

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of ) ) ENTERGY NUCLEAR OPERATIONS, INC. ) ) (Indian Point Nuclear Generating Units 2 and 3) )	Docket Nos. 50-247-LR and 50-286-LR  May 3, 2013
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**ENTERGY'S REPLY TO CLEARWATER AND NRC STAFF FINDINGS OF FACT  
AND CONCLUSIONS OF LAW FOR CONTENTION CW-EC-3A  
(ENVIRONMENTAL JUSTICE)**

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Pursuant to the Atomic Safety and Licensing Board’s (“Board”) February 28, 2013 Order,<sup>1</sup> Entergy Nuclear Operations, Inc. (“Entergy”) submits its Reply to the Hudson River Sloop Clearwater, Inc. (“Clearwater”) and U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) Staff Findings of Fact and Conclusions of Law on Clearwater Contention EC-3A (“CW-EC-3A”). These Reply Findings and Conclusions are based on the evidentiary record in this proceeding, and are set out in numbered paragraphs, with corresponding citations to the record of this proceeding.

**I. INTRODUCTION**

1. On March 22, 2013, Entergy, the NRC Staff, and Clearwater filed proposed findings of fact and conclusions of law on CW-EC-3A.<sup>2</sup> CW-EC-3A raises a National

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<sup>1</sup> Licensing Board Order (Granting Parties Joint Motion for Alteration of Filing Schedule) at 1 (Feb. 28, 2013) (unpublished).

<sup>2</sup> Entergy’s Proposed Findings of Fact and Conclusions of Law for Contention CW-EC-3A (Environmental Justice) (Mar. 22, 2013) (“Entergy Proposed Findings”), *available at* ADAMS Accession No. ML13081A746; NRC Staff’s Proposed Findings of Fact and Conclusions of Law Part 10: Contentions CW-EC-3A (Environmental Justice) (Mar. 22, 2013) (“NRC Staff Proposed Findings”), *available at* ADAMS Accession No. ML13081A748; Post-Hearing Findings of Fact and Conclusions of Law Supporting Contention EC-3A Regarding Environmental Justice (Mar. 22, 2013) (“Clearwater Proposed Findings”), *available at* ADAMS Accession No. ML13081A759.

Environmental Policy Act (“NEPA”) challenge to whether the NRC Staff’s Final Supplemental Environmental Impact Statement (“FSEIS”) adequately examines and discloses the potential that a severe accident at Indian Point Energy Center (“Indian Point”) would cause disproportionately high and adverse radiological impacts to minority and low-income (*i.e.*, environmental justice) populations in the surrounding region.

2. The parties’ filings confirm that three key issues are not in dispute. First, an environmental justice review entails disclosing any disproportionately *high and adverse* impacts to environmental justice populations.<sup>3</sup> Second, the Commission has determined, in the Generic Environmental Impact Statement (“GEIS”) and its corresponding regulations, that the probability-weighted environmental impacts of a severe accident are SMALL for all plants.<sup>4</sup> Third, challenges to emergency planning are outside the scope of this contention.<sup>5</sup>

3. With respect to those issues that remain in dispute, Clearwater makes broad assertions that lack legal and evidentiary support, fails to acknowledge contrary evidence, and frequently mischaracterizes the record. In fact, Clearwater largely repeats its prefiled testimony and, in many cases, ignores contrary evidence and binding precedent. Clearwater also provides few citations to the record and offers many arguments that stray far beyond the issues properly within the scope of CW-EC-3A and this proceeding.<sup>6</sup> To the limited extent that Clearwater does

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<sup>3</sup> Clearwater Proposed Findings at 48.

<sup>4</sup> See NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants at 5-115 (May 1996) (“GEIS”) (NYS00131C); 10 C.F.R. Pt. 51, Sub. A, App. B, Tbl. B-1.

<sup>5</sup> See, e.g., Initial Statement of Position for Clearwater’s Contention EC-3A Regarding Environmental Justice at 6 (Dec. 22, 2011) (“Clearwater Position Statement”) (CLE000002) (indicating that CW-EC-3A “did not challenge Entergy’s emergency planning”).

<sup>6</sup> See, e.g., Clearwater Proposed Findings at 53-58 (providing no supporting citations to the record, but arguing that the FSEIS is flawed because it does not consider whether emergency plans are effective).

cite to the record, those citations are frequently inaccurate and misleading.<sup>7</sup>

4. For example, Clearwater asserts that the Commission’s generic finding that the environmental impacts of a severe accident are SMALL for all plants is not dispositive, or even relevant, to an environmental justice contention.<sup>8</sup> In so arguing, Clearwater dismisses binding Commission precedent that “no site-specific severe accident impacts analysis need be done” for license renewal.<sup>9</sup> Even if Clearwater were permitted to challenge the generic conclusion that severe accident risks are SMALL—which it is not—Clearwater has presented no convincing evidence that casts doubt on that conclusion as it relates to environmental justice populations relevant to Indian Point. Instead, Clearwater argues that the environmental impacts of a severe accident are not SMALL because Indian Point’s emergency plans are fundamentally flawed and insufficient to protect numerous populations.<sup>10</sup> As such, Clearwater has removed any ambiguity about whether it challenges existing emergency plans. Indeed, this impermissible collateral attack on emergency plans is the centerpiece of Clearwater’s Proposed Findings.

5. In doing so, Clearwater continues to ignore that any challenge to the scope or effectiveness of emergency plans—even if couched as a NEPA mitigation claim—is prohibited in this proceeding.<sup>11</sup> The Commission has definitively and unambiguously ruled that emergency

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<sup>7</sup> See, e.g., *id.* at 9 (erroneously claiming that Mr. Riggs testified that he analyzed “block level data” even though his testimony states that he analyzed “Block Group data”).

<sup>8</sup> See *id.* at 50-51.

<sup>9</sup> *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-12-15, 75 NRC \_\_\_, slip op. at 6 (June 7, 2012); see also *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-10-11, 71 NRC 287, 316 (2010) (“Because 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 bounding fashion.”).

<sup>10</sup> See, e.g., Clearwater Proposed Findings at 24-25, 29-33, 55, 56 (arguing that the FSEIS should have found that existing emergency plans are likely to be “ineffective” and that the sheltering-in-place and evacuation protective actions pursuant to those plans are “unlikely to be successful” or “effective”).

