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**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of	)	Docket Nos. 50-247-LR and
	)	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.	)	
	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	
	)	March 29, 2012

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**ENTERGY'S STATEMENT OF POSITION ON  
CONTENTION CW-EC-3A (ENVIRONMENTAL JUSTICE)**

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William B. Glew, Jr., Esq.  
William C. Dennis, Esq.  
ENTERGY NUCLEAR OPERATIONS, INC.  
440 Hamilton Avenue  
White Plains, NY 10601  
Phone: (914) 272-3202  
Fax: (914) 272-3205  
E-mail: wglew@entergy.com  
E-mail: wdennis@entergy.com

Kathryn M. Sutton, Esq.  
Paul M. Bessette, Esq.  
Jonathan M. Rund, Esq.  
MORGAN, LEWIS & BOCKIUS LLP  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004  
Phone: (202) 739-3000  
Fax: (202) 739-3001  
E-mail: ksutton@morganlewis.com  
E-mail: pbessette@morganlewis.com  
E-mail: jrund@morganlewis.com

COUNSEL FOR ENTERGY NUCLEAR  
OPERATIONS, INC.

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**ENTERGY’S STATEMENT OF POSITION ON CONTENTION CW-EC-3A  
(ENVIRONMENTAL JUSTICE)**

Pursuant to 10 C.F.R. § 2.1207(a)(1) and the Atomic Safety and Licensing Board’s (“Board”) Order Granting NRC Staff’s Unopposed Time Extension Motion,<sup>1</sup> Entergy Nuclear Operations, Inc. (“Entergy”) submits this Statement of Position (“Statement”) on Hudson River Sloop Clearwater, Inc. (“Clearwater”) Contention EC-3A (“CW-EC-3A”). This Statement is supported by the Prefiled Testimony of Entergy Witnesses Donald P. Cleary, Jerry L. Riggs, and Michael J. Slobodien on Contention CW-EC-3A (Environmental Justice) (“Entergy Testimony”), and the exhibits thereto (Entergy Exhibits ENT000014, ENT0015B, ENT000259 through ENT000278, and ENT000280 through ENT000299). For the reasons discussed below, CW-EC-3A lacks merit and should be resolved in favor of Entergy and the U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) Staff.

**I. PRELIMINARY STATEMENT**

CW-EC-3A, an environmental contention, challenges whether Entergy’s Environmental Report (“ER”) and the NRC Staff’s Final Supplemental Environmental Impact Statement

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<sup>1</sup> Licensing Board Order Granting NRC Staff’s Unopposed Time Extension Motion and Directing Filing of Status Updates (Feb. 16, 2012) (unpublished).

("FSEIS")<sup>2</sup> correctly analyze the potential that a severe accident would cause disproportionately significant and adverse impacts on minority and low-income populations in institutions near Indian Point Nuclear Generating Units 2 and 3 (respectively, "IP2" and "IP3," and collectively, "Indian Point" or "IPEC"), as required by the National Environmental Policy Act ("NEPA") and NRC's 10 C.F.R. Part 51 NEPA regulations. More specifically, Clearwater asserts that the Staff's FSEIS allegedly fails to appropriately: (1) identify potentially affected environmental justice populations; (2) analyze Indian Point emergency plans that would allegedly result in disproportionate impacts to minority and low-income populations (including prisoners, nursing-home residents, immobile hospital patients, pre-school children, transportation-dependent residents, and Hispanic residents) in the event of a severe accident; and (3) consider emergency planning improvements as mitigation to allegedly reduce those disproportionate impacts.<sup>3</sup> As Entergy's testimony demonstrates, however, these claims lack basis in law and in evidence.

As a threshold legal matter, NEPA does not require particular environmental outcomes. Rather, it requires only that agencies take a "hard look" at the environmental impacts that will result from an agency's action and provide a statement of the environmental impacts that will result.<sup>4</sup> Moreover, the Commission has identified specific ways in which environmental justice concerns are addressed within the NEPA context, in order to insure that the NEPA analysis remains within reasonable legal bounds. In accordance with NRC's NEPA regulations and in support of its license renewal application ("LRA"), Entergy prepared an ER that, among other

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<sup>2</sup> NUREG-1437, Supp. 38, Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 (Dec. 2010) ("FSEIS") (NYS00133A-J).

<sup>3</sup> Initial Statement of Position for Clearwater's Contention EC-3A Regarding Environmental Justice at 19-32 (Dec. 22, 2011) ("Clearwater Position Statement") (CLE000002).

<sup>4</sup> See *La. Energy Servs., L.P. (Claiborne Enrichment Ctr.)*, CLI-98-3, 47 NRC 77, 87-88 (1998); see also *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97-98 (1983) (NEPA requires agency to take a "hard look" at environmental consequences prior to taking major action).

things, identifies environmental justice populations (*i.e.*, minority and low-income populations) within 50 miles of Indian Point, as well as any “new and significant” information regarding environmental impacts addressed in the Generic Environmental Impact Statement (“GEIS”), and determines that there would be no disproportionately high and adverse impacts on members of the minority and low-income populations. The Staff then prepared an FSEIS that evaluates the ER, including Entergy’s environmental justice evaluation, and also presents its own independent analysis.<sup>5</sup> The FSEIS identifies minority and low-income populations within a 50-mile radius of Indian Point, and also concludes that there would be no disproportionately high and adverse impacts to such populations.<sup>6</sup>

In their testimony, Entergy’s three witnesses, collectively, with extensive experience in environmental justice, emergency planning, and severe accident analysis, explain that contrary to Clearwater’s claims, both Entergy and the NRC Staff properly used census Block Group data to identify and disclose minority and low-income populations within a 50-mile radius of Indian Point. Using census Block Group data is fully consistent with NRC guidance and NEPA’s “hard look” requirement. In turn, because such census data specifically includes information about all populations, the populations inside correctional facilities and other institutions are inherently evaluated. Accordingly, the ER and the FSEIS properly identify and account for environmental justice populations at those facilities and elsewhere.

Entergy’s experts also thoroughly demonstrate that Clearwater’s disproportionate impact claim is contrary to NRC regulations and to the GEIS conclusion that for all plants, the probability-weighted impacts from severe accidents are SMALL. As the analysis shows, and as

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<sup>5</sup> See 10 C.F.R. §§ 51.71(d), 51.95(c)(3).

<sup>6</sup> FSEIS at 4-53 (NYS00133B).

demonstrated in the accompanying testimony, the GEIS conclusion applies to all populations, including minority or low-income and whether populations evacuate or shelter-in-place. Under applicable NEPA law and regulation, SMALL impacts that occur equally across all populations cannot form the basis for asserting that one environmental justice group will suffer *significant and adverse* disproportionate impacts.

Rather than providing a critique within the bounds of NEPA and NRC regulations, the vast majority of Clearwater's testimony is instead a direct challenge to Indian Point emergency and evacuation plans, and thus is outside the scope of CW-EC-3A and this proceeding. Without waiving Entergy's objections to such testimony and the arguments relying upon it,<sup>7</sup> Entergy's experts explain that Indian Point, state, and local emergency plans have been demonstrated, and approved by the Federal Emergency Management Agency ("FEMA"), to provide reasonable assurance that appropriate protective measures would be taken for all members of the public in the event of a severe accident, including environmental justice populations. This finding is not subject to review in this proceeding, although even if it were, the evidence demonstrates that these emergency plans specifically consider special facility residents (*e.g.*, prisons, nursing homes, hospitals, schools) for purposes of accommodating any unique protective action needs. Similarly, these plans also accommodate unique needs for transit-dependent and Spanish-speaking populations.

In summary, Entergy's experts demonstrate that the already small risk posed by severe accidents impacts will not disproportionately impact environmental justice populations. In doing

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<sup>7</sup> See Entergy's Motion in Limine to Exclude Portions of Pre-filed Testimony and Exhibits for Contention CW-EC-3A (Environmental Justice) at 6 (Jan. 30, 2012) ("Entergy Motion in Limine"), *available at* ADAMS Accession No. ML12030A200.

so, Entergy's experts refute Clearwater's evidence point-by-point, further demonstrating that CW-EC-3A and supporting evidentiary submissions lack legal, factual, and technical merit.

## II. PROCEDURAL HISTORY OF CONTENTION CW-EC-3A

### A. Original Contention CW-EC-3

On April 23, 2007, Entergy applied to renew the IP2 and IP3 operating licenses for 20 years beyond their current expiration dates of September 28, 2013, and December 12, 2015, respectively. After the NRC published a Federal Register notice of opportunity for hearing,<sup>8</sup> Clearwater filed a petition to intervene, proposing various contentions.<sup>9</sup>

Of relevance here, CW-EC-3, as initially proposed, raised various broad challenges to the environmental justice analysis in Entergy's ER.<sup>10</sup> As originally proposed, CW-EC-3 alleged that Entergy's ER contains a flawed environmental justice analysis that does not adequately assess the impacts of Indian Point license renewal on minority, low-income, and disabled populations surrounding Indian Point.<sup>11</sup> More specifically, Clearwater claimed that Entergy's environmental justice methodology is flawed because Entergy did not present raw data for the total minority and low-income populations, and because Entergy used U.S. Census Block Group data, rather than lower-level Block data, to identify minority and low-income populations.<sup>12</sup>

Clearwater also originally made the following arguments concerning purported disproportionate impacts: (1) cancer rates in the area surrounding Indian Point exceed the

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<sup>8</sup> Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. DPR-26 and DPR-64 for an Additional 20-Year Period, 72 Fed. Reg. 42,134 (Aug. 1, 2007).

<sup>9</sup> See *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 & 3), LBP-08-13, 68 NRC 43, 188-207 (2008).

<sup>10</sup> See Hudson River Sloop Clearwater Inc's Petition to Intervene and Request for Hearing at 47-53 (Dec. 10, 2007) ("Clearwater Petition") (CLE000043), available at ADAMS Accession No. ML073520042.

<sup>11</sup> *Id.* at 31.

