

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

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NRC STAFF'S REPLY FINDINGS OF FACT  
AND CONCLUSIONS OF LAW ON  
CONTENTION CW-EC-3A (ENVIRONMENTAL JUSTICE)

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**I. INTRODUCTION**

In accordance with 10 C.F.R. § 2.1209 and the Atomic Safety and Licensing Board's Orders,<sup>1</sup> proposed findings of fact and conclusions of law concerning Hudson River Sloop Clearwater, Inc.'s ("Clearwater") Contention CW-EC-3A (Environmental Justice) ("Contention CW-EC-3A") were timely filed by Entergy Nuclear Operations, Inc ("Entergy" or "Applicant"),<sup>2</sup> Clearwater,<sup>3</sup> and the NRC Staff ("Staff")<sup>4</sup> on March 22, 2013. Pursuant to the Board's Order of February 28, 2013, the Staff herewith files its reply to the Applicant's<sup>5</sup> and Clearwater's proposed findings of fact and conclusions of law concerning Contention CW-EC-3A.<sup>6</sup>

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<sup>1</sup> See (1) Scheduling Order (July 1, 2010), at 19; (2) Order (Scheduling Post-Hearing Matters and Ruling on Motions to File Additional Exhibits) (Jan. 15, 2013) at 1; and (3) Order (Granting Parties' Joint Motion for Alteration of Filing Schedule) (Feb. 28, 2013).

<sup>2</sup> Entergy's Proposed Findings of Fact and Conclusions of Law for Contention CW-EC-3A (Environmental Justice), dated March 22, 2013 ("Entergy PF").

<sup>3</sup> Post-Hearing Findings of Fact and Conclusions of Law Supporting Contention EC-3A Regarding Environmental Justice, dated March 22, 2013 ("Clearwater PF").

<sup>4</sup> NRC Staff's Proposed Findings of Fact and Conclusions of Law Part 10: Contention CW-EC-3A (Environmental Justice), dated March 22, 2013 ("Staff's Proposed Findings" or "Staff PF").

<sup>5</sup> The Staff has reviewed Entergy's proposed findings and has determined that a detailed reply is not required. In this regard, the Staff has concluded that the Applicant's findings concerning Contention CW-EC-3A are not inconsistent with the Staff's findings, and any important substantive differences

## II. FINDINGS OF FACT

### A. Evidence Adduced at Hearing

#### 1. The Staff's Environmental Justice Analysis in the FSEIS

10.237. In its proposed findings, Clearwater asserts that the Staff failed to consider impacts to prison populations, transport-dependent populations, Hispanic residents, nursing home residents, and other institutionalized residents in the event of a severe accident in the Final Supplemental Environmental Impact Statement ("FSEIS").<sup>7</sup> On the other hand, the Staff and Entergy assert that the Indian Point offsite and onsite emergency plans contain specific provisions to protect low-income and minority populations from precisely the adverse impacts Clearwater claims these populations will receive, such that there would be no disproportionately high and adverse impacts to those populations.<sup>8</sup>

10.238. Having considered the evidence proffered by Clearwater, Entergy and the Staff, we find that Clearwater's evidence, either (1) directly challenges the adequacy of the Indian Point emergency plans and thus falls outside the scope of this license renewal proceeding, or (2) even if those claims were within the scope of this proceeding, fails to show that the impacts to low-income and minority populations would be disproportionately high and adverse as compared to the general population in the event a severe accident were to occur at IP2 or IP3 during the license renewal term. Accordingly, Clearwater has not demonstrated that the FSEIS is deficient for failing to analyze these impacts.

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between the Staff's and Applicant's respective views of the evidence are reflected in their proposed findings of fact and conclusions of law filed on March 22, 2013.

<sup>6</sup> The paragraph numbering system in these reply findings follows the numbering utilized in the Staff's Proposed Findings. Thus, Staff Reply Finding ¶ 10.237 should be read to follow ¶ 10.236 in the Staff's Proposed Findings.