<sup>11</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

planning issues are not pertinent in license renewal proceedings.<sup>12</sup> Thus, challenges to emergency plans, regardless of how they are characterized, are not within the scope of this proceeding and are beyond the scope of this contention.<sup>13</sup>

6. Even if emergency planning issues were properly within the scope of this proceeding, Clearwater inaccurately claims that Entergy and the NRC Staff “only dispute a few of the facts.”<sup>14</sup> In fact, the opposite is true. Contrary to Clearwater’s assertion, Entergy and NRC Staff witnesses clearly and convincingly demonstrated that Indian Point, New York, and local emergency plans provide reasonable assurance that all populations would be accounted for in the event of a severe accident.<sup>15</sup> Thus, no populations would suffer disproportionately high and adverse impacts.

7. Entergy’s and NRC Staff’s detailed Proposed Findings also make clear that there are no emergency planning deficiencies.<sup>16</sup> These 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. In fact, those emergency plans specifically consider the various

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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>12</sup> *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 & 3), CLI-05-24, 62 NRC 551, 560-61 (2005); *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Stations, Units 2 & 3), CLI-04-36, 60 NRC 631, 640 (2004); *Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 10 (2001).

<sup>13</sup> *See Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 & 3), LBP-08-13, 68 NRC 43, 149, 164-66, 200-01 (2008).

<sup>14</sup> Clearwater Proposed Findings at 1.

<sup>15</sup> *See generally* Entergy Proposed Findings at 76-95 (¶¶ 153-194); NRC Staff Proposed Findings at 61-88 (¶¶ 10.152 to 10.227).

<sup>16</sup> *See generally* Entergy Proposed Findings at 76-95 (¶¶ 153-194); NRC Staff Proposed Findings at 61-88 (¶¶ 10.152 to 10.227).

facilities (e.g., prisons, nursing home, hospitals), and transit-dependent and Spanish-speaking populations identified by Clearwater.<sup>17</sup>

8. Clearwater also stretches the bounds of NRC’s environmental justice review to the breaking point—certainly far beyond what is required by NEPA and Commission precedent. In a gross distortion of the established scope of NRC’s environmental justice review, Clearwater asserts that environmental justice populations include the elderly, disabled, hospital patients, nursing home residents, individuals with limited access to medical care, those with special needs, transportation-dependent individuals, prisoners, and essentially all individuals residing in institutions.<sup>18</sup> Commission precedent and policy, however, clearly establish that the purpose of an environmental justice evaluation is to consider disproportionately high and adverse impacts on *low-income* and *minority* populations.<sup>19</sup> Contrary to Clearwater’s many assertions and examples, Commission precedent and NRC guidance cover no categories other than minority and low-income populations.

9. Clearwater further seeks to expand NRC’s environmental justice evaluation in another manner directly contrary to NEPA and the scope of this contention. Namely, Clearwater focuses on non-radiological impacts and general societal concerns, including the potential for psychological trauma for evacuees, medical needs of elderly and disabled populations, and the potential for crime and violence in prisons and in the Hispanic community during evacuation

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<sup>17</sup> See generally Entergy Proposed Findings at 76-95 (¶¶ 153-194); NRC Staff Proposed Findings at 61-88 (¶¶ 10.152 to 10.227).

<sup>18</sup> Clearwater Proposed Findings at 54-56.

<sup>19</sup> See *Hydro Res., Inc.* (P.O. Box 15910, Rio Rancho, NM 87174) CLI-01-4, 53 NRC 31, 64 (2001); *La. Energy Servs. L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 100 (1998); Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040, 52,040 (Aug. 24, 2004) (“NRC Environmental Justice Policy Statement”) (ENT000260); LIC-203, Rev. 2, Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues, App. C, at C-3 (Feb. 17, 2009 (“LIC-203, Rev. 2”) (ENT000264).

scenarios.<sup>20</sup> Even if such claims were within the contention's scope—which they are not—Clearwater has not presented any credible evidence that such broad, tangential issues warrant consideration under NEPA.

10. For the reasons fully set forth below and for those expressed in the NRC Staff's and Entergy's Proposed Findings, the NRC Staff and Entergy carried their respective burdens of proof. Based on the entire evidentiary record of this proceeding, the NRC has satisfied its NEPA obligations under 10 C.F.R. Part 51 with respect to CW-EC-3A. The preponderance of the evidence shows that the SMALL risk posed by a severe accident at Indian Point will not disproportionately and significantly impact environmental justice populations. Nothing in Clearwater's Proposed Findings alters this fundamental and legally-binding conclusion. The Board should therefore resolve CW-EC-3A in favor of the NRC Staff and Entergy.

## **II. REPLY TO CLEARWATER'S PROPOSED FINDINGS**

### **A. Issues Not Disputed By Clearwater**

11. As an initial matter, Clearwater does not challenge several relevant conclusions and findings. Clearwater does not challenge that Entergy's witnesses, Mr. Donald P. Cleary, Mr. Jerry L. Riggs, and Mr. Michael J. Slobodien are qualified to testify as experts on the issues raised in CW-EC-3A.<sup>21</sup> For example, Clearwater does not dispute that Mr. Slobodien has more than forty years of professional experience in public radiation safety and health, and that he has direct knowledge of Indian Point, state, and local emergency response plans, and applicable federal regulations and guidance pertaining to protecting the public in the unlikely event of an Indian Point severe accident.<sup>22</sup> Nor does Clearwater dispute that NRC Staff's witnesses,

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<sup>20</sup> See, e.g., Clearwater Proposed Findings at 22, 25, 27-29, 34, 54.

<sup>21</sup> See Entergy Proposed Findings at 43-45 (¶¶ 88-92).

<sup>22</sup> See *id.* at 44-45 (¶ 91).