<sup>12</sup> See *id.* at 36-37.

national average, which Clearwater attributed to radionuclide emissions; (2) low-income populations that engage in subsistence fishing in the lower Hudson Valley region would ingest radionuclides and other toxic substances from Indian Point; (3) minority and low-income populations confined to prisons, hospitals, and other nearby institutions would be disproportionately harmed in the event of a “significant accident” at Indian Point due to challenges evacuating these populations; and (4) Native American populations would be disproportionately impacted by the production, use, and storage of Indian Point nuclear fuel.<sup>13</sup>

With respect to its third claim, Clearwater stated that there are at least twenty-six correctional facilities within a 50-mile radius of Indian Point and that the majority of the prisoners within these facilities are minority and indigent.<sup>14</sup> Clearwater claimed that two of these correctional facilities—Sing Sing, which is 9.3 miles from Indian Point and within the 10-mile plume exposure pathway emergency planning zone (“10-mile EPZ”), and the Westchester Department of Corrections Facility, which is approximately 17 miles from Indian Point—would likely shelter-in-place rather than evacuate if there were an accident at Indian Point.<sup>15</sup>

Clearwater also maintained that New York State Contention 29, which challenged Indian Point emergency plans, provided additional support for this contention.<sup>16</sup>

In ruling on the admissibility of CW-EC-3, the Board rejected Clearwater’s claims involving alleged disproportionate impacts that relied on cancer rate and subsistence fishing allegations.<sup>17</sup> Ultimately, the Board admitted the contention only with respect to Clearwater’s

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<sup>13</sup> See *id.* at 41-55.

<sup>14</sup> See *id.* at 48-50.

<sup>15</sup> See *id.* at 50-51.

<sup>16</sup> See *id.* at 48.

<sup>17</sup> See *Indian Point*, LBP-08-13, 68 NRC at 200. The Board did not specifically discuss Clearwater’s claim regarding nuclear fuel cycle impacts on Native American communities, an issue outside the scope of CW-EC-3

claim that the environmental justice evaluation fails to address disparate impacts on minority and low-income populations in institutions near Indian Point as a result of a severe accident at Indian Point.<sup>18</sup> More specifically, in admitting this part of the contention, the Board stated that:

Clearwater identifies Sing Sing, a maximum security correctional facility located less than 10 miles from Indian Point that houses more than 1,750 predominately minority inmates. Clearwater also identifies twenty-five other prisons and jails located within 50 miles of Indian Point. Clearwater then contends that Entergy's ER is deficient because it does not address the impact of a severe accident at Indian Point on these [environmental justice] populations.<sup>19</sup>

The Board further stated that the issue remaining is whether there is "sufficient information from which the Commission may properly consider, and publicly disclose, environmental factors that may cause harm to minority and low-income populations that would be 'disproportionate to that suffered by the general population.'"<sup>20</sup> In this regard, the Board emphasized that CW-EC-3 is an environmental contention brought under NEPA—not a safety contention brought under the Atomic Energy Act challenging Indian Point emergency plans.<sup>21</sup>

Notably, for purposes of understanding the scope of this contention, the Board rejected several other contentions challenging emergency preparedness and evacuation planning (including New York State Contention 29, which Clearwater indicated provided additional support for CW-EC-3), explaining that 10 C.F.R. § 50.47(a)(1)(i) "places consideration of

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pursuant to Commission regulations. *See* 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1 (designating all "Uranium Fuel Cycle and Waste Management" as generic, Category 1 issues).

<sup>18</sup> *Indian Point*, LBP-08-13, 68 NRC at 200-01.

<sup>19</sup> *Id.* at 200 (citations omitted).

<sup>20</sup> *Id.* at 201.

<sup>21</sup> *Id.*

emergency plans outside the scope of this proceeding and is supported by NRC case law.”<sup>22</sup>

Since then, the Commission has confirmed that a NEPA-based contention may not be used to challenge the adequacy of emergency planning in a license renewal proceeding.<sup>23</sup>

**B. Amended Contention CW-EC-3A**

Clearwater subsequently submitted amended Contention CW-EC-3A and requested that the Board recognize that the Contention applies to the NRC Staff’s FSEIS.<sup>24</sup> Clearwater framed CW-EC-3A as a “technical change” to the previously-admitted contention, in that the amended contention claims the FSEIS environmental justice discussion has the same deficiency as the ER discussion; namely, its failure to look at the alleged impact on environmental justice populations resulting from asserted emergency planning defects.<sup>25</sup> Clearwater also sought to expand its original contention to claim that the FSEIS assessment of the no-action alternative impacts “on potentially affected environmental justice populations is inadequate” and also that the FSEIS “assessment of the impact of adding closed cycle cooling on air quality” on potentially affected local environmental justice populations is inadequate.”<sup>26</sup>

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<sup>22</sup> *Id.* at 149 (emphasis added) (rejecting proposed contention NYS-29); *see also id.* at 165-166 (rejecting proposed contention Connecticut EC-2).

<sup>23</sup> *See Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 302 (2010)* (ruling that witness statements on “the issue of emergency planning—the need to provide accurate, ‘real time’ projections of the location and duration of potential public exposures to determine whether, when, and where particular population groups may need to be evacuated” are beyond the scope of a license renewal severe accident mitigation alternative review—a NEPA-based review).

<sup>24</sup> Motion for Leave to Amend and Extend Contention EC-3 Regarding Environmental Justice and Petition to Do So, (Feb. 3, 2011) (“Clearwater Contention CW-EC-3A Motion”), *available at* ADAMS Accession No. ML110410369.

<sup>25</sup> *See id.* at 3, 16, 19.

<sup>26</sup> *Id.* at 16.

The Board subsequently rejected Clearwater's claims involving both the no-action and closed-cycle cooling alternatives.<sup>27</sup> Thus, the Board amended Clearwater's original contention only to allow that the contention now alleges that both the ER and FSEIS allegedly fail to address purported disparate severe accident impacts on environmental justice populations in nearby institutions.<sup>28</sup>

**C. Entergy's Motion in Limine on Clearwater's Testimony and the Board's Ruling**

On December 22, 2011, Clearwater filed its statement of position and the testimony of Dr. Michael Edelstein, Ms. Manna Jo Greene, Dr. Erik A. Larsen, Mr. Aaron Mair, Mr. Stephen Filler, Mr. Anthony Papa, Mr. John Simms, and Ms. Dolores Guardado. That testimony, which largely focuses on the adequacy of emergency and evacuation planning for Indian Point, is summarized in Section IV.A below.

On January 30, 2012, Entergy filed a Motion in Limine seeking to exclude portions of Clearwater's direct testimony,<sup>29</sup> a motion the NRC Staff supported and Clearwater opposed.<sup>30</sup> In particular, Entergy sought to exclude select testimony and certain Clearwater exhibits arguing, among other things, that: (1) the testimony constituted challenges to emergency plans, which are not permitted in license renewal proceedings; (2) testimony on psychological impacts, terrorism, and mistreatment of prisoners is outside the scope of NEPA; (3) testimony on impacts associated with non-institutional and non-environmental justice populations is outside the scope of CW-EC-

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<sup>27</sup> Licensing Board Memorandum and Order (Ruling on Pending Motions for Leave to File New and Amended Contentions) at 59-60 (July 6, 2011) (unpublished) ("Board Amended Contention Order").

<sup>28</sup> *See id.* at 60.

<sup>29</sup> *See* Entergy's Motion in Limine.

<sup>30</sup> NRC Staff's Response in Support of Entergy's Motion in Limine to Exclude Portions of Pre-Filed Testimony and Exhibits for Contention CW-EC-3A (Environmental Justice) (Feb. 9, 2012), *available at* ADAMS Accession No. ML12040A313; Clearwater's Reply in Opposition to Entergy's Motion in Limine (Feb. 17, 2012), *available at* ADAMS Accession No. ML12048B478.

3A; (4) Dr. Edelstein and Ms. Greene each lack the requisite expertise in certain areas their testimony covered; and (5) several witnesses lack the necessary personal knowledge concerning emergency planning or other potentially relevant issues.<sup>31</sup>

On March 3, 2012, the Board denied that Motion, but noted that it would distinguish between testimony criticizing emergency plans and testimony describing how certain environmental justice populations might be adversely harmed by a severe accident in comparison to the general population.<sup>32</sup> The Board also stated that it would discount the weight of any Clearwater evidence that focused on non-environmental justice populations.<sup>33</sup>

While acknowledging the Board Order on its Motion in *Limine*, Entergy respectfully continues to assert that Commission regulations bar any testimony addressing the adequacy of emergency planning and, therefore, such testimony is outside the scope of this proceeding.<sup>34</sup> Nevertheless, recognizing the Board's order, Entergy's experts refute Clearwater's disproportionate impact testimony and, in doing so, describe, as necessary, Indian Point emergency plans. Entergy has its witnesses do so, however, without waiving its argument that Clearwater's witnesses are not properly qualified to offer any testimony on such emergency plans, and its argument that the testimony is an improper attack on the emergency plans, which are not subject to challenge in this proceeding.

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<sup>31</sup> Entergy Motion in *Limine* at 7-24.

<sup>32</sup> Licensing Board Order (Granting in Part and Denying in Part Applicant's Motions *in Limine*) at 35 (Mar. 6, 2012) (unpublished).

<sup>33</sup> *Id.* Additionally, the Board deferred a decision on Clearwater's witnesses' qualifications. *Id.*

<sup>34</sup> *See Indian Point*, LBP-08-13, 68 NRC at 149, 165-166, 201.

