North Atlantic Energy Serv. Corp.* (Seabrook Station, Unit 1) CLI-99-6, 49 NRC 201, 217 n.8 (1999) (citing *Massachusetts v. NRC*, 924 F.2d 311, 330 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 899 (1991); *Curators of the Univ. of Missouri*, CLI-95-1, 41 NRC 71, 170-71 (1995); *American Nuclear Corp.* (Revision of Orders to Modify Source Materials Licenses), CLI-86-23, 24 NRC 704, 708-10 (1986); *Peach Bottom*, ALAB-216, 8 AEC at 21 n.33 (1974); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-82-119A, 16 NRC 2069, 2073 (1982).

The Commission's Waste Confidence Rule is based on the findings of the Commission's Waste Confidence Decision ("WCD"). The Commission issued its initial WCD on August 31, 1984. *See* Final Waste Confidence Decision, 49 Fed. Reg. 34,658 (Aug. 31, 1984). This decision assessed the degree of assurance, then available, that radioactive waste can be disposed of safely; when such disposal or offsite storage would be available; and whether radioactive waste can be stored safely on site after expiration of existing facility licenses until offsite disposal or storage is available. The Commission reevaluated its initial WCD in 1990, and affirmed, with some changes, the findings of the original decision. *See* Review and Final Revision of Waste Confidence Decision, 55 FR 38,474 (Sept. 18, 1990). The Commission also amended 10 C.F.R. § 51.23 to conform to the revised findings. *See id.* On December 6, 1999, the Commission issued a status report on the WCD. The Commission concluded that "experience and developments since 1990 confirm the Commission's 1990 Waste Confidence findings." Status Report on the Review of the Waste Confidence Decision, 64 Fed. Reg. 68,005 (Dec. 6, 1999).

As codified in Section 51.23(a), the Waste Confidence Rule provides that:

> The Commission has made a generic determination that, if necessary, spent fuel generated in *any reactor* can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of *any reactor* to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time.

10 C.F.R. § 51.23(a) (emphasis added). Due to the generic determination in Section 51.23(a), there is no need for applicants or the NRC Staff in individual licensing cases to consider the

environmental impacts of the onsite storage of spent fuel for the defined period following the expected expiration of the license. Moreover, the Commission's generic finding addresses the availability of a repository following the defined interim storage period; ultimate disposal issues need not be addressed in individual licensing cases.

Petitioners assert that the ER is deficient because the Waste Confidence Rule is not applicable because it concerns plants that are "currently operating," as opposed to "new" plants. However, Petitioners' distinction between "currently operating" and "new" reactors is a specious one. Section 51.23(a) states, in unequivocal terms, that the Commission's generic determination applies to the storage and disposal of spent fuel generated in "any reactor." It is well-established that interpretation of an agency regulation begins with the language and structure of the provision itself. *See Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit 3), CLI-01-10, 53 NRC 353, 361 (2001) (citing *Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), CLI-97-15, 46 NRC 294, 299 (1997)). The reference to "any reactor" would plainly include new reactors not yet licensed. Petitioners cite no administrative or regulatory history, or other Commission precedent, to support their belief that Section 51.23(a) applies only to "currently operating" reactors. Instead, they offer only the *ipse dixit* that "the Commission [has given] no indication that it has confidence that repository space can be found for spent fuel or other high-level radioactive waste from new reactors licensed after 1999." (Waste Confidence Contentions at 3.)

In fact, the regulatory history of the Waste Confidence Rule demonstrates just the opposite. In the 1990 revision to the WCD, the Commission, in framing the following issue for consideration, referred explicitly to new reactors:

> Is there sufficient uncertainty in total spent fuel projections (*e.g.*, from extension-of-life license amendments, renewal of operating licenses for an

> additional 20 to 30 years, *or a new generation of reactor designs*) that this Waste Confidence review should consider the institutional uncertainties arising from having to restart a second repository program?