<sup>7</sup> See *generally* Clearwater PF.

<sup>8</sup> See *generally* Staff PF; Entergy PF.

10.239. In its proposed findings, Clearwater contends that the Staff's environmental justice ("EJ") analysis is deficient because the Staff "simply attempted to identify the locations of the EJ populations, but nothing else" and then decided "that because there is nothing special about those locations, there could be no disproportionate impact."<sup>9</sup> Clearwater's characterization of the Staff's EJ analysis is incorrect. In accordance with NRC Staff guidance, the Staff conducted its environmental justice review in the FSEIS by (1) identifying the location of minority and low-income populations that may be affected by the operation of the nuclear power plant during the license renewal term or by refurbishment activities associated with license renewal, (2) determining whether there would be any potential human health or environmental effects to these populations as a result of continued operations or via special pathway receptors, and (3) determining whether any of the effects may be disproportionately high and adverse.<sup>10</sup> Based on this analysis, the NRC Staff concluded that there would be no disproportionately high and adverse impacts to minority and low-income populations from the continued operation of IP2 and IP3 during the license renewal term.<sup>11</sup> The process by which the Staff conducted its EJ analysis in the FSEIS is described in detail in the Staff's proposed findings.<sup>12</sup>

10.240. Clearwater also asserts that the Staff "concluded that the impacts on the EJ populations would be the same as on the general population."<sup>13</sup> This was not the Staff's

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<sup>9</sup> Clearwater PF at 3-4, 13-14.

<sup>10</sup> NRC Staff Testimony on CW-EC-3A of Jeffrey J. Rikhoff and Patricia A. Milligan Regarding Contention CW-EC-3A (Environmental Justice) ("Staff Testimony on CW-EC-3A") (Mar. 30, 2012) (Ex. NRC000063) at 11-17. See *also* LIC-203, Rev. 2, Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues (Feb. 17, 2009) (Ex. ENT000264) ("LIC-203, Rev. 2").

<sup>11</sup> Staff PF ¶ 10.100; FSEIS (Ex. NYS000133B) at 4-53.

<sup>12</sup> Staff PF ¶¶ 10.87-10.100.

<sup>13</sup> Clearwater PF at 4, 8.

conclusion. In the FSEIS, the Staff concluded that “there would be no disproportionately high and adverse impacts to minority and low-income populations from the continued operation of IP2 and IP3 during the license renewal term.”<sup>14</sup>

10.241. In its proposed findings, Clearwater asserts that the Staff failed to identify prisoners and other institutionalized populations in its EJ analysis.<sup>15</sup> The Staff addressed this issue in detail in its proposed findings and asserts that all minority and low-income populations, including those in prisons and other institutions, were reasonably identified in the FSEIS.<sup>16</sup>

10.242. Additionally, Clearwater asserts that “while determining which of the many institutional populations qualify as EJ populations may be a difficult task, Entergy’s identification of 67 correctional institutions within the 50 mile radius illustrates that it is not impossible.”<sup>17</sup> Entergy witness, Mr. Riggs, testified that he “confirmed that there are 67 block groups within the 50-mile region that contain census-defined correctional facilities. Of those, 57 census Block Groups exceed the NRC defined minority criteria . . . .”<sup>18</sup> However, as Judge McDade stated at the hearing in reference to this data, “in . . . instances where you have a penal institution in the census block you can identify that there is a penal institution in the census block, and you can determine what the minority population is of the census block, but you can’t relate directly one to

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<sup>14</sup> Staff PF ¶ 100; FSEIS (Ex. NYS000133B) at 4-53. See Executive Order 12898 (Ex. ENT000259) (“each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. See also CEQ Environmental Justice Guidance (Ex. ENT000266); NRC Environmental Justice Policy Statement (Ex. ENT000260); LIC-203, Rev. 2 (Ex. ENT000264).