### III. APPLICABLE LEGAL AND REGULATORY STANDARDS

#### A. Controlling NEPA Principles

CW-EC-3A arises under NEPA, which requires that federal agencies, such as the NRC, prepare an environmental impact statement (“EIS”) in conjunction with “major Federal actions significantly affecting the quality of the human environment.”<sup>35</sup> NEPA does not mandate substantive results; rather, it imposes procedural restraints on agencies, requiring them to take a “hard look” at a proposed action’s environmental impacts and reasonable alternatives to that action.<sup>36</sup> In this regard, the Commission has emphasized that NRC hearings must focus on whether the “NRC Staff has failed to take a ‘hard look’ at significant environmental questions—i.e., the Staff has unduly ignored or minimized pertinent environmental effects.”<sup>37</sup>

In determining whether the FSEIS is sufficient under NEPA, the Board considers the record as a whole. The record of decision ultimately includes the adjudicatory record and the Board decision.<sup>38</sup> Thus, in NRC licensing proceedings, “the ultimate NEPA judgments regarding a facility can be made on the basis of the entire record before a presiding officer, such that the EIS can be deemed amended pro tanto.”<sup>39</sup> Therefore, the Board may consider the full record before it, including the testimony and exhibits at the hearing, to conclude that “the

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<sup>35</sup> 42 U.S.C. § 4332(2)(C) (2006).

<sup>36</sup> See *Claiborne*, CLI-98-3, 47 NRC at 87-88; see also *Balt. Gas & Elec.*, 462 U.S. at 97-98 (NEPA requires agency to take a “hard look” at environmental consequences prior to taking major action).

<sup>37</sup> *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-03-17, 58 NRC 419, 431 (2003); see also *Exelon Generating Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005) (“There may, of course, be mistakes in the [EIS], but in an NRC adjudication, it is Intervenor’s burden to show their significance and materiality. Our boards do not sit to flyspeck environmental documents or to add details or nuances.”) (internal quotes omitted).

<sup>38</sup> See, e.g., *La. Energy Servs. L.P.* (National Enrichment Facility), CLI-06-15, 63 NRC 687, 707 n. 91 (“Adjudicatory findings on NEPA issues, including our own in this decision, become part of the environmental ‘record of decision’ and in effect supplement the FEIS.”); *Claiborne*, CLI-98-3, 47 NRC at 89 (“In NRC licensing adjudications . . . it is the Licensing Board that compiles the final environmental ‘record of decision’ . . . . The adjudicatory record and Board decision . . . become, in effect, part of the FEIS.”).

<sup>39</sup> *La. Energy Servs. L.P.* (Nat’l Enrichment Facility), LBP-05-13, 61 NRC 385, 404 (2005).

aggregate is sufficient to satisfy the agency’s obligation under NEPA” to take a “hard look” at license renewal environmental impacts and alternatives.<sup>40</sup>

Moreover, in determining whether the agency has satisfied its obligation, both the NRC and the federal courts have emphasized that there are limits to what can be demanded of an agency.<sup>41</sup> Overall, the “hard look” requirement is subject to a “rule of reason.”<sup>42</sup> As a result, NEPA “does not call for certainty or precision, but an estimate of anticipated (not unduly speculative) impacts.”<sup>43</sup> For example, NEPA does not require consideration of a severe accident scenario that is so unlikely that it can be characterized as remote and speculative.<sup>44</sup> Nor must an EIS “be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.”<sup>45</sup> And, because there “will always be more data that could be gathered,” agencies enjoy “discretion to draw the line and move forward with decisionmaking.”<sup>46</sup>

## **B. NRC’s NEPA Implementing Regulations**

The NRC NEPA regulations are set forth in 10 C.F.R. Part 51. In 1996, the Commission amended Part 51 to address the scope of its license renewal environmental review.<sup>47</sup> To make Part 51 more efficient and focused, the NRC prepared the GEIS to evaluate environmental

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<sup>40</sup> See *La. Energy Servs., L.P.* (Nat’l Enrichment Facility), LBP-06-8, 63 NRC 241, 286 (2006).

<sup>41</sup> See, e.g., *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 776 (1983) (citation omitted) (“The scope of the agency’s inquiries must remain manageable if NEPA’s goal of ‘ensur[ing] a fully informed and well considered decision,’ is to be accomplished.”).

<sup>42</sup> *New York Nat. Res. Def. Council v. Kleppe*, 429 U.S. 1307, 1311 (1976); see also *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767-69 (2004) (rule of reason is inherent in NEPA and its implementing regulations).

<sup>43</sup> *La. Energy Servs., L.P.* (Nat’l Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005).

<sup>44</sup> *Vt. Yankee Nuclear Power Corp.* (Vt. Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333, 335 (1990); see also *Vt. Yankee Nuclear Power Corp.* (Vt. Yankee Nuclear Power Station), CLI-90-7, 32 NRC 129, 131 (1990) (holding that “probability is the key to applying NEPA’s rule of reason test” to severe accident contentions).

<sup>45</sup> *Kleppe*, 429 U.S. at 1311 (citing *Nat. Res. Def. Council v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975)).

<sup>46</sup> *Pilgrim*, CLI-10-11 71 NRC at 315.

<sup>47</sup> See Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467 (June 5, 1996) (NYS000127), amended by 61 Fed. Reg. 66,537 (Dec. 18, 1996) (NYS000128).

impacts based on experience gained from the existing U.S. nuclear power plant fleet operations.<sup>48</sup> Based on the GEIS, the NRC divided the license renewal environmental requirements into generic and plant-specific components.<sup>49</sup>

Those issues that could be resolved generically for all plants are designated as “Category 1” issues and are not evaluated further in a license renewal proceeding (absent the Commission waiving or suspending the rule based on new and significant information).<sup>50</sup> The applicant’s ER addresses remaining plant-specific, “Category 2” issues and “new and significant information” about license renewal environmental impacts.<sup>51</sup> The NRC Staff must then supplement the GEIS, preparing a site-specific evaluation that addresses applicable site-specific Category 2 issues and any “new and significant information.”<sup>52</sup>

The NRC codified its generic findings and this classification of issues in Table B-1, Appendix B to Subpart A of 10 C.F.R. Part 51 (“Table B-1”). Table B-1 assigns significance levels for environmental issues based on the following definitions:

SMALL: Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. For the purposes of assessing radiological impacts, the Commission has concluded that those impacts that do not exceed permissible levels in the Commission’s regulations are considered small.

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<sup>48</sup> See *id.* at 28,490; see also NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Final Report, Vols. 1 & 2 (May 1996) (“GEIS”) (NYS00131A-H), available at ADAMS Accession Nos. ML040690705, ML040690738.

<sup>49</sup> See Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,490.

<sup>50</sup> See *id.* at 28,468, 28,470, 28,474; *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 11-12 (2001).

<sup>51</sup> See 10 C.F.R. § 51.53(c); *Turkey Point*, CLI-01-17, 54 NRC at 11-12.

<sup>52</sup> 10 C.F.R. § 51.53(c)(3)(ii), (iv).

MODERATE: Environmental effects are sufficient to alter noticeably, but not to destabilize, any important attributes of the resource.

LARGE: Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.<sup>53</sup>

NRC regulatory guidance defines “new and significant information” as: (1) information that identifies a significant environmental issue that was not considered in the GEIS and, consequently, is not codified in Table B-1; or (2) information that was not considered in the analyses summarized in the GEIS and that leads to an impact finding different from that codified in 10 C.F.R. Part 51.<sup>54</sup>

### **C. NRC’s Policy and Guidance on Environmental Justice**

As noted above, CW-EC-3A concerns environmental justice, which refers to the federal policy established by Executive Order 12898 requesting that each federal agency identify and address, as appropriate, potentially disproportionately high adverse human health or environmental effects of its programs, policies, and activities on minority or low-income populations.<sup>55</sup> In response to Executive Order 12898, the Commission issued a Policy Statement on the treatment of environmental justice matters in NRC licensing actions.<sup>56</sup> The NRC Environmental Justice Policy Statement makes clear neither it nor Executive Order 12898 establishes any new substantive or procedural requirements applicable to NRC regulatory or

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<sup>53</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1.

<sup>54</sup> Regulatory Guide 4.2, Supp. 1, Preparation of Supplemental Environmental Reports for Application to Renew Nuclear Power Plant Operating Licenses, 4.2-S-4 (Sept. 2000) (“RG 4.2S1”) (ENT000136).

<sup>55</sup> See Executive Order 12898 of February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629, 7632 (Feb. 16, 1994) (“Executive Order 12898”).

<sup>56</sup> See Final Policy Statement; Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. at 52,040, 52,046 (Aug. 24, 2004) (“NRC Environmental Justice Policy Statement”) (ENT000260).

licensing activities, and it clarifies the relationship between NEPA and environmental justice under the Commission’s authorities.<sup>57</sup> Of note, the NRC Environmental Justice Policy Statement establishes three key points that are relevant to CW-EC-3A.

First, environmental justice issues are considered only when, and to the extent NEPA requires, because “NEPA is the only available statute under which the NRC can carry out the general goals of [Executive Order] 12898.”<sup>58</sup>

Second, the Commission has emphasized that “NEPA is not the appropriate context in which to assess racial motivation and fairness or equity issues.”<sup>59</sup> In part, this is because “were NEPA construed broadly to require a full examination of every conceivable aspect of federally licensed projects, ‘available resources may be spread so thin that agencies are unable adequately to pursue protection of the physical environment and natural resources.’”<sup>60</sup>

Finally, the Commission’s Environmental Justice Policy Statement emphasizes that the focus of an environmental justice review is “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*.”<sup>61</sup>

Prior to the issuance of the NRC Environmental Justice Policy Statement, the NRC Staff’s Office of Nuclear Reactor Regulation (“NRR”) developed environmental justice guidance (LIC-203) using the Council on Environmental Quality (“CEQ”) environmental justice guidance

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<sup>57</sup> See Executive Order 12898, 59 Fed. Reg. at 7632-33 (ENT000259); NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,046 (ENT000260).

<sup>58</sup> NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,046 n.2 (ENT000260).

<sup>59</sup> *Id.* at 52,045.

<sup>60</sup> *Id.* at 52,045 (*quoting Claiborne*, CLI-98-3, 47 NRC at 102-03 (*quoting Metro. Edison*, 460 U.S. at 776)).