55 Fed. Reg. at 38,501 col. 2 (emphasis added). In addressing this issue, the Commission concluded that "a second repository, or additional capacity at the first, would be needed only to accommodate the additional quantity of spent fuel generated during the later years of these [existing] reactors' operating lives." *Id.* at 38,503-04. The Commission then noted that:

> The availability of a second repository would permit spent fuel to be shipped offsite well within 30 years after expiration of these reactors' [operating licenses]. *The same would be true of the spent fuel discharged from any new generation of reactor designs.*

Id. (emphasis added). Clearly, therefore, the Commission encompassed a new generation of reactors as well as the prospect of a second repository in its generic determinations.[43]

In view of the above, it is clear that Proposed Contention 3.2.1 is no more admissible than previously-rejected contentions challenging the Waste Confidence Rule in other NRC adjudicatory proceedings. *See, e.g., Oconee*, CLI-99-11, 49 NRC at 344 (1999) (discussed below); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 161-62, 165, *aff'd*, CLI-01-17, 54 NRC 3 (2001) (citing *Oconee*, CLI-

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[43] Petitioners' assertions also are contrary to conclusions reached by the NRC Staff as recently as 2002. Specifically, in 2002, the Staff documented its positions on certain legal and financial issues related to modular plant licensing, merchant plant licensing, and high-temperature gas-cooled reactor licensing. *See* SECY-02-0180, "Legal and Financial Policy Issues Associated with Licensing New Nuclear Power Plants" (Oct. 7, 2002). One of the issues was whether pebble bed modular and gas turbine-modular helium reactors — types of advanced *new* reactors — fall within the scope of the NRC's Waste Confidence Rule. Even though no such reactors are currently operating in the U.S., the Staff concluded that "PBMR and GT-MHR facilities appear to be within the scope of the generic determination in Section 51.23(a)." SECY-02-0180 at 4, Attach. at 8-11. The Staff specifically noted that, "[i]n the Commission's 1990 re-evaluation of its WCD, the Commission modified Finding 4 to state that spent fuel generated in *any reactor* can be stored safely and without significant environmental impacts for at least 30 years beyond

99-11, 49 NRC at 343) (rejecting two separate petitioners' proposed environmental contentions on waste storage as impermissible challenges to 10 C.F.R. § 51.23(a), *i.e.*, the Waste Confidence Rule). In *Oconee*, the Commission summed up its position as follows:

> The Commission sensibly has chosen to address high-level waste disposal generically rather than unnecessarily to revisit the same waste disposal questions, license-by-license, when reviewing individual applications. High level waste storage and disposal, we have said, "is a national problem of essentially the same degree of complexity and uncertainty for every renewal application and it would not be useful to have a repetitive reconsideration of the matter." 61 Fed. Reg. 66,537, 66,538 (Dec. 11, 1996). The petitioners have presented no reason for the Commission to depart from its generic waste storage determinations in this proceeding and instead litigate the question in an individual case. If petitioners are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication.

Oconee, CLI-99-11, 49 NRC at 345. Petitioners' Proposed Contention 3.2.1 must be rejected for the same reasons. Any argument directed at the validity of the Waste Confidence Rule needs to be pursued through rulemaking.[44]

d. Proposed Contention 3.2.2 — Even if the Waste Confidence Decision Applies to This Proceeding, It Should Be Reconsidered

In this proposed contention Petitioners argue that, even if the Commission's Waste Confidence Decision applies to this proceeding, "it should be reconsidered, in light of

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the licensed life for operation, including the term of revised or renewed licenses." *Id.*, Attach. at 10 (citing 55 Fed. Reg. at 38,509) (emphasis added).

[44] Petitioners specifically assert the need for a second repository given the volume of spent fuel and other high-level radioactive waste being generated by the current generation of nuclear reactors. However, the Commission, in the 1990 reevaluation of the Waste Confidence Rule, expressed confidence that, "if the need for an additional repository is established, Congress will provide the needed institutional support and funds, as it has for the first repository." 55 Fed. Reg. at 38,502 col. 1. But, in any event, the decisions to pursue and fund construction of a second repository reside with entities other than the NRC, *i.e.*, DOE and Congress. The actions of DOE and Congress are outside the scope of this proceeding and beyond any relief that can be granted here.