Mr. Jeffrey J. Rikhoff and Ms. Patricia A. Milligan are qualified to testify as experts on environmental justice, emergency planning, and radiological severe accident impacts.<sup>23</sup>

12. Clearwater also does not dispute three fundamental issues. First, Clearwater agrees that an environmental justice review entails disclosing any disproportionately *high and adverse* impacts to environmental justice populations that, due to the population's unique characteristics, may differ from the impacts to the general population.<sup>24</sup> Second, Clearwater also agrees that the Commission determined in the GEIS and its corresponding regulations that the probability-weighted impacts of a severe accident are SMALL for all plants.<sup>25</sup> Third, Clearwater acknowledges that challenges to emergency planning are outside the scope of this proceeding.<sup>26</sup>

**B. Clearwater Impermissibly Challenges the GEIS and NRC Regulation Establishing That Severe Accident Risks Are SMALL**

13. As noted above, Clearwater argues that the GEIS determination that severe accident risks are SMALL for all plants is “irrelevant” because an environmental justice analysis must focus on the “difference” between risks to the general population and environmental justice populations.<sup>27</sup> According to Clearwater, no regulation exempts the NRC Staff from considering severe accident impacts in its environmental justice evaluation, meaning that, as a matter of law, the FSEIS should include a site-specific severe accident evaluation.<sup>28</sup> As discussed below, Clearwater's argument lacks merit.

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<sup>23</sup> See *id.* at 45-47 (¶¶ 93-96).

<sup>24</sup> Clearwater Proposed Findings at 48.

<sup>25</sup> See *id.* at 50-51.

<sup>26</sup> See Clearwater Position Statement at 6 (CLE000002).

<sup>27</sup> Clearwater Proposed Findings at 50-51.

<sup>28</sup> *Id.* at 51, 53.

14. As an initial matter, the GEIS addresses severe accident impacts for all plants and concludes that severe accident risks are SMALL.<sup>29</sup> Table B-1, Appendix B to Subpart A of 10 C.F.R. Part 51 (“Table B-1”) codifies that conclusion. It states 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>30</sup> Commission precedent establishes that this finding applies to all plants<sup>31</sup> and that “no site-specific severe accident impacts analysis need be done” for license renewal.<sup>32</sup> Nothing in the regulation or these Commission decisions carves out an exception requiring a site-specific environmental justice severe accident evaluation.

15. Under binding Commission precedent, an environmental justice evaluation is only concerned with disproportionately *high and adverse* impacts on low-income and minority populations.<sup>33</sup> In other words, a difference between the general population and an environmental justice population is only potentially material if the environmental justice population suffers *high and adverse* impacts and the general population does not. As it relates to this contention, if the impacts of a severe accident are not high and adverse for any population, then there would be no disproportionately high and adverse impacts on any environmental justice population.<sup>34</sup> Thus, the Commission’s generic regulatory conclusion that severe accident risks are SMALL (*i.e.*, they are neither high nor significantly adverse) is directly relevant to CW-EC-3A.

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<sup>29</sup> GEIS at 5-115 (NYS00131C).

<sup>30</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1 (Postulated Accidents; Severe accidents) (emphasis added).

<sup>31</sup> See *Pilgrim*, CLI-10-11, 71 NRC at 316 (“Because 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 bounding fashion.”).

<sup>32</sup> *Pilgrim*, CLI-12-15, slip op. at 6.

<sup>33</sup> See *Hydro Res.*, CLI-01-4, 53 NRC at 64; *LES*, CLI-98-3, 47 NRC at 100; NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,040 (ENT000260).

<sup>34</sup> Entergy Proposed Findings 67-68 (¶ 138).

16. In asserting that severe accident impacts are not SMALL for environmental justice populations and demanding further site-specific analysis, Clearwater fundamentally challenges Table B-1.<sup>35</sup> Table B-1, however, is not subject to collateral challenge in this proceeding.<sup>36</sup> Absent a waiver, no Commission regulation “is subject to attack by way of . . . proof, argument, or other means in any adjudicatory proceeding.”<sup>37</sup> The Commission has very recently made clear that this waiver requirement applies “in *any case* where the viability of an existing rule is questioned in an adjudication.”<sup>38</sup>

17. Clearwater has not sought a waiver of the applicable regulations. But even if it had, the requirements for waiver are strict and require, among other things, demonstrating special circumstances that are “unique” to the facility at issue and not “common to a large class of facilities.”<sup>39</sup> Clearwater has made no such showing. Specifically, Clearwater has not demonstrated that the severe accident issues it raises are specific to Indian Point. In fact, none of Clearwater’s concerns is unique to Indian Point, as compared to other nuclear facilities. To the contrary, Clearwater’s concerns about the general effectiveness of evacuation, sheltering, and U.S. Environmental Protection Agency (“EPA”) dose guidelines are fundamentally generic.<sup>40</sup>

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<sup>35</sup> Clearwater Proposed Findings at 51.

<sup>36</sup> See *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Plant), LBP-11-13, 73 NRC 534, 568 (2011) (holding that a petitioner may not challenge the socioeconomic impacts of a severe accident, unless it “first successfully petitions for a waiver or exception,” because Table B-1 codifies “the Commission’s determination that, for any license renewal of a nuclear power plant, the probability-weighted consequences of a severe accident are small”); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-2 73 NRC 28, 46 (2011) (“[N]o rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding’ unless the petitioner first obtains a waiver. One such regulation that cannot be challenged is the determination that, for any license renewal of a nuclear power plant, the probability-weighted consequences of a severe accident are small.”).

<sup>37</sup> 10 C.F.R. § 2.335(a).

<sup>38</sup> *Exelon Generation Co., LLC* (Limerick Generating Station, Units 1 & 2), CLI-12-19, 76 NRC \_\_\_, slip op. at 14 (Oct. 23, 2012) (emphasis added).

<sup>39</sup> *Millstone*, CLI-05-24, 62 NRC at 560.

<sup>40</sup> See, e.g., *Fla. Power & Light Co.* (Turkey Point Units 6 & 7), LBP-11-6, 73 NRC \_\_\_, slip op. at 86-87 (Feb. 28, 2011); *Millstone*, CLI-05-24, 62 NRC at 561; Mr. Lawrence T. Christian, et al.; Denial of Petition for

Thus, Clearwater has failed to show special circumstance unique to Indian Point that would support a waiver authorizing a site-specific analysis beyond the bounding GEIS evaluation.

**C. Clearwater Has Presented No Credible Evidence Establishing the GEIS Severe Accident Evaluation Is Inapplicable to Environmental Justice Populations Surrounding Indian Point**

18. Even if Clearwater were permitted to challenge, in this license renewal proceeding, the generic binding conclusion that severe accident risks are SMALL, Clearwater has not presented sufficient evidence to invalidate its applicability to environmental justice populations surrounding Indian Point. In fact, Clearwater provides no substantive discussion of the GEIS severe accident evaluation. Instead, Clearwater uses its Proposed Findings as an opportunity to argue that emergency plans are ineffective and insufficient.