<sup>61</sup> NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,047 (ENT000260) (emphasis added).

as the model.<sup>62</sup> The environmental justice guidance in LIC-203, Rev. 1<sup>63</sup> was then incorporated into the NRC Environmental Justice Policy Statement.<sup>64</sup> In accordance with LIC-203, Rev. 1, and the NRC’s Environmental Justice Policy Statement, environmental justice reviews entail two major steps: (1) identifying minority and low-income populations that the proposed action could potentially impact; and (2) disclosing any disproportionately high and adverse impacts to these particular populations that, due to the population’s unique characteristics, may differ from the impacts to the general population.<sup>65</sup>

Thus step one in the review process focuses on identifying minority populations (*i.e.*, individuals who are members of American Indian or Alaskan Native, Asian or Pacific Islander, Black, or Hispanic population groups) and low-income populations (*i.e.*, individuals exceeding annual statistical poverty thresholds).<sup>66</sup> Implicit in the focus on *populations* is an understanding that the process does not require that NRC identify individual facilities or individuals in specific facilities. Thus, NRC guidance specifically endorses using U.S. Census Block Group data to identify minority or low-income populations. Such Block Groups are large enough to avoid an undue focus on individuals or groups not large enough to constitute meaningful “populations,” but “small enough so as not to dilute a potential minority or low-income population within the larger general population.”<sup>67</sup>

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<sup>62</sup> See NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,041-42.

<sup>63</sup> LIC-203, Rev. 1, Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues (May 24, 2004) (“LIC-203, Rev. 1”) (ENT000261).

<sup>64</sup> See *id.* at 52,041.

<sup>65</sup> See *id.* at 52,047.

<sup>66</sup> LIC-203, Rev. 1, at D-8 (ENT000261).

<sup>67</sup> LIC-203, Rev. 1, at D-8 (ENT000261).

The GEIS does not address environmental justice and so Table B-1 does not list environmental justice as either a Category 1 or Category 2 issue. Rather, Table B-1 indicates that “[t]he need for and the content” of an environmental justice analysis is addressed in application-specific reviews.<sup>68</sup> Neither that requirement in Table B-1 nor Executive Order 12898 nor the Policy Statement, however, precludes the NRC Staff from relying on existing generic environmental analyses in the GEIS to satisfy its NEPA obligations to the degree those analyses can be appropriately brought to bear on the specific application at issue.<sup>69</sup>

**D. NRC’s Regulations Governing Severe Accident Impacts**

As noted above, CW-EC-3A also inherently challenges the GEIS severe accident impact conclusion for environmental justice populations. The NRC defines a severe accident as a beyond design-basis accident “involving multiple failures of equipment or function . . . whose likelihood is generally lower than design-basis accidents but where consequences may be higher.”<sup>70</sup> The GEIS provides a generic “bounding” evaluation of severe accident *impacts* that applies to all U.S. nuclear power plants.<sup>71</sup> Based on this GEIS evaluation, 10 C.F.R. Part 51 concludes that “[t]he probability weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to ground water, and societal and economic impacts from severe accidents are *small for all plants*.”<sup>72</sup> This generic SMALL finding on severe accidents applies to

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<sup>68</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-2.

<sup>69</sup> See Executive Order 12898, 59 Fed. Reg. at 7631 (ENT000259) (indicating that, in carrying out the Executive Order, Federal agencies should “whenever practicable and appropriate . . . eliminate unnecessary duplication of efforts through the use of existing data”); see also 10 C.F.R. Pt. 51, Subpt. A, App. A § 1(b) (“The techniques of tiering and incorporation by reference described respectively in 40 CFR 1502.20 and 1508.28 and 40 CFR 1502.211 of CEQ’s NEPA regulations may be used as appropriate to aid in the presentation of issues, eliminate repetition or reduce the size of an environmental impact statement.”).

<sup>70</sup> GEIS at 5-1 (NYS00131C).

<sup>71</sup> *Pilgrim*, CLI-10-11, slip op. at 37-38.

<sup>72</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1 (Postulated Accidents; Severe accidents) (emphasis added).

all plants and, thus, no plant-specific analysis of severe accident *impacts* is required in this license renewal proceeding.<sup>73</sup>

Notwithstanding the generic SMALL finding on severe accidents, the Commission has required additional plant-specific NEPA analysis of severe accident mitigation alternatives (“SAMAs”) for plants that had not previously considered such alternatives.<sup>74</sup> Specifically, a SAMA analysis identifies potential changes to a nuclear power plant, or its operations, that could reduce the already-low risk of a severe accident for which the benefit of implementing the change may outweigh the cost of implementation. Changes to the nuclear power plant that could reduce the risk of a severe accident include plant modifications or operational changes (*e.g.*, improved procedures and augmented training of control room and plant personnel).<sup>75</sup>

#### **E. NRC’s Emergency Planning Regulations**

As noted previously, license renewal, by regulation, does not involve reviewing emergency planning matters. The NRC specifically considered whether it should address emergency planning matters in license renewal proceedings, and, by rulemaking, generically “determined that the current requirements, including continuing update requirements for emergency planning, provide reasonable assurance that an acceptable level of emergency preparedness exists at any operating reactor at any time in its operating lifetime.”<sup>76</sup> Therefore, emergency planning issues, including particular actions to be taken to protect members of the public in an emergency, are not within the scope of, and are not subject to challenge in, NRC

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<sup>73</sup> See *Pilgrim*, CLI-10-11, slip op. at 37 (“NRC SAMA analyses are not a substitute for, and do not represent, the NRC NEPA analysis of potential impacts of severe accidents.”).

<sup>74</sup> See Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,480-81 (NYS000127).

<sup>75</sup> See *id.* at 28,481.

<sup>76</sup> Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,966-67 (Dec. 13, 1991) (ENT000270).

license renewal proceedings.<sup>77</sup> Nor can this exclusion of emergency planning issues from license renewal proceedings be circumvented simply by recasting emergency planning challenges as environmental contentions.<sup>78</sup>

#### **F. Burden of Proof**

At the hearing stage, an intervenor has the initial “burden of going forward”; *i.e.*, it must provide sufficient evidence to support the claims made in the admitted contention.<sup>79</sup> The mere admission of the contention does not satisfy that burden. Moreover, an intervenor cannot meet its burden by relying on unsupported allegations and speculation.<sup>80</sup> Rather, it must introduce sufficient evidence during the hearing phase to establish a *prima facie* case.<sup>81</sup> If it does so, then the burden shifts to the applicant to provide sufficient evidence to rebut the intervenor’s contention.<sup>82</sup> While the NRC Staff, not the applicant, has the burden of complying with NEPA,<sup>83</sup>

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<sup>77</sup> *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-05-24, 62 NRC 551, 560-61 (2005).

<sup>78</sup> *See Pilgrim*, CLI-10-11, 71 NRC at 302 (ruling that witness statements on “the issue of emergency planning—the need to provide accurate, ‘real time’ projections of the location and duration of potential public exposures to determine whether, when, and where particular population groups may need to be evacuated” are beyond the scope of a license renewal SAMA environmental review).

<sup>79</sup> *AmerGen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 269 (*quoting Consumers Power Co.* (Midland Plant, Units 1 & 2), ALAB-123, 6 AEC 331, 345 (1973)) (“The ultimate burden of proof on the question of whether the permit or license should be issued is . . . upon the applicant. But where . . . one of the other parties contends that, for a specific reason . . . the permit or license should be denied, that party has the *burden of going forward* with evidence to buttress that contention. Once he has introduced sufficient evidence to establish a *prima facie* case, the burden then shifts to the applicant who, as part of his overall burden of proof, must provide a sufficient rebuttal to satisfy the Board that it should reject the contention as a basis for denial of the permit or license.”); *see also* *Vt. Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 554 (1978) (upholding this threshold test for intervenor participation in licensing proceedings); *Phila. Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-262, 1 NRC 163, 191 (1975) (holding that the intervenors had the burden of introducing evidence to demonstrate that the basis for their contention was more than theoretical).

<sup>80</sup> *See Oyster Creek*, CLI-09-7, 69 NRC 268-70; *see also Phila. Elec. Co.* (Limerick Generating station, Units 1 & 2), ALAB-857, 25 NRC 7, 13 (1987) (stating that an intervenor may not merely assert a need for more current information without having raised any questions concerning the accuracy of the applicant’s submitted facts).

<sup>81</sup> *See Oyster Creek*, CLI-9-07, 69 NRC at 268-70.

<sup>82</sup> *See, e.g.*, 10 C.F.R. § 2.325; *La. Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1093 (1983) (*citing Midland*, ALAB-123, 6 AEC at 345).

the applicant also has the burden of proof in licensing proceedings if it becomes a proponent of the challenged portion of the Staff's FSEIS.<sup>84</sup> Ultimately, a preponderance of the evidence must support the applicant's position.<sup>85</sup>

#### IV. ARGUMENT

##### A. Clearwater's Testimony and Position

A witness may qualify as a testifying expert by "knowledge, skill, experience, training, or education," provided that "scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue."<sup>86</sup> The party sponsoring a witness has the burden of demonstrating that the witness is qualified.<sup>87</sup> A non-expert witness must have personal knowledge of the matter on which he or she testifies.<sup>88</sup>

As noted previously, Clearwater's testimony is sponsored by Dr. Edelstein, Ms. Greene, Dr. Larsen, Mr. Mair, Mr. Filler, Mr. Papa, Mr. Simms, and Ms. Guardado. According to Clearwater, collectively, their testimony allegedly shows that the FSEIS fails to appropriately: (1) identify potentially affected environmental justice populations; (2) address emergency plans that allegedly show disproportionate impacts to minority and low-income populations (including prisoners, nursing-home residents, Hispanic residents, transportation-dependent resident, immobile hospital patients, and pre-school children) from severe accidents; and (3) consider

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<sup>83</sup> See, e.g., *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), CLI-83-19, 17 NRC 1041, 1049 (1983).

<sup>84</sup> *La. Energy Servs., L.P.* (Claiborne Enrichment Ctr.), LBP-96-25, 44 NRC 331, 338-39 (1996) (citing *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), ALAB-471, 7 NRC 477, 489 n.8 (1978), *rev'd on other grounds*, CLI-97-15, 46 NRC 294 (1997)).

<sup>85</sup> See *Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-763, 19 NRC 571, 577 (1984).

<sup>86</sup> *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 & 2), CLI-04-21, 60 NRC 21, 27-28 (2004).