significant and pertinent unexpected events that raise substantial doubt about its continuing validity, *i.e.*, the increased threat of terrorist attacks against U.S. facilities." (Waste Confidence Contentions at 7.) Petitioners specifically request that the Commission "reconsider" its Waste Confidence Rule in view of:

> (a) the obvious attractiveness and vulnerability of spent fuel to terrorist attack, (b) the Secretary of Energy's recognition of the relationship between homeland security and assured capacity for timely spent fuel disposal; and (c) the Commission's explicit statement in the [1999] Waste Confidence status review that it would undertake a comprehensive reevaluation of the Waste Confidence findings if "significant and pertinent unexpected events" occur raising substantial doubt about the continuing validity of the Waste Confidence findings. (Waste Confidence Contentions at 9.)

Petitioners contend that "the catastrophic terrorist attacks upon the United States on September 11th, 2001 constituted significant and pertinent unexpected events that raise substantial doubts about the continuing validity of the third and fourth findings of the revised Waste Confidence Decision." (*Id.* at 7.)

Proposed Contention 3.2.2 is clearly not admissible in this proceeding. As explicitly framed by Petitioners, the contention asks the Commission to "reconsider" a generic rule on waste storage. However, as the Commission made clear in *Oconee*, "[i]f [p]etitioners are dissatisfied with our generic approach to the [waste storage] problem, their remedy lies in the rulemaking process, not in this adjudication." *Oconee,* CLI-99-11, 49 NRC at 345; *see also Connecticut Yankee Atomic Power Co.* (Haddam Neck Plant), CLI-03-7, 58 NRC 1, 7 (2003) (stating that "[i]f our safety regulations are in any way inadequate and need revision, the

appropriate vehicle to ask the Commission to set a new standard is a petition for rulemaking under 10 C.F.R. § 2.802").[45]

The Commission has also provided a procedure whereby a party to a proceeding can seek a waiver of a regulation it believes should not be applicable. The requirements for seeking such a waiver are set forth in 10 C.F.R. § 2.335(b), which provides that a party to an adjudicatory proceeding "may petition that the application of a specified Commission rule or regulation or any provision thereof . . . be waived or an exception made for the particular proceeding." 10 C.F.R. § 2.335(b). Further, "[t]he sole ground for petition of waiver or exception is that *special circumstances* with respect to the subject matter of the *particular proceeding* are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted." *Id.* (emphasis added). Petitioners have not availed themselves of this procedure in Proposed Contention 3.2.2, and have provided in the basis only generic considerations that would apply to any reactor or site. The Commission has stated unambiguously that "[w]aiver of a Commission rule is simply not appropriate for a generic issue." *Haddam Neck*, CLI-03-7, 58 NRC at 8 (citing *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-80-16, 11 NRC 674, 675 (1980)).[46]

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[45] Indeed, to date, the Commission's Waste Confidence Rule has evolved through the use of the rulemaking process and related notice and comment procedures, not on an *ad hoc* basis in individual adjudications.

[46] The Petitioners' request is directly analogous to the request made by the intervenor in the Haddam Neck license termination proceeding. That intervenor requested that the Commission reconsider the adequacy of the dose standard (25 mrem/year) set forth in 10 C.F.R. § 20.1402. There, the Commission held: "Without referring to any special circumstances peculiar to the Haddam Neck site, [the intervenor] simply asks the Commission to reconsider the standard itself. We will not do so in this adjudicatory proceeding." *Haddam Neck*, CLI-03-7, 58 NRC at 8.

Finally, to the extent the contention asks the Licensing Board to consider "whether nuclear power should be phased out as quickly as possible," it seeks an inquiry that is beyond the scope of this proceeding, and even beyond the regulatory jurisdiction of the Commission. "The NRC is not in the business of crafting broad energy policy involving other agencies and non-licensee entities." *Hydro Resources,* CLI-01-04, 53 NRC at 55 (2001); *see also Private Fuel Storage L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-07, 59 NRC __ (slip op. Mar. 2, 2004) at 2 (stating that a Part 72 "licensing proceeding is not an open forum for discussing the country's need for energy and spent fuel storage").