19. Aside from the fact that challenges to emergency plans are outside the scope of this proceeding and this contention (*see* Section II.D below), Clearwater’s argument that a severe accident would more adversely impact environmental justice populations fails because the GEIS specifically considers emergency planning issues.<sup>41</sup> And contrary to Clearwater’s assertion, the GEIS does not assume that “everything will go according to plan” in the event of a severe accident.<sup>42</sup> Rather, the GEIS severe accident evaluation specifically considers various emergency planning issues, including protective action uncertainties and evacuation-associated risks.<sup>43</sup> Clearwater fails to acknowledge—much less dispute—this discussion in the GEIS.

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Rulemaking, 70 Fed. Reg. 75,085 (Dec. 19, 2005); Emergency Preparedness at Nuclear Power Plants; Denial of Petitions for Rulemaking, 55 Fed. Reg. 5603 (Feb. 16, 1990) (ENT000282).

<sup>41</sup> Entergy Proposed Findings at 69-72 (¶¶ 142-145).

<sup>42</sup> *See* Clearwater Proposed Findings at 58.

<sup>43</sup> As such, the GEIS, along with the hearing record in this proceeding, reasonably address the environmental significance of a severe accident, including any uncertainty and controversy involving impacts. *See* 40 C.F.R. § 1508.27.

Thus, the GEIS reasonably and appropriately considers the various emergency planning issues alleged by Clearwater.

20. Furthermore, nothing in the Commission's regulations prohibits the NRC Staff from relying on the existing GEIS generic severe accident evaluation to satisfy its environmental justice obligations.<sup>44</sup> Thus, the FSEIS reasonably incorporates the existing generic severe accident environmental analysis in the GEIS to satisfy its obligations under NEPA.<sup>45</sup>

**D. Clearwater's Emergency Planning Challenges Are Not Within the Scope of License Renewal**

21. The Commission has definitively and repeatedly ruled, without exception, that emergency planning issues are not within the scope of license renewal proceedings.<sup>46</sup> As such, there is no debate that emergency planning issues are not within the scope of this proceeding and are beyond the scope of CW-EC-3A. In admitting this contention, the Board made clear that it does not involve a challenge to emergency plans.<sup>47</sup>

22. Notably, the Board rejected several other contentions challenging emergency preparedness and evacuation planning.<sup>48</sup> In rejecting those contentions, the Board explained that 10 C.F.R. § 50.47(a)(1)(i) "places consideration of emergency plans outside the scope of this proceeding and is supported by NRC case law."<sup>49</sup> In issuing this regulation, the Commission

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<sup>44</sup> See, e.g., *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 101 (1983) ("The generic method chosen by the agency is clearly an appropriate method of conducting the hard look required by NEPA.").

<sup>45</sup> 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>46</sup> *Millstone*, CLI-05-24, 62 NRC at 560-61; *Millstone*, CLI-04-36, 60 NRC at 640; *Turkey Point*, CLI-01-17, 54 NRC at 9.

<sup>47</sup> *Indian Point*, LBP-08-13, 68 NRC at 201.

<sup>48</sup> *Id.* at 149, 164-66.

<sup>49</sup> *Id.* at 149.

explained that no emergency preparedness findings are necessary for license renewal because current regulatory requirements “provide reasonable assurance that an acceptable level of emergency preparedness exists at any operating reactor at any time in its operating lifetime.”<sup>50</sup> As such, a challenge to the scope or effectiveness of emergency plans—even if couched as an environmental justice or NEPA mitigation claim—is prohibited in this proceeding.<sup>51</sup> Contrary to Clearwater’s assertions, the Commission has created no exceptions or loopholes to the well-established prohibition on emergency planning challenges in license renewal proceedings.

23. Notwithstanding this unambiguous regulatory language and precedent, the overwhelming focus of Clearwater’s Proposed Findings is on its overt claim that area emergency planning measures, primarily pertaining to sheltering and evacuations, are inadequate.<sup>52</sup> As a result, Clearwater maintains that the NRC Staff should have undertaken a detailed, building-to-building analysis of ways to mitigate those alleged emergency planning deficiencies.<sup>53</sup> Not surprisingly, Clearwater never cites the governing regulation on this issue or the Board’s rulings that CW-EC-3A is not a challenge to emergency plans.<sup>54</sup> Nor does Clearwater acknowledge binding Commission precedent likewise prohibiting emergency plan challenges—even if

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<sup>50</sup> Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,966-67 (Dec. 31, 1991).

<sup>51</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 severe accident mitigation alternative review—a NEPA-based review).

<sup>52</sup> See, e.g., Clearwater Proposed Findings at 24-25, 29-33, 55, 56.

<sup>53</sup> *Id.* at 2.

<sup>54</sup> *Indian Point*, LBP-08-13, 68 NRC at 201; see also *id.* at 149-150, 165-166; Licensing Board Order (Granting in Part and Denying in Part Applicant’s Motions in Limine) at 35 (Mar. 6, 2012) (“March 6, 2012 Order”) (unpublished) (“At evidentiary hearing, the Board is capable of distinguishing between disparaging comments against Indian Point’s emergency plans and Clearwater’s witnesses’ descriptions of how certain [environmental justice] populations will be adversely harmed by a severe accident compared to the general population.”).

presented in connection with a NEPA mitigation claim—in license renewal proceedings.<sup>55</sup>

24. Instead, Clearwater boldly, but incorrectly, claims that the Board already ruled that consideration of emergency planning issues is “required” as part of the FSEIS environmental justice analysis.<sup>56</sup> In other words, rather than acknowledge the prohibition on emergency planning challenges, Clearwater asserts just the opposite—that such challenges are actually within the scope of CW-EC-3A. In so arguing, Clearwater fundamentally misconstrues the Board’s admissibility decision as a merit’s ruling and ignores the Board’s determination that CW-EC-3A does not (and cannot) involve a challenge to emergency plans.