<sup>87</sup> See, e.g., *id.* at 27.

<sup>88</sup> See, e.g., *Ga. Inst. of Tech.* (Ga. Tech Research Reactor, Atlanta, Ga.), LBP-96-10, 43 NRC 231 (1996); see also *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), ALAB-950, 33 NRC 492, 501 (1991) (non-expert's submission considered as argument, not evidence).

emergency planning as mitigation that would allegedly reduce those disproportionate impacts.<sup>89</sup> With respect to this last point, Clearwater appears to claim that NRC's consideration of SAMAs somehow obligates it to examine emergency planning improvements as mitigation.<sup>90</sup> As discussed below, this testimony should be accorded little or no weight.

### **1. Dr. Edelstein's Testimony**

Dr. Edelstein, a professor of environmental psychology at Ramapo College of New Jersey, states that he is providing testimony as an expert in "psycho-social impact assessment."<sup>91</sup> The crux of Dr. Edelstein's assessment is found in his report, which he incorporates as part of his testimony, and focuses on the adequacy of emergency planning at the Sing Sing prison, as well as the potential for radiological and "psycho-social" impacts on its inhabitants in the event of a severe accident at Indian Point. Dr. Edelstein also addresses purported lessons learned from the Fukushima accident in Japan, as well as alleged non-nuclear emergency planning and evacuation issues associated with Hurricane Katrina.

As an initial matter, nothing in Dr. Edelstein's resume or testimony indicates that he has the requisite expertise, such as any education or specialized knowledge, to testify on matters pertaining to emergency planning, health physics, nuclear reactor safety, or severe accident phenomena.<sup>92</sup> Despite Dr. Edelstein's lack of experience on such matters, he nevertheless purports to offer expert testimony about the effectiveness of emergency planning protective

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<sup>89</sup> See Initial Statement of Position for Clearwater's Contention EC-3A Regarding Environmental Justice at 24-32 (Dec. 12, 2011) (revised Jan. 4, 2012) ("Clearwater SOP") (CLER00002).

<sup>90</sup> See *id.* at 14-16, 31-32.

<sup>91</sup> Michael Edelstein, *Environmental Justice Impacts From the Proposed Relicensing of the Indian Point Nuclear Power Complex: a Focus on Sing Sing Prison* at 2 (Oct. 5, 2011) ("Edelstein Report") (CLE00012A-C).

<sup>92</sup> Although Dr. Edelstein's resume (*Curriculum Vitae* of Michael Edelstein (Dec. 21, 2011) (CLE000011)) lists experience related to evaluating psychological and sociological harms following Chernobyl accident, Clearwater fails to explain how this experience qualifies Dr. Edelstein as an expert on emergency planning, health physics, or severe accidents.

actions concluding, without adequate support, that “[t]here is no doubt that during severe accident scenarios Sing Sing prisoners would be affected more severely than the general population.”<sup>93</sup> Because Clearwater has not demonstrated that Dr. Edelstein is qualified to offer an expert opinion on these issues, his testimony is not sound evidence.

Furthermore, extensive portions of Dr. Edelstein’s testimony and report challenge the adequacy of existing Indian Point, including state and county, emergency plans. Specifically, Dr. Edelstein first alleges problems associated with evacuating prisoners from, or sheltering-in-place at, Sing Sing in accordance with existing emergency plans.<sup>94</sup> He then states that the Board should consider emergency planning changes and “improvements” involving both Indian Point and Sing Sing.<sup>95</sup> Despite Dr. Edelstein’s characterization of these proposed emergency planning “improvements” as “mitigation” measures, they are, in fact, challenges to current emergency plans. Thus, because Dr. Edelstein’s testimony focuses largely on the adequacy of existing emergency plans for Indian Point and proposed changes to those plans, it is beyond the scope of this contention and this proceeding.

For all these reasons (*i.e.*, both Dr. Edelstein’s lack of expertise and the substantive scope of his testimony), the Board should accord little or no weight to Dr. Edelstein’s testimony on this contention.

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<sup>93</sup> Testimony of Dr. Michael Edelstein in Support of Hudson River Sloop Clearwater, Inc.’s Contention Regarding Environmental Justice at 2 (Nov. 6, 2011) (“Edelstein Testimony”) (CLE000003).

<sup>94</sup> *See, e.g.*, Edelstein Testimony at 3 (CLE000003) (asserting that prison evacuations are “far more complex” than evacuating the general population and “carries far more risk of harm,” and that sheltering-in-place “impacts are likely to be higher due to inability to seal the building”).

<sup>95</sup> *See, e.g., id.* at 4 (outlining “mitigation measures,” including, among other things, evacuation planning, performing tests and drill, and improving communications); *see also* Edelstein Report at 21-38 (CLE00012B); Edelstein Report at 39-44 (CLE00012C). Dr. Edelstein’s testimony similarly challenges the Rockland County Jail emergency plans. *See* Edelstein Testimony at 5 (CLE000003)..

## 2. Ms. Greene's Testimony

Ms. Greene, Clearwater's Environmental Director, testifies in her professional capacity about "research" Clearwater conducted to purportedly identify environmental justice populations within various facilities near Indian Point, and assess those facilities' level of emergency preparedness and ability to evacuate.<sup>96</sup>

Clearwater does not demonstrate that Ms. Greene has expertise in designing, conducting, or extrapolating data from interviews. Nor has Clearwater presented any evidence suggesting Ms. Greene or any of her co-interviewers has the expertise necessary to interpret the interview results and develop an opinion on whether there is, in fact, a potential for a disparate impact.

In addition, Ms. Greene's testimony strays well beyond the scope of this contention. Rather than focus on institutional environmental justice populations, she instead focuses on non-institutional, transportation-dependent populations;<sup>97</sup> non-residential day care centers and head start programs;<sup>98</sup> nursing homes and hospitals;<sup>99</sup> non-institutional affordable housing communities;<sup>100</sup> emergency services providers and other facilities.<sup>101</sup> Because this testimony focuses almost exclusively on the adequacy of existing emergency plans for Indian Point, and because she does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident, it is beyond the scope of this contention and this proceeding.

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<sup>96</sup> Initial Prefiled Written Testimony of Manna Jo Greene Regarding Clearwater's Environmental Justice Contention EC-3A at 3-4 (Dec. 22, 2011) ("Greene Testimony") (CLE000010).

<sup>97</sup> *Id.* at 4-6.

<sup>98</sup> *Id.* at 6-13.

<sup>99</sup> *Id.* at 13-22.

<sup>100</sup> *Id.* at 24-26.

<sup>101</sup> *Id.* at 26-27.

For these reasons, the Board should accord Ms. Greene’s testimony little weight or no weight.

### **3. Dr. Larsen’s Testimony**

Dr. Larsen, Associate Medical Director at White Plains Hospital Emergency Department, testifies in his professional capacity as a physician.<sup>102</sup> Dr. Larsen’s testimony does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident. In fact, Dr. Larsen’s testimony discusses a single, undated experience treating a worker from Indian Point and then focuses on local emergency medical response capabilities. The only discussion of potential environmental justice populations in his testimony relates to potential disparities the uninsured may have in obtaining follow-up medical care.<sup>103</sup> But Dr. Larsen fails to demonstrate that his concern for the uninsured is connected to the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident. Because Dr. Larsen’s testimony focuses largely on the adequacy of existing emergency plans for Indian Point, and does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident, it is beyond the scope of this contention and this proceeding. Therefore, the Board should accord it little or no weight.

### **4. Mr. Mair’s Testimony**

Mr. Aaron Mair, a radio talk show host, staff member of the New York State Department of Health, and “former resident” of an environmental justice community near Indian Point, testifies in his individual capacity about transport-dependent populations and factors particular to

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<sup>102</sup> Initial Prefiled Written Testimony of Erik A. Larsen, MD, FACEP Regarding Clearwater’s Environmental Justice Contention EC-3A at 1 (Dec. 20, 2011) (“Larsen Testimony”) (CLE000005).

<sup>103</sup> *Id.* at 3.

Peekskill, NY.<sup>104</sup> Mr. Mair provides general background information on the environmental justice movement and focuses on the City of Peekskill, including its demographics, purported environmental impacts from landfills and other industrial facilities, and evacuation challenges related to automobile ownership rates and local terrain and roads. Because Mr. Mair’s testimony focuses largely on the adequacy of existing emergency plans for Indian Point, and does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident, it is beyond the scope of this contention and this proceeding. Therefore, the Board should accord it little or no weight.

### **5. Mr. Filler’s Testimony**

Mr. Stephen Filler testifies in his individual capacity as a Clearwater Board Member regarding Indian Point emergency planning.<sup>105</sup> He voices his concerns regarding planning for food and water supplies at certain medical facilities that might shelter-in-place rather than evacuate during an accident; challenges in evacuating transit-dependent individuals; and maintenance of an “up-to-date list of the location of non-institutionalized mobility-impaired individuals.”<sup>106</sup> Because Mr. Filler’s testimony focuses largely on the adequacy of existing emergency plans for Indian Point, and does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident, it is beyond the scope of this contention and this proceeding. Therefore, the Board should accord it little or no weight.

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<sup>104</sup> SOP at 19 (CLE000002); Initial Prefiled Written Testimony of Aaron Mair Regarding Clearwater’s Environmental Justice Contention at 6-11 (Dec. 20, 2011) (“Mair Testimony”) (CLE000007).

<sup>105</sup> Initial Prefiled Written Testimony of Stephen Filler Regarding Clearwater’s Environmental Justice Contention EC-3A at 2-3 (Dec. 20, 2011) (“Filler Testimony”) (CLE000009).

<sup>106</sup> *Id.* at 2-3.