<sup>15</sup> Clearwater PF at 9, 20.

<sup>16</sup> See Staff PF ¶¶ 10.114-10.118.

<sup>17</sup> Clearwater PF at 54.

<sup>18</sup> Testimony of Entergy Witnesses Donald P. Cleary, Jerry L. Riggs, and Michael J. Slobodien Regarding Contention CW-EC-3A (Environmental Justice) (Mar. 29, 2012) (“Entergy Testimony on CW-EC-3A”) (Ex. ENT000258) at 43.

the other.”<sup>19</sup> Moreover, Staff witness, Mr. Rikhoff, testified that under the Staff’s current guidance for license renewal, as part of the Staff’s EJ analysis, the Staff would have tried to determine whether the minority population at Sing Sing would be disproportionately affected as compared to the general population if the Staff had determined that there was an environmental effect that the Staff needed to investigate further.<sup>20</sup> The Staff addressed this issue in further detail in its proposed findings.<sup>21</sup>

10.243. Clearwater also asserts that the Staff “failed to identify peculiar factors [to EJ communities] in its FSEIS.”<sup>22</sup> The Staff addressed this issue in its proposed findings and contends that it has reasonably considered factors peculiar to EJ communities.<sup>23</sup>

10.244. Additionally, Clearwater contends that the Generic Environmental Impact Statement for License Renewal of Nuclear Plants (“GEIS”) analysis finding for severe accidents is irrelevant and that the Staff should have considered the impacts of severe accidents on the EJ populations.<sup>24</sup> Further Clearwater asserts that the Staff “acknowledged that EJ impacts could be disproportionate when effects on the general population are small.”<sup>25</sup> The Staff asserts that the NRC Staff’s EJ analysis reasonably relied on the analysis of environmental impacts in the GEIS and addressed Clearwater’s claims in detail in its proposed findings.<sup>26</sup>

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<sup>19</sup> Tr. at 2904.

<sup>20</sup> Tr. at 2750-51.

<sup>21</sup> See Staff PF ¶¶ 10.123-10.124.

<sup>22</sup> Clearwater PF at 3-4, 13-14, 17-18.

<sup>23</sup> Staff PF ¶ 119-125.

<sup>24</sup> Clearwater PF at 7, 10, 50-51.

<sup>25</sup> Clearwater PF at 7, 51.

<sup>26</sup> See Staff PF ¶¶ 10.126-10.138, 10.229, 10.231-10.232.

10.245. Clearwater also contends that the Staff must examine mitigation measures where EJ impacts are significant.<sup>27</sup> The Staff addressed this issue in its proposed findings.<sup>28</sup>

10.246. In its proposed findings, Clearwater references a presentation by the NRC Division of New Reactors regarding the VC Summer EJ analysis and asserts that the Staff's interpretation of the NRC environmental justice guidance has been inconsistent.<sup>29</sup> The Staff addressed this issue in its proposed findings.<sup>30</sup> Moreover, as Staff witness, Mr. Rikhoff, testified, the Staff's environmental justice assessment in the FSEIS meets the regulatory requirements at 10 CFR § 51.95(c) and is consistent with the NRC Staff guidance outlined in Section 4.4.6 of NUREG-1555, Supplement 1: Standard Review Plans for Environmental Reviews for Nuclear Power Plants – Supplement 1: Operating License Renewal (October 1999) ("ESRP Supp. 1") (Ex. NYS00019B); the Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions, 69 Fed. Reg. 52,040 (Aug. 24, 2004) ("EJ Policy Statement") (Ex. ENT000260), and LIC-203, Rev. 2, Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues (Feb. 17, 2009) (Ex. ENT000264) ("LIC-203, Rev. 2").<sup>31</sup>

## 2. Emergency Planning and Protective Actions

10.237. In its proposed findings, Clearwater contends that Staff witness, Ms. Milligan, acknowledged that the NRC has not looked at whether EJ populations would be at higher risk from radiation during an accident compared to the general population.<sup>32</sup> However, both the

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<sup>27</sup> Clearwater PF at 58.