#### **E. Clearwater’s Emergency Planning Challenges Lack Merit**

25. Clearwater argues that the FSEIS should have found that existing emergency plans are likely to be “ineffective” and that the sheltering-in-place and evacuation protective actions pursuant to those plans are “unlikely to be successful” or “effective.”<sup>57</sup> In other words, Clearwater’s environmental justice claim is fundamentally premised on its assumption that sheltering-in-place and evacuation in accordance with existing emergency plans will be unsuccessful because there will be a “breakdown” in the system when things do not go as planned.<sup>58</sup> Even if these asserted emergency planning “breakdowns” were properly within the scope of this proceeding and CW-EC-3A, Clearwater inaccurately claims that Entergy and the NRC Staff “only dispute a few of the facts.”<sup>59</sup> As discussed below, Clearwater is wrong.

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<sup>55</sup> See *Pilgrim*, CLI-10-11, 71 NRC at 302; see also *Millstone*, CLI-05-24, 62 NRC at 560-61; *Millstone*, CLI-04-36, 60 NRC at 640; *Turkey Point*, CLI-01-17, 54 NRC at 9.

<sup>56</sup> Clearwater Proposed Findings at 5.

<sup>57</sup> *Id.* at 24-25, 29-33, 55, 56.

<sup>58</sup> *Id.* at 13.

<sup>59</sup> *Id.* at 1.

26. Entergy and NRC Staff witnesses clearly and convincingly demonstrated that Indian Point, New York, and local emergency plans provide reasonable assurance that all populations would be accounted for in the event of a severe accident, and thus, no populations would suffer disproportionately high and adverse impacts.<sup>60</sup> Entergy's and NRC Staff's detailed Proposed Findings also make clear that there are no emergency planning deficiencies.<sup>61</sup> The referenced emergency plans have been repeatedly 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 environmental justice populations.<sup>62</sup> In other words, the evidence in this proceeding provides no basis to conclude that emergency plans would not work as described, and further demonstrates that these plans specifically account for facility residents (*e.g.*, prisons, nursing home, hospitals, schools), and transit-dependent and Spanish-speaking populations.<sup>63</sup>

27. As one example of Clearwater's numerous emergency plan challenges, Clearwater notes that shelter-in-place may be used for populations that are not readily mobile (*e.g.*, prisons, hospitals) at up to 5 rem in normal circumstances and up to 10 rem under unusually hazardous circumstances.<sup>64</sup> As further noted by Clearwater, the dose guideline for the general population is 5 rem, even under unusually hazardous circumstances.<sup>65</sup> According to

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<sup>60</sup> Entergy Proposed Findings at 79, 85 (¶¶ 158, 170); NRC Staff Proposed Findings at 31 (¶ 10.72).

<sup>61</sup> Entergy Proposed Findings at 77 (¶ 155); NRC Staff Proposed Findings at 31 (¶ 10.72).

<sup>62</sup> Entergy Proposed Findings at 77 (¶ 155); NRC Staff Proposed Findings at 31 (¶ 10.72).

<sup>63</sup> Entergy Proposed Findings at 86-95 (¶¶ 173-94); NRC Staff Proposed Findings at 87-88 (¶ 10.226).

<sup>64</sup> Clearwater Proposed Findings at 14-15.

<sup>65</sup> *Id.*



Clearwater, this means that populations that are not readily mobile would suffer disparate impacts because they are allowed to receive “double” the dose allowed for the general public.<sup>66</sup>

28. Clearwater ignores that sheltering-in-place is an accepted and federally-recognized protective action recommendation.<sup>67</sup> Further, the 5 and 10 rem guidelines are not unique to Indian Point, but come directly from EPA protective action recommendation guidance established to “safeguard public health.”<sup>68</sup> NRC regulations require consistency with this guidance.<sup>69</sup> Consistent with this guidance, local emergency plans designate shelter-in-place as an appropriate protective action option for certain institutions.<sup>70</sup> Thus, Clearwater essentially challenges generic EPA protective action guidance and NRC emergency planning regulations, neither of which is properly within the scope of CW-EC-3A or this proceeding.<sup>71</sup>

29. Furthermore, Clearwater provided no evidence that all (or even most) of the facilities identified in local emergency plans as suitable for sheltering would be considered environmental justice populations under the NRC’s Environmental Justice Policy Statement.<sup>72</sup> As such, local emergency plans create no disparity because those plans treat facilities with environmental justice populations in a manner consistent with facilities that do not contain environmental justice populations. In other words, while Clearwater attempts to establish a link between its sheltering concerns and environmental justice populations, it fails because the cited

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<sup>66</sup> *Id.* at 21.

<sup>67</sup> See Entergy Proposed Findings at 83-84 (¶¶ 167-68).

<sup>68</sup> EPA Guidance 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents at iii (May 1992) (“EPA Guidance 400-R-92-001”) (ENT00284A).

<sup>69</sup> See 10 C.F.R. § 50.47(b)(10).

<sup>70</sup> Entergy Proposed Findings at 83-84 (¶ 167).

<sup>71</sup> See *Indian Point*, LBP-08-13, 68 NRC at 150, 200-01.

<sup>72</sup> Entergy Proposed Findings at 83-84 (¶ 167).

protective action guidelines apply consistently across all populations regardless of minority and low-income status.

30. Assuming for argument's sake that Clearwater's shelter-in-place argument is not an impermissible emergency planning challenge, Clearwater's claim that sheltered populations would receive "double" the dose allowed for the general public still does not establish a disparate high and adverse impact.<sup>73</sup> As support, Clearwater relies on Dr. Kanter's testimony claiming that the consensus in the medical establishment is that there is no cutoff for health risk caused by radiation and that there is a linear relationship between exposure and risk.<sup>74</sup>

31. Dr. Kanter's testimony, however, does not establish that any increased radiation risk is high and adverse under NEPA. To the contrary, Mr. Slobodien and Ms. Milligan—two highly-qualified health physicists—testified that any dose within EPA guidelines carries no significant risk because such a dose would not exceed generally accepted norms or result in high and adverse human health effects.<sup>75</sup> Clearwater also ignores that the linear-no-threshold hypothesis, which conservatively assumes that, at low doses, a simple proportionate relationship exists between dose and risk, formed the basis for EPA's 10 rem dose guideline.<sup>76</sup> Thus,

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<sup>73</sup> Clearwater Proposed Findings at 2, 16.

<sup>74</sup> *Id.* at 23-24.