## 6. Mr. Papa's Testimony

Mr. Anthony Papa, the manager of media relations at the Drug Policy Alliance and a former inmate at Sing Sing, testifies in his individual capacity about his prior incarceration at Sing Sing, U.S. drug policy, his work for the Drug Policy Alliance, and his personal views concerning emergency planning effectiveness at Sing Sing. There is no evidence that Mr. Papa has any relevant personal experience or knowledge about the details of Sing Sing's emergency plans. Furthermore, because this testimony focuses largely on the adequacy of existing emergency plans for Indian Point, it is beyond the scope of this contention and this proceeding. Therefore, the Board should accord little weight to Mr. Papa's views about the effectiveness of those plans and the potential for disparate severe accident impacts.

## 7. Mr. Simms' Testimony

Mr. Simms, a retiree living in Bethel Springvale Inn, testifies in his individual capacity about emergency planning and preparedness at Bethel Springvale Inn.<sup>107</sup> In doing so, he states that "the average person here is *at least* middle class."<sup>108</sup> Mr. Simms provides no information demonstrating that the residents of Bethel Springvale Inn constitute a minority or low-income population.<sup>109</sup> Because Mr. Simms' testimony does not address environmental justice populations, it is beyond the scope of CW-EC-3A. Therefore, the Board should accord it little or no weight.

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<sup>107</sup> Testimony of John Simms in Support of Hudson River Sloop Clearwater, Inc.'s Contention Regarding Environmental Justice at 1-4 (Nov. 22, 2011) ("Simms Testimony") (CLE000006).

<sup>108</sup> *Id.* at 2 (emphasis added).

<sup>109</sup> *Id.* at A9.

## **8. Mr. Guardado's Testimony**

Ms. Guardado, a resident of Peekskill and member of its Hispanic community, testifies in her individual capacity about emergency planning for Peekskill's Hispanic community.<sup>110</sup> She asserts that Spanish translations of emergency planning information are not distributed appropriately, and that the "language barrier" will result in evacuation and potassium iodide distribution difficulties.<sup>111</sup> There is no evidence that Ms. Guardado has any relevant expertise or knowledge in emergency management in general, or in radiological emergency management specifically. Because Ms. Guardado's testimony focuses largely on the adequacy of existing emergency plans for Indian Point, and does not address the potential for disparate impacts on institutional environmental justice populations in the event of a severe accident, it is beyond the scope of this contention and this proceeding. Therefore, the Board should accord it little or no weight.

### **B. Entergy's Witnesses**

This Statement of Position on CW-EC-3A summarizes testimony from Entergy's witnesses listed below. The testimony, evidence, and opinions these witnesses present are based on their technical and regulatory expertise, professional experience, and personal knowledge of the issues raised in CW-EC-3A. Collectively, these witnesses demonstrate that CW-EC-3A lacks merit.

#### **1. Donald P. Cleary**

Mr. Cleary is an Environmental Safety Consultant with Talisman International, LLC. As summarized in his *curriculum vitae* (ENT000133), he holds a Bachelor of Arts degree in

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<sup>110</sup> Initial Prefiled Written Testimony of Dolores Guardado Regarding Clearwater's Environmental Justice Contention EC-3A at 1 (Dec. 21, 2011) ("Guardado Testimony") (CLE000008).

<sup>111</sup> *Id.* at 4-6.

Economics from the University of Massachusetts, Amherst, and a Master of Arts degree in Economics from the University of Florida. Mr. Cleary has more than 38 years of professional experience in the nuclear industry, including more than 25 years as a member of the NRC Staff.

Mr. Cleary has extensive experience developing and applying NRC's NEPA regulations and guidance, and, in particular, evaluating environmental justice and severe accident impacts. Based on his experience, Mr. Cleary is familiar with the GEIS and Indian Point FSEIS assessments of such issues, as well as NRC's guidance on conducting environmental justice reviews for license renewals.

## **2. Jerry L. Riggs**

Mr. Riggs is a Geographic Information System ("GIS") Specialist for Enercon Services, Inc. As indicated in his *curriculum vitae* (ENT000008), he holds a Master of Arts degree in Geography from the University of Oklahoma with an emphasis in Digital Geography including GIS and Remote Sensing, and also has a Bachelor of Science degree in Biochemistry from the University of Oklahoma. Mr. Riggs has over six years of experience as a GIS Specialist at Enercon. In that capacity, he has assisted in developing combined license applications, license renewal applications, and has experience related to research and development of GIS operating procedures, demographic analysis, environmental justice analysis, socioeconomic impact analysis, mapping and spatial analysis, Global Positioning System data mapping, and project coordination. As part of those efforts, Mr. Riggs has conducted extensive literature reviews on various socioeconomic subjects, including environmental justice, and has performed environmental justice analyses for a number of NRC license applications.

Mr. Riggs was directly involved in preparing the Indian Point ER, including developing demographic information needed to identify minority and low-income populations near Indian Point. Based on his experience, Mr. Riggs is familiar with NRC's guidance on conducting

environmental justice reviews in nuclear power plant license renewals and with U.S. Census Bureau data and related literature.

### **3. Michael J. Slobodien**

Mr. Slobodien is Entergy's Director of Emergency Planning for fleet operations, including for Indian Point. As summarized in his *curriculum vitae* (ENT000262), he holds a Bachelor of Science degree in Chemistry from Carnegie-Mellon University and a Master of Science degree in Radiation Health from the Graduate School of Public Health of the University of Pittsburgh. Mr. Slobodien has more than 40 years of professional experience in occupational and public radiation safety and health.

As Entergy's Director of Emergency Planning, Mr. Slobodien directs and manages onsite and offsite emergency planning for Entergy's nuclear power reactor fleet. In this position, he is responsible for emergency planning program design and content, facilities, infrastructure, equipment, training, drills, and exercises. His position also entails interfacing with numerous federal agencies including FEMA, NRC, U.S. Environmental Protection Agency ("EPA"), U.S. Department of Homeland Security ("DHS"); and supporting offsite response agencies at the local and state level for the states of New York, Massachusetts, Vermont, New Hampshire, Michigan, Arkansas, Louisiana, and Mississippi. Based on this experience, Mr. Slobodien has direct knowledge of Indian Point emergency plans, as well as state and local emergency response plans, and applicable federal regulations and guidance pertaining to protecting the public in the event of an Indian Point radiological emergency.

#### **C. Entergy's Statement of Position**

In their testimony, Entergy's witnesses demonstrate that the NRC Staff FSEIS properly identifies environmental justice populations and concludes that such populations, including those in institutions near Indian Point, would not suffer disproportionately significant and adverse

impacts in the event of a severe accident at Indian Point. The witnesses first summarize Entergy's and NRC Staff's separate demographic evaluation of environmental justice populations. Next, Entergy's witnesses establish that, both as a matter of law and fact, severe accident risks are SMALL for all populations, including environmental justice populations. Finally, Entergy's witnesses address federally-approved emergency plans and related regulations that provide reasonable assurance of adequate protection for all members of the public, including environmental justice populations. In doing so, Entergy's witnesses address and refute Clearwater's evidence and demonstrate that Contention CW-EC-3A and supporting evidentiary submissions lack legal, factual, and technical merit. Key aspects of their detailed testimony are summarized below.

**1. The FSEIS Identification of Environmental Justice Populations Complies Fully with Applicable NRC Guidance**

In Section V of Entergy's testimony, Mr. Cleary and Mr. Riggs explain that the FSEIS properly identifies environmental justice populations within the 50-mile potential environmental impact area surrounding Indian Point.<sup>112</sup> They provide background on NRC's NEPA guidance for identifying environmental justice populations, explaining that the Commission's Policy Statement endorses NRC Staff guidance in LIC-203, Rev. 1, which focuses on identifying minority populations and low-income populations.<sup>113</sup>

Clearwater is incorrect in asserting that "the NRC Staff has failed to properly identify the [environmental justice] populations on the census block level."<sup>114</sup> Mr. Cleary and Mr. Riggs demonstrate that in accordance with established NRC guidance, the NRC Staff's FSEIS (and

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<sup>112</sup> Entergy Testimony at A.42.

<sup>113</sup> See *id.* A28-33; See also LIC-203, Rev. 1, at D-8 (ENT000261); NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,041 (ENT000260).

<sup>114</sup> Clearwater SOP at 20.

Entergy's ER) evaluation relies on the then-most current (2000) U.S. Census Block Group data.<sup>115</sup> They also demonstrate that NRC guidance endorsing the use of census *Block Groups* rather than census *Blocks* is well-founded because the U.S. Census Bureau does not release income data at the Block-level due to privacy concerns.<sup>116</sup> Because environmental justice reviews involve examining both minority and low-income populations, performing a complete environmental justice evaluation from published census data would not be possible using only census *Block* data.<sup>117</sup> Therefore, Clearwater's argument demanding reliance on census Block data is without merit.

As described above, several of Clearwater's witnesses focus on individuals and individual facilities (*e.g.*, correctional institutions; non-institutional, transportation-dependent individuals; non-residential day care centers and head start programs; nursing homes, hospitals; and emergency services providers) rather than populations (*e.g.*, Block Groups) that meet environmental justice criteria.<sup>118</sup> Entergy's witnesses demonstrate, however, that the U.S. Census Bureau accounts for all people, including people living in institutions.<sup>119</sup> In response to public comments Clearwater submitted on the DSEIS, the NRC Staff emphasized in the FSEIS that its environmental justice assessment, by relying on census data, inherently includes *all* minority and low-income people, regardless of disability or institutional status.<sup>120</sup> Thus, Entergy's witnesses establish that there is no requirement in NRC regulations or guidance, or

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<sup>115</sup> See Greene Testimony at A.5, A.54 (CLE000010); Partial Inventory of Potential EJ Institutions Within 50 miles of Indian Point (Dec. 12, 2011) (CLE000032).

<sup>116</sup> Entergy Testimony at A.30.

<sup>117</sup> *Id.* at A30.

<sup>118</sup> See Clearwater's list of alleged environmental justice facilities in the vicinity of Indian Point (CLE000032); Greene Testimony at 4-6, 13-22 (CLE000010).

<sup>119</sup> Entergy Testimony at A.48.

<sup>120</sup> *Id.* at A.44.