In summary, Proposed Contention 3.2.2 fails to establish a genuine dispute with SERI on a material issue of law or fact and seeks relief that cannot be granted in this adjudicatory proceeding. Petitioners' request for "reconsideration" of the Commission's Waste Confidence Rule must be pursued by petition for rulemaking. Insofar as Proposed Contention 3.2.2 might be construed as a request for a waiver of 10 C.F.R. § 51.23 in this proceeding, Petitioners do not comply with or meet the procedural and substantive standards for such a waiver imposed by Section 2.335 and Commission precedent.

3. Emergency Planning Contentions

a. Proposed Contention 4.1 — Emergency Planning Deficiencies

In this contention Petitioners claim that "SERI's ESP application is inadequate because it fails fully to identify 'physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site that could pose a significant impediment to the development of emergency plans.' 10 C.F.R. § 52.17(b)(1)." (Contentions at 31.) In this regard, Petitioners aver that Part 4 of the ESP application "fails to identify the significant impediment to the development of emergency plans posed by the gross inadequacies in offsite

emergency response facilities, including the Claiborne County Sheriff's Department, the Claiborne County Fire Department, and the Claiborne County Hospital." *Id.*

This contention must be rejected as a matter of law because it misconstrues the meaning of 10 C.F.R. §§ 52.17, 52.18, and 52.21. Specifically, these regulations require an ESP applicant to identify the site's unique "physical characteristics." 10 C.F.R. § 52.17(b)(1). Then, within the context and framework of those unique "physical characteristics," the NRC must determine — in consultation with FEMA — whether such characteristics significantly impede the development of emergency plans. *Id.* § 52.18.[47] The proposed contention has no bearing on physical characteristics of the site. In its focus on resources such as funding, the contention raises implementation issues that are premature for future reactors and in the wrong forum for the existing GGNS.

Petitioners acknowledge that SERI has identified "physical characteristics" of the proposed site in Part 4 of the Application — "Emergency Planning Information." (Contentions at 31.) Petitioners then make a leap, absent the requisite bases and specificity, and conclude that existing emergency response facilities in Claiborne County are laden with "gross inadequacies." *Id.* Petitioners further aver that "[w]hile local officials may be willing to develop emergency plans for the new reactors, it is clear that they lack sufficient resources to develop effective emergency plans." (Contentions at 32.) Aside from the complete lack of basis for these assertions, the issue of financial resources is outside the scope of Part 52 ESP requirements as it bears no nexus to the identification of "physical characteristics" required by Section 52.17(b)(1). Funding issues may pertain to current regulatory compliance with respect to GGNS (to the extent they have any basis in fact). These would need to be pursued in accordance with 10 C.F.R.

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[47] Petitioners' citation to 10 C.F.R. § 52.19 appears to be in error.

§ 2.206. Funding issues that may pertain to future reactors would need to be raised in a CP or COL proceeding. The contention cannot be admitted in this ESP proceeding.

IV. CONCLUSION

For the reasons set forth above, SERI opposes admission of all of the contentions proffered by the NAACP, NIRS, Public Citizen, and the Sierra Club. None of the proposed contentions meets the Commission's contention admissibility requirements pursuant to 10 C.F.R. § 2.309(f). Accordingly, Petitioners' Petitioners' Hearing Request and Petition to Intervene should be dismissed.

Respectfully submitted,

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Dated in Washington, District of Columbia
this 28th day of May 2004

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	
System Energy Resources, Inc.	)	Docket No. 52-009
	)	
(Early Site Permit for Grand Gulf ESP Site	)	ASLBP No. 04-823-03-ESP
	)	
	)	

NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney herewith enters an appearance in the captioned matter. In accordance with 10 C.F.R. § 2.314(b), the following information is provided:

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Dated at Washington, District of Columbia
this 28th day of May, 2004

UNITED STATES OF AMERICA
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	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "ANSWER BY SYSTEM ENERGY RESOURCES, INC. TO PROPOSED CONTENTIONS" and "NOTICE OF APPEARANCE FOR MARTIN J. O'NEILL" in the captioned proceeding have been served as shown below by deposit in the United States mail, first class, this 28th day of May 2004. Additional service has also been made this same day by electronic mail as shown below.

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