<sup>75</sup> Clearwater's attempt to discount Mr. Slobodien's and Ms. Milligan's opinions as based solely on EPA guidance lacks merit. Clearwater Proposed Findings at 23, 56. As an initial matter, EPA is the lead federal agency responsible for establishing protective action guidance for radiological emergency planning. 44 C.F.R. § 351.22(a); *see also* 42 U.S.C. § 2021(h). Further, EPA Guidance 400-R-92-001 is directly relevant to the issue at hand because EPA issued the protective action recommendations in that document to "safeguard public health." EPA Guidance 400-R-92-001 at iii (ENT00284A). Those recommendations specifically considered radiation guidelines from national and international consensus standard organizations. Not surprisingly, the 10 rem guideline is identical to other generally-accepted standards defining "low" doses, including those found in the National Research Council report entitled, "Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII – Phase 2" (RIV000093). In light of this evidence, it was fully appropriate for Mr. Slobodien and Ms. Milligan, as undisputed experts in the emergency planning and health physics fields, to rely on EPA guidelines in concluding that any dose within EPA guidelines would not result in disproportionately high and adverse human health effects.

<sup>76</sup> Entergy Proposed Findings at 85-86 (¶ 171).

Clearwater has failed to establish that doses at EPA-thresholds are “high and adverse” for NEPA purposes.<sup>77</sup>

32. As another example, Clearwater argues that prisoners would likely suffer disparate impacts in the event of a severe accident because the NRC Staff did not “prove” that Sing Sing Correctional Facility could be evacuated fast enough to ensure that EPA dose guidelines would be met.<sup>78</sup> According to Clearwater, NRC Staff testimony indicating Sing Sing could safely evacuate its prisoners in a timely manner improperly relied on the opinion of Colonel Michael Kirkpatrick, the highest-ranking official for the New York State Department of Corrections (“NYSDOC”) and head of the NYSDOC emergency response team.<sup>79</sup> Clearwater maintains that testimony from Dr. Edelstein, Mr. Papa, and Dr. Larsen, none of whom has any emergency planning expertise,<sup>80</sup> establishes that a timely evacuation would be difficult because prisoners may become violent, riot, and attempt to escape during an evacuation.<sup>81</sup>

33. Clearwater’s argument about NYSDOC’s alleged inability to safely evacuate its prisoners and the need for the NRC Staff to “prove” this can be done for purposes of license renewal is precisely the type of emergency planning challenge barred by NRC regulations and precedent.<sup>82</sup> Even so, more than ample evidence demonstrates that NYSDOC is capable of safely evacuating its prisoners in a timely fashion, if necessary.

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<sup>77</sup> Arguably, a contrary conclusion would result in a “high and adverse” impact conclusion for any release that would or could result in a dose up to the EPA guidelines. Such a result is both impractical and inconsistent with current practices.

<sup>78</sup> Clearwater Proposed Findings at 23.

<sup>79</sup> *Id.* at 57-58.

<sup>80</sup> See Entergy Proposed Findings at 47-48, 49, 51-52 (¶¶ 98, 100, 104).

<sup>81</sup> See Clearwater Proposed Findings at 22-23.

<sup>82</sup> See, e.g., *Millstone*, CLI-05-24, 62 NRC at 562 (stating that demographic and evacuation related concerns are not “unique” challenges that warrant consideration in a license renewal proceeding).

34. Ms. Milligan testified that NYSDOC “routinely moves prisoners within New York State and has the capability to quickly evacuate and relocate prisoners when faced with conditions such as fires or flooding.”<sup>83</sup> As she further noted, “[c]orrections officials are confident they will be able to relocate prisoners from Sing Sing should the need arise.”<sup>84</sup> Ms. Milligan based this testimony on, among other things, discussions she had with Colonel Kilpatrick and Mr. Theodore J. Fisch, Chief of Radiological Emergency Preparedness Program, New York State Department of Homeland Security and Emergency Services, Office of Emergency Management.<sup>85</sup> This is precisely the type of information that an expert in the emergency planning field can and should rely upon in offering an opinion.

35. But if that were not enough, the publicly-available Witt Report—which Clearwater relied upon earlier in this proceeding—also discusses the details of Sing Sing’s evacuation plan and confirms that Sing Sing can and would be evacuated, if necessary.<sup>86</sup> All this evidence refutes Clearwater’s testimony from witnesses lacking emergency planning expertise and speculating that NYSDOC is incapable of safely evacuating its prisoners. Accordingly, the Board should find in the NRC Staff’s and Entergy’s favor on this issue and conclude—consistent with the requirements of state law and views of responsible senior New York State officials—that NYSDOC is capable of safely evacuating its prisoners, if necessary.

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<sup>83</sup> NRC Staff Testimony of Jeffrey J. Rikhoff and Patricia A. Milligan Regarding Contention CW-EC-3A (Environmental Justice) at 30 (A36) (Mar. 30, 2012) (“NRC Staff Testimony”) (NRC000063); *see also* Official Transcript of Proceedings, Indian Point Nuclear Generating Units 2 & 3 at 2768:11-19 (Milligan) (Oct. 23, 2012) (“Oct. 23, 2012 Tr.”).

<sup>84</sup> NRC Staff Testimony at 30 (A36) (NRC000063).

<sup>85</sup> *Id.*; Oct. 23, 2012 Tr. at 2768:11-19 (Milligan).

<sup>86</sup> James Lee Witt Associates, LLC, Review of Emergency Preparedness of Area Adjacent to Indian Point and Millstone at 4.5.2.1, at 71 (2003) (ENT000263). In 2003, at the request of then-New York Governor Pataki, James Lee Witt Associates, an emergency preparedness consulting firm, prepared the Witt Report as an independent review of emergency preparedness for the area around Indian Point. *See id.* at vi.

**F. The FSEIS Need Not Consider Emergency Planning Improvements as “Mitigation”**

36. In what amounts to another collateral attack on emergency plans, Clearwater argues that the FSEIS should have considered emergency planning improvements as additional severe accident mitigation measures.<sup>87</sup> As discussed below, Clearwater has not substantiated its claim that NEPA requires some additional discussion of severe accident mitigation.

37. As an initial matter, all of Clearwater’s proposed “mitigation” measures are meant to address purported emergency planning deficiencies. As explained in the preceding sections, such challenges—even if presented in connection with a NEPA mitigation claim—are prohibited by the regulations governing this proceeding.<sup>88</sup> In any event, as also noted above, existing emergency plans already provide reasonable assurance that appropriate protective measures would be taken for all members of the public in the event of a severe accident. Thus, any further consideration of emergency planning improvements as part of this proceeding is unauthorized and unnecessary.