NEPA for that matter, to provide a facility-by-facility, versus population-based, environmental justice analysis of the type that Clearwater seeks.<sup>121</sup>

**2. The FSEIS Reasonably and Appropriately Adopts the GEIS Finding that Severe Accident Risks Are SMALL for All Populations, Including Environmental Justice Populations**

In Section VI of Entergy’s testimony, Mr. Slobodien and Mr. Cleary demonstrate that the FSEIS appropriately addresses the potential for disproportionately high and adverse impacts to environmental justice populations by applying the GEIS determination that probability-weighted impacts associated with severe accidents are SMALL for all plants.<sup>122</sup>

Mr. Slobodien and Mr. Cleary provide background on the GEIS severe accident evaluation, demonstrating that the GEIS generically assesses severe accident impacts using site-specific information to conservatively predict the environmental impacts of severe accidents during the license renewal period.<sup>123</sup> Based on that GEIS assessment, the Commission codified in its regulations the generic determination that the “probability weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to ground water, and societal and economic impacts from severe accidents are *small for all plants*.”<sup>124</sup>

The Commission recently emphasized this aspect of the GEIS and Part 51 in the *Pilgrim* license renewal proceeding stating that, “[b]ecause the GEIS provides a severe accident impacts analysis that envelopes the potential impacts at all existing plants, the environmental impacts of severe accidents during the license renewal term already have been addressed generically in

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<sup>121</sup> Entergy Testimony at A.92.

<sup>122</sup> *See id.* at A55-57.

<sup>123</sup> *See id.* at A52.

<sup>124</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1 (emphasis added).

bounding fashion.”<sup>125</sup> Further, nothing precludes the NRC Staff from relying on existing generic environmental analyses in the GEIS to satisfy its obligations under NEPA.<sup>126</sup> And because the GEIS SMALL finding applies to all plants, without exception, it applies to all populations. Thus, there is no basis for asserting that environmental justice populations are excluded from this generic and binding Commission finding of SMALL severe accident impacts.

For their part, none of Clearwater’s witnesses even discuss the binding GEIS evaluation of severe accident risk.

### **3. Indian Point, State, and Local Emergency Plans Provide Reasonable Assurance of Adequate Protection of All Members of the Public, Including Environmental Justice Populations**

The vast majority of Clearwater’s testimony challenges the adequacy of Indian Point emergency and evacuation plans, and thus is outside the scope of CW-EC-3A and this proceeding. As Entergy asserted in its Motion for Limine, it is impermissible to use a license renewal NEPA contention to challenge the adequacy of emergency planning.<sup>127</sup> Nonetheless, in Section VII of the testimony, Entergy’s experts explain that Indian Point, state, and local emergency plans have been demonstrated, and approved by FEMA, to provide reasonable assurance that appropriate protective measures would be taken for all members of the public in the event of a severe accident, including individuals in institutions such as prisons. Specifically, Indian Point, New York State, and local emergency plans together provide reasonable assurance

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<sup>125</sup> *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 316 (2010).

<sup>126</sup> See Executive Order 12898, 59 Fed. Reg. at 7631 (ENT000259) (indicating that, in carrying out the Executive Order, Federal agencies should “whenever practicable and appropriate . . . eliminate unnecessary duplication of efforts through the use of existing data”); see also 10 C.F.R. Pt. 51, Subpt. A, App. A § 1(b) (“The techniques of tiering and incorporation by reference described respectively in 40 CFR 1502.20 and 1508.28 and 40 CFR 1502.211 of CEQ’s NEPA regulations may be used as appropriate to aid in the presentation of issues, eliminate repetition or reduce the size of an environmental impact statement.”).

<sup>127</sup> Entergy’s Motion in Limine at 6.

that *all* populations would be accounted for in the event of a radiological emergency, and thus, no population will be disparately impacted.<sup>128</sup>

**a. Regulatory Framework for Emergency Planning**

In Section VII of the testimony, Mr. Slobodien explains that NRC regulations require that nuclear power plant licensees maintain emergency preparedness plans to be implemented in the event of an accident.<sup>129</sup> State and local governments are also responsible for developing, maintaining, and implementing emergency plans that adequately protect the public health and safety by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency.<sup>130</sup> FEMA is the lead federal agency responsible for making findings and determinations with regard to off-site state and local governmental radiological emergency planning.<sup>131</sup>

To ensure that emergency preparedness plans are adequate to protect the health and safety of the public, FEMA and the NRC evaluate them biennially in comprehensive emergency preparedness exercises<sup>132</sup> to ensure the plans continues to provide adequate protection.<sup>133</sup> This ongoing regulatory framework establishes reasonable assurance that adequate protective measures can and will be taken for all members of the public in the event of a severe accident currently and during the period of extended operation.

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<sup>128</sup> Entergy Testimony at A.58.

<sup>129</sup> See 10 C.F.R. §§ 50.47, 50.54(q), (s)-(u); *id.* Pt. 50, App. E.

<sup>130</sup> See 44 C.F.R. § 350.5(b).

<sup>131</sup> See 10 C.F.R. § 50.47(a)(2).

<sup>132</sup> See *id.* § 50.47(a)(2); *id.* Pt. 50, App. E § IV.F.2.

<sup>133</sup> See Nuclear Power Plant License Renewal, 56 Fed. Reg. at 64,966 (ENT000270).

**b. Indian Point, State, and Local Emergency Plans**

In accordance with these regulations, Indian Point emergency plans, in conjunction with state and local emergency response plans and organizations, establish protective actions that can be taken to evacuate or shelter all members of the public in the projected path of a radioactive plume.<sup>134</sup> As stated in the most recent FEMA Indian Point radiological exercise report: “State and local preparedness is adequate to protect the health and safety of the public living in the vicinity of the Indian Point Energy Center and . . . there is reasonable assurance that appropriate measures can be taken offsite in the event of a radiological emergency.”<sup>135</sup>

More specifically, as Mr. Slobodien discusses in Section VII of the testimony, in the unlikely event of a severe accident at Indian Point, Entergy would provide the initial and ongoing protective action recommendations to New York State and local government agencies on how to protect the population.<sup>136</sup> Actual implementation of protective actions is generally done at the county level, with the New York State Department of Corrections, for public safety and policy reasons, making decisions on prisoners in state facilities.<sup>137</sup>

State and county emergency plans establish that appropriate actions can and will be taken to protect all members of the public within the 10-mile EPZ in the unlikely event of a radiological emergency (including individuals in prisons and other institutions) through evacuation or sheltering.<sup>138</sup> In the unlikely event that protective actions beyond the 10-mile EPZ are needed, state and local governments could readily develop and implement, as necessary,

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<sup>134</sup> Entergy Testimony at A62.

<sup>135</sup> Letter from L. Canton, FEMA, to D. Tailleart, NRC (Dec. 5, 2011) (ENT000273) (transmitting the Final Exercise Report for the Indian Point Energy Center Radiological Emergency Preparedness Plume Pathway Exercise Conducted on September 14, 2010 (Nov. 30, 2011) (“FEMA Final Exercise Report”).

<sup>136</sup> Entergy Testimony at A63.

<sup>137</sup> *See id.* at A64.

<sup>138</sup> *See id.* at A82.

protective actions that protect all members of the public, including individuals in prisons and other institutions.<sup>139</sup>

Pursuant to New York State law, local emergency plans must account for special populations, “with particular attention to the needs of the poor, the elderly, individuals with disabilities and other groups which may be especially affected.”<sup>140</sup> As Mr. Slobodien explains, these plans thus give specific consideration to special facility residents (*e.g.*, prisons, nursing homes, hospitals, schools) for purposes of accommodating any unique protective action needs.<sup>141</sup> Similarly, these plans also accommodate unique needs for transit-dependent and Spanish-speaking populations.<sup>142</sup> Therefore, an accident at Indian Point would not result in any significant and disproportionate adverse impacts on minority and low-income populations.

Several Clearwater witnesses claim that environmental justice populations (and apparently any other members of the public) that would shelter-in-place during a severe accident will inherently suffer a disparate impact.<sup>143</sup> No support, however, is provided for their assertion that shelter-in-place is somehow an inferior protective action in the event of a severe accident.

In contrast, Mr. Slobodien demonstrates in Section VII and VIII of Entergy’s testimony that shelter-in-place is a federally-approved protective action that can protect the public from exposure to radiation that could be released from a nuclear power reactor in a severe accident.<sup>144</sup>

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<sup>139</sup> *See id.* at A63.

<sup>140</sup> New York State Executive Law 2-B, § 23 (7)(b)(12) (ENT000283).

<sup>141</sup> *See* Entergy Testimony at A72-79, 81.

<sup>142</sup> *See id.* at A70-72, 80.

<sup>143</sup> *See, e.g.*, Edelstein Testimony at 2 (CLE000003).

<sup>144</sup> Entergy Testimony at A67, 75-76.

Additionally, if necessary, the evacuation protective action is available to the state and local agencies responsible for making such decisions.<sup>145</sup>

Mr. Slobodien further demonstrates that Clearwater's reference to alleged problems with prisoner evacuations in Louisiana during Hurricane Katrina does not support its argument that an accident at Indian Point would result in disproportionately high and adverse human health and environmental effects to environmental justice populations.<sup>146</sup> To the contrary, an NRC sponsored study assessing Hurricanes Katrina (and other large scale evacuations), found that emergency planning for nuclear power plants substantially anticipates and already addresses the lessons learned in the large scale evacuations studied (including issues identified as part of the Hurricane Katrina evacuations).<sup>147</sup> Nothing in the NRC report even remotely suggests that sheltering, rather than evacuating, results in disproportionately high and adverse human health and environmental effects to prisoners or to institutionalized environmental justice populations in the event of a severe accident.<sup>148</sup> Therefore, Entergy's witnesses establish that Indian Point, New York State, and county emergency plans provide reasonable assurance of adequate protection to all members of the public, including environmental justice populations.

#### **4. Clearwater's Argument That Emergency Planning Improvements Are Needed as "Mitigation" Is Flawed**

NEPA requires only that possible mitigation measures "be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated."<sup>149</sup> And, as discussed

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<sup>145</sup> See *id.* at A69.

<sup>146</sup> Entergy Testimony at A87.

<sup>147</sup> See NUREG/CR-6981, Assessment of Emergency Response Planning and Implementation for Large Scale Evacuations at 65 (Oct. 2008) ("NUREG/CR-6981") (ENT000298).

<sup>148</sup> Entergy Testimony at A87.

<sup>149</sup> *City of Carmel-by-the-Sea v. U.S. DOT*, 123 F.3d 1142, 1154 (9th Cir. 1997); see also *Hydro Res., Inc.* (P.O. Box 777, Crownpoint, NM 87313), CLI-06-29, 64 NRC 417, 426 (2006) ("The purpose of addressing possible

throughout this Statement, Entergy’s witnesses demonstrate that the probability-weighted impacts associated with severe accidents are SMALL. Accordingly, there was no need for the FSEIS to consider emergency planning “improvements” as additional or alternative mitigation measures for severe accidents, as Clearwater suggests. As the D.C. Circuit has held, an agency may decline to discuss mitigation measures when it believes the environmental impact of the action will be minor.<sup>150</sup> Thus, in this case, NEPA requires no further consideration of mitigation for impacts that the Commission has already found to be SMALL.

In any event, the FSEIS already gives extensive consideration to severe accident mitigation in the SAMA evaluation and Clearwater has not challenged that evaluation. NEPA requires a reasonably complete discussion of possible mitigation measures,<sup>151</sup> but gives federal agencies discretion as to how to meet this mandate.<sup>152</sup> In exercising that discretion, the Commission has limited the scope of severe accident mitigation analysis under NEPA to focus on SAMAs—*i.e.*, plant modifications or operational changes that could reduce the already-low risk of a severe accident.<sup>153</sup> The logic for not expanding the SAMA analysis to include emergency planning changes is clear—NRC regulations place “consideration of emergency plans outside the scope of this proceeding” because existing emergency plans already provide reasonable assurance that appropriate protective measures would be taken for all members of the

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mitigation measures in an FEIS is to ensure that the agency has taken a ‘hard look’ at the potential environmental impacts of a proposed action. An EIS therefore must address mitigation measures ‘in sufficient detail to ensure that environmental consequences have been fairly evaluated.’) (citations omitted).

<sup>150</sup> See *Transmission Access Policy Study Grp. v. FERC*, 225 F.3d 667, 737 (D.C. Cir. 2000) (upholding agency’s decision to “decline to adopt mitigation measures to address a problem that it believed might not even develop”).

<sup>151</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

<sup>152</sup> *Sierra Club v. U.S. Dep’t of Transp.*, 753 F.2d 120, 128 (D.C. Cir. 1985) (citing *Ethyl Corp. v. EPA*, 541 F.2d 1, 12 & n. 16 (D.C. Cir. 1976)).

<sup>153</sup> See Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,481 (NYS000127).

public in the event of a severe accident.<sup>154</sup> Accordingly, the FSEIS already considers severe accident mitigation to the extent required by NRC regulations and NEPA.

## V. CONCLUSION

For the foregoing reasons, the FSEIS takes the required “hard look” at the potential for disproportionately significant and adverse severe accident impacts on environmental justice populations near Indian Point, including those in institutions. Entergy’s experts demonstrate that the FSEIS environmental justice analysis appropriately adopts the Commission’s generic determination that the probability-weighted impacts associated with severe accidents are SMALL for all plants and all populations. Moreover, Clearwater fails to substantiate their claim that the FSEIS ignores or minimizes such impacts on environmental justice populations. Accordingly, Entergy respectfully requests that the Board resolve Contention CW-EC-3A in favor of Entergy and the NRC Staff.

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<sup>154</sup> *Indian Point*, LBP-08-13, 68 NRC at 149.

Respectfully submitted,

*Signed (electronically) by Jonathan M. Rund*

Kathryn M. Sutton, Esq.  
Paul M. Bessette, Esq.  
Jonathan M. Rund, Esq.  
MORGAN, LEWIS & BOCKIUS LLP  
1111 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004  
Phone: (202) 739-3000  
Fax: (202) 739-3001  
E-mail: ksutton@morganlewis.com  
E-mail: pbessette@morganlewis.com  
E-mail: jrund@morganlewis.com

William B. Glew, Jr., Esq.  
William C. Dennis, Esq.  
ENTERGY NUCLEAR OPERATIONS, INC.  
440 Hamilton Avenue  
White Plains, NY 10601  
Phone: (914) 272-3202  
Fax: (914) 272-3205  
E-mail: wglew@entergy.com  
E-mail: wdennis@entergy.com

*Counsel for Entergy Nuclear Operations, Inc.*

Dated in Washington, D.C.  
this 29th day of March 2012

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of	)	Docket Nos.	50-247-LR and
	)		50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.	)		
	)		
(Indian Point Nuclear Generating Units 2 and 3)	)		
	)	March 29, 2012	

**CERTIFICATE OF SERVICE**

I certify that, on March 29, 2012, copies of Entergy's Statement of Position, Testimony, and associated exhibits on Contention CW-EC-3A were served electronically with the Electronic Information Exchange on the following recipients:

Administrative Judge  
Lawrence G. McDade, Chair  
Atomic Safety and Licensing Board Panel  
Mail Stop: T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
(E-mail: Lawrence.McDade@nrc.gov)

Administrative Judge  
Dr. Kaye D. Lathrop  
Atomic Safety and Licensing Board Panel  
190 Cedar Lane E.  
Ridgway, CO 81432  
(E-mail: Kaye.Lathrop@nrc.gov)

Administrative Judge  
Dr. Richard E. Wardwell  
Atomic Safety and Licensing Board Panel  
Mail Stop: T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
(E-mail: Richard.Wardwell@nrc.gov)

Office of the Secretary  
Attn: Rulemaking and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
(E-mail: hearingdocket@nrc.gov)

Office of Commission Appellate Adjudication  
U.S. Nuclear Regulatory Commission  
Mail Stop: O-7H4M  
Washington, DC 20555-0001  
(E-mail: ocaamail.resource@nrc.gov)

Josh Kirstein, Law Clerk  
Katherine Tucker, Law Clerk  
Atomic Safety and Licensing Board Panel  
Mail Stop: T-3 F23  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
(E-mail: Josh.Kirstein@nrc.gov)  
(E-mail: Katie.Tucker@nrc.gov)

Sherwin E. Turk, Esq.  
Beth N. Mizuno, Esq.  
David E. Roth, Esq.  
Brian G. Harris, Esq.  
Office of the General Counsel  
Mail Stop: O-15D21  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
(E-mail: Sherwin.Turk@nrc.gov)  
(E-mail: Beth.Mizuno@nrc.gov)  
(E-mail: david.roth@nrc.gov)  
(E-mail: brian.harris@nrc.gov)

Manna Jo Greene  
Stephen C. Filler  
Karla Raimundi  
Hudson River Sloop Clearwater, Inc.  
724 Wolcott Ave.  
Beacon, NY 12508  
(E-mail: mannaajo@clearwater.org)  
(E-mail: karla@clearwater.org)  
(E-mail: stephenfiller@gmail.com)

Joan Leary Matthews, Esq.  
Associate Commissioner  
Hearings and Mediation Services  
New York State Department of  
Environmental Conservation  
625 Broadway, 14th Floor  
Albany, NY 12233-1500  
(E-mail: jlmatthe@gw.dec.state.ny.us)

John J. Sipos, Esq.  
Charlie Donaldson Esq.  
Assistant Attorneys General  
Office of the Attorney General  
of the State of New York  
The Capitol  
Albany, NY 12224-0341  
(E-mail: John.Sipos@ag.ny.gov)

Melissa-Jean Rotini, Esq.  
Assistant County Attorney  
Office of Robert F. Meehan, Esq.  
Westchester County Attorney  
148 Martine Avenue, 6th Floor  
White Plains, NY 10601  
(E-mail: MJR1@westchestergov.com)

Thomas F. Wood, Esq.  
Daniel Riesel, Esq.  
Victoria Shiah, Esq.  
Sive, Paget & Riesel, P.C.  
460 Park Avenue  
New York, NY 10022  
(E-mail: driesel@sprlaw.com)  
(E-mail: vshiah@sprlaw.com)

John Louis Parker, Esq.  
Office of General Counsel, Region 3  
NYS Dept. of Environmental Conservation  
21 S. Putt Corners Road  
New Paltz, New York 12561-1620  
(E-mail: jlparker@gw.dec.state.ny.us)

Michael J. Delaney, Esq.  
Vice President -Energy Department  
New York City Economic Development  
Corporation (NYCDEC)  
110 William Street New York, NY 10038  
mdelaney@nycedc.com

Phillip Musegaas, Esq.  
Deborah Brancato, Esq.  
Riverkeeper, Inc.  
20 Secor Road  
Ossining, NY 10562  
(E-mail: phillip@riverkeeper.org)  
(E-mail: dbrancato@riverkeeper.org)

Daniel E. O'Neill, Mayor  
James Siermarco, M.S.  
Village of Buchanan  
Municipal Building  
236 Tate Avenue  
Buchanan, NY 10511-1298  
(E-mail: vob@bestweb.net)  
(E-mail: smurray@villageofbuchanan.com)

Robert D. Snook, Esq.  
Assistant Attorney General  
Office of the Attorney General  
State of Connecticut  
55 Elm Street  
P.O. Box 120  
Hartford, CT 06141-0120  
(E-mail: Robert.Snook@po.state.ct.us)

Janice A. Dean, Esq.  
Assistant Attorney General  
Office of the Attorney General  
of the State of New York  
120 Broadway, 26th Floor  
New York, New York 10271  
(E-mail: Janice.Dean@ag.ny.gov)

*Signed (electronically) by Jonathan M. Rund*

Jonathan M. Rund, Esq.  
MORGAN, LEWIS & BOCKIUS LLP  
1111 Pennsylvania Ave., NW  
Washington, DC 20004  
Phone: (202) 739-5061  
Fax: (202) 739-3001  
E-mail: jrund@morganlewis.com

*Counsel for Entergy Nuclear Operations, Inc.*