38. In addition, NEPA requires only that possible mitigation measures “be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated.”<sup>89</sup> As noted above, a severe accident at Indian Point would result in SMALL probability-weighted impacts to minority and low-income populations. As such, there is no need for the FSEIS to consider emergency planning “improvements” as additional mitigation measures for severe accidents, as suggested by Clearwater. As the D.C. Circuit has held, an agency may decline to

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<sup>87</sup> Clearwater Proposed Findings at 58.

<sup>88</sup> *Indian Point*, LBP-08-13, 68 NRC at 149; *see also Pilgrim*, CLI-10-11, 71 NRC at 302.

<sup>89</sup> *City of Carmel-by-the-Sea v. U.S. Dep’t of Transp.*, 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 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).

discuss mitigation measures when it believes an action's environmental impact will be minor.<sup>90</sup>

Thus, NEPA requires no further consideration of severe accident mitigation in this case.

39. Finally, it bears emphasis that the FSEIS already extensively considers severe accident mitigation in the severe accident mitigation alternatives ("SAMA") evaluation, an evaluation on which Clearwater did not proffer an admissible contention. NEPA requires a reasonably complete discussion of possible mitigation measures,<sup>91</sup> but gives agencies discretion as to how to meet this mandate.<sup>92</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>93</sup> Accordingly, the FSEIS considers severe accident mitigation to the extent required by NRC regulations and NEPA.

**G. Clearwater Focuses on Non-Environmental Justice Populations and Subgroups That Are Beyond the Scope of CW-EC-3A**

40. To the extent that Clearwater does focus on environmental justice issues, it largely seeks to expand NRC's environmental justice evaluation well beyond minority and low-income populations, in a manner directly contrary to NEPA, Commission precedent, and NRC's formal environmental justice guidance. Clearwater asserts, at various times, that environmental justice populations include the elderly, disabled, hospital patients, nursing home residents, individuals with limited access to medical care, those with special needs, transportation-

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<sup>90</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>91</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

<sup>92</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>93</sup> See Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,481 (NYS000127).

dependent individuals, prisoners, and essentially all individuals residing in institutions.<sup>94</sup>

41. Commission precedent and policy clearly establish that the purpose of an environmental justice evaluation is to consider disproportionately high and adverse impacts on *low-income* and *minority* populations.<sup>95</sup> Contrary to Clearwater's assertion, Commission precedent and published NRC guidance cover no categories other than minority and low-income populations. For example, NRC precedent and guidance do not include all elderly people as an environmental justice population regardless of minority or low-income status.<sup>96</sup> Neither does NRC precedent and guidance include all people in prisons and nursing homes as environmental justice populations regardless of minority or low-income status.<sup>97</sup> Accordingly, the Board should reject Clearwater's attempt to expand NRC's environmental justice evaluation beyond minority and low-income populations.

42. Clearwater also repeats its argument that the FSEIS should have used Block-level data instead of the higher-level Block Group data to identify minority and low-income subgroups such as the population within Sing Sing Correctional Facility.<sup>98</sup> As a threshold legal matter, Commission precedent establishes that an environmental justice evaluation does not involve looking at "vaguely defined, shifting 'subgroups'" within low-income and minority communities "because the potential universe of aggrieved individuals and groups is . . . 'virtually infinite,

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<sup>94</sup> Clearwater Proposed Findings at 11-13.

<sup>95</sup> *See Hydro Res.*, CLI-01-4, 53 NRC at 64; *LES*, CLI-98-3, 47 NRC at 100; NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,040 (ENT000260); LIC-203, Rev. 2, App. C, at C-3 (ENT000264).

<sup>96</sup> Oct. 23, 2012 Tr. at 2744:1-4 (Rikhoff) (stating that the NRC does not consider the elderly, prisoners, or nursing home inhabitants as part of environmental justice populations because Executive Order 12898 does not identify these groups).

<sup>97</sup> *Id.* at 2744:25 (Rikhoff) (affirming that individuals would be considered part of an environmental justice population based on their minority and low-income status, not on other defining characteristics).

<sup>98</sup> Clearwater Proposed Findings at 9.

limited only by one's imagination.'"<sup>99</sup> Clearwater's insistence on a separate, detailed, subgroup-by-subgroup analysis contravenes this precedent.

43. Furthermore, Mr. Riggs and Mr. Rikhoff both testified that census Block Group data include all people located within that Block Group's geographic bounds, including both institutional and non-institutional populations.<sup>100</sup> As these witnesses explained, Block Group data, through the Group Quarter classification, account for environmental justice populations, whether a subgroup or not.<sup>101</sup> Clearwater's witnesses never contradicted this testimony. As such, using Block Group data complies with NEPA's "hard look" requirement because these data specifically include information about all populations (including the populations inside correctional facilities and other institutions).

44. Clearwater mischaracterizes the record to support its argument that a subgroup analysis using Block data is necessary.<sup>102</sup> As support, Clearwater erroneously cites Mr. Riggs's testimony and claims that he analyzed "*block level data* to find that there are 67 correctional institutions within 50 miles of Indian Point."<sup>103</sup> Contrary to Clearwater's mischaracterization, Mr. Riggs clearly stated that he "confirmed that there are 67 *Block Groups* within the 50-mile region that contain census-defined correctional institutions."<sup>104</sup> Mr. Riggs also testified that "the

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<sup>99</sup> *Private Fuel Storage, LLC*, (Indep. Spent Fuel Storage Installation) CLI-02-20, 56 NRC 147, 155-56 (2002).

<sup>100</sup> Testimony of Entergy Witnesses Donald P. Cleary, Jerry L. Riggs, and Michael J. Slobodien Regarding Contention CW-EC-3A (Environmental Justice) at 40-41 (Mar. 29, 2012) (Entergy Testimony") (ENT000258); NRC Staff Testimony at 21-22 (NRC000063). *See also* Oct. 23, 2012 Tr. at 2896:17-18 (Rikhoff) ("Block group data is just as accurate. It includes the block-level data.").

<sup>101</sup> Oct. 23, 2012 Tr. at 2905:3-11 (Riggs), 2911:11-18 (Rikhoff) (explaining data included in Group Quarter classification). *See also* NUREG-1437, Supp. 38, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding Indian Point Nuclear Generating Units Nos. 2 and 3, Final Report at A-119 (Dec. 2010) ("FSEIS") (NYS00133D).

<sup>102</sup> *See* Clearwater Proposed Findings at 13, 53.

<sup>103</sup> *Id.* at 9 (emphasis added); *see also id.* at 20, 54.

<sup>104</sup> Entergy Testimony at 43 (A51) (ENT000258) (emphasis added); *see also* Oct. 23, 2012 Tr. at 2905:15-17 (Riggs).



Block Group data includes, and the Census Bureau classifies, all people not living in housing units as living in Group Quarters.”<sup>105</sup> Importantly, Mr. Riggs further concluded that all relevant Block Groups are identified in the FSEIS, including the Block Group that contains Sing Sing.<sup>106</sup> On the other hand, Clearwater offered no evidence identifying any minority or low-income population that the NRC Staff purportedly omitted from the FSEIS because it used Block Group data, rather than census Block data.<sup>107</sup> Accordingly, the record shows that Clearwater’s “subgroup” analysis is unnecessary because the FSEIS accounts for all environmental justice populations, including those inside correctional institutions and other such facilities.

#### **H. Clearwater Focuses on Non-Radiological Impacts and General Societal Concerns That Are Beyond the Scope of CW-EC-3A**

45. Contrary to CW-EC-3A’s limited scope and Commission environmental justice precedent, Clearwater focuses heavily on non-radiological impacts and general societal concerns in the event of a severe accident. In particular, Clearwater extensively discusses the potential for psychological and emotional trauma for evacuees; illness resulting from evacuation; elderly and disabled population medical needs during an evacuation; and the potential for psychological impacts, crime, and violence in prisons and in the Hispanic community.<sup>108</sup>

46. As admitted, however, CW-EC-3A’s scope is limited to whether a severe accident at Indian Point would result in disproportionately significant and adverse radiological impacts on environmental justice populations.<sup>109</sup> At the hearing, the Board emphasized that CW-EC-3A was limited to the alleged “potential for disproportional increased exposure to *radiation* to the

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<sup>105</sup> Entergy Testimony at 40 (A47) (ENT000258).

<sup>106</sup> *Id.* at 43 (A51).

<sup>107</sup> See Entergy Proposed Findings at 59-60 (¶¶ 122-123).

<sup>108</sup> Clearwater Proposed Findings at 1, 11-13.

<sup>109</sup> See *Indian Point*, LBP-08-13, 68 NRC at 200.

environmental justice community.”<sup>110</sup> Thus, the Board should disregard Clearwater’s claims concerning alleged non-radiological impacts.<sup>111</sup>

47. Furthermore, even if such claims were within the contention’s scope, Clearwater has not presented any credible or compelling evidence that such non-radiological impacts warrant consideration under NEPA.<sup>112</sup> Nor is NEPA the appropriate context in which to assess fairness or equity issues such as Clearwater’s medical access arguments.<sup>113</sup> “[W]ere 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>114</sup> Further, none of the broader impacts asserted by Clearwater are site-specific—they would pertain to essentially every emergency evacuation. Accordingly, the Board should find that Clearwater’s non-radiological and general societal concerns are beyond the scope of NEPA and this contention.

### **III. REPLY TO NRC STAFF’S PROPOSED FINDINGS**

48. The NRC Staff correctly points out that, contrary to Clearwater’s claim that the FSEIS environmental justice evaluation applies a “cookie-cutter approach,” the FSEIS environmental justice evaluation considers various site-specific factors.<sup>115</sup> For example, the NRC Staff evaluated the extensive, comprehensive, and site-specific operational monitoring data from the Indian Point Radiological Environmental Monitoring Program (“REMP”).<sup>116</sup> These

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<sup>110</sup> Oct. 23, 2012 Tr. at 2735:7-8 (Judge McDade) (emphasis added).

<sup>111</sup> See *S. Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-10-5, 71 NRC 90, 100 (2010).

<sup>112</sup> See Entergy Proposed Findings at 73-74 (¶ 149).

<sup>113</sup> NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,045 (ENT000260).

<sup>114</sup> *Id.* (quoting *LES*, CLI-98-3, 47 NRC at 102-03 (quoting *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 776 (1983))).

<sup>115</sup> NRC Staff Proposed Findings at 39-41, 49-50 (¶¶ 10.94-10.98, 10.122-10.125).

<sup>116</sup> See *id.*; see also FSEIS at 4-54 to -56 (NYS00133B).

REMP data allowed the NRC Staff to perform a comprehensive and site-specific special pathway receptor assessment that supports the FSEIS conclusion that there are no disproportionately high and adverse impacts to environmental justice populations. As such, the Board should reject Clearwater's assertion that the FSEIS environmental justice evaluation focuses only on whether there will be operational changes during the license renewal period.<sup>117</sup> To the contrary, the FSEIS relies on extensive Indian Point-specific operational data, gathered over decades of safe plant operation, in support of its conclusions.

#### **IV. CONCLUSION**

49. For the foregoing reasons, and those expressed in the NRC Staff's and Entergy's Proposed Findings, the NRC Staff and Entergy carried their respective burdens of proof, and, based on the entire evidentiary record of this proceeding, the NRC has satisfied its NEPA obligations under 10 C.F.R. Part 51 with respect to CW-EC-3A. In summary, the preponderance of the evidence shows that the SMALL risk posed by severe accidents impacts will not disproportionately and significantly impact environmental justice populations. Nothing in Clearwater's Proposed Findings alters this fundamental conclusion. The Board should therefore resolve CW-EC-3A in favor of the NRC Staff and Entergy.

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<sup>117</sup> See Clearwater Proposed Findings at 1, 8.

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Executed in Accord with 10 C.F.R. § 2.304(d)

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OPERATIONS, INC.

Dated in Washington, D.C.  
this 3rd day of May 2013

**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)	)	
	)	May 3, 2013

**CERTIFICATE OF SERVICE**

Pursuant to 10 C.F.R. § 2.305 (as revised), I certify that, on this date, copies of “Entergy’s Reply to Clearwater and NRC Staff Proposed Findings of Fact and Conclusions of Law For Contention CW-EC-3A (Environmental Justice)” were served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned proceeding.

*Signed (electronically) by Lance A. Escher*

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