<sup>28</sup> See Staff PF ¶¶ 10.127, 10.135 n. 49, 10.235.

<sup>29</sup> Clearwater PF at 18-20.

<sup>30</sup> See Staff PF ¶¶ 10.119-10.125.

<sup>31</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 9-10.

<sup>32</sup> Clearwater PF at 10.



Staff's and Entergy's witnesses testified that the emergency plans are developed and implemented to provide adequate protection to *all populations* within the emergency planning zones ("EPZ") around nuclear power plants.<sup>33</sup> The Staff addressed this issue its proposed findings and asserts that the NRC's regulatory framework for emergency planning combined with New York State law provide for the protection of *all populations*, including all low-income and minority populations, in the event of a severe accident at Indian Point, through offsite and onsite emergency plans.<sup>34</sup>

10.238. Clearwater also asserts that disparate impacts were written into the Westchester County and Rockland County emergency plans because these plans contemplate the use of sheltering-in-place as a protective action for EJ populations such that these populations would be "left behind" when the general population evacuates.<sup>35</sup> Additionally, Clearwater contends that the Westchester County emergency plan appears deficient because it does not account for securing food, water, and proper ventilation for populations that would be sheltering-in-place and that the Rockland County plan appears deficient because it does not contain sufficient detail about buses to be used during evacuations.<sup>36</sup> The Staff addressed these issues in its proposed findings and asserts that the emergency plans govern the sheltering-in-place and evacuation of EJ populations in the event of a severe accident at Indian Point during the license renewal term; therefore, these issues directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding.<sup>37</sup> Even if Clearwater's claims

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<sup>33</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 23-24; Entergy Testimony on CW-EC-3A (Ex. ENT000258) at 49-50; Tr. at 2761, 2877.

<sup>34</sup> See Staff PF ¶¶ 10.141-10.148.

<sup>35</sup> Clearwater PF at 14-16.

<sup>36</sup> *Id.*

<sup>37</sup> See Staff PF ¶¶ 10.152-10.181.

were in scope, the Staff asserts that Clearwater has not demonstrated that these impacts would be disproportionately high and adverse to EJ populations as compared to the general population.<sup>38</sup>

10.239. In its proposed findings, Clearwater also asserts that Fukushima and Chernobyl have demonstrated that EJ populations could receive greater exposure to radiation when sheltering-in-place, not just from the plume, but from cesium and other radioisotopes that would be “deposited in the ground, in the groundwater, and in the food supply.”<sup>39</sup> However, as Staff witness, Ms. Milligan, testified, the emergency planning framework includes a 50-mile ingestion pathway EPZ, which is an area encompassing about a 50-mile radius around the nuclear power plant for which protective actions are in place to protect the public from exposure from ingestion of radiologically contaminated food and milk products.<sup>40</sup> Additionally, Applicants must submit to the NRC radiological emergency response plans of state and local governments that are within the 10-mile plume exposure EPZ and the 50-mile ingestion pathway EPZ.<sup>41</sup> Moreover, as Ms. Milligan, testified, during a severe accident, after the plume has passed or release has ended, sheltering-in-place would be accompanied by plans to evacuate or relocate populations out of the impacted area if conditions require such action.<sup>42</sup>

10.240. We find that Clearwater’s assertions regarding cesium and other radioisotopes impacting the groundwater and food supply directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding. Even if Clearwater’s claims were within

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<sup>38</sup> *Id.*

<sup>39</sup> Clearwater PF at 13.

<sup>40</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 24.

<sup>41</sup> Entergy Testimony on CW-EC-3A (Ex. ENT000258) at 47-48.

<sup>42</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 33, citing NUREG-0654/FEMA-REP-1 Supp. 3 (Ex. NRC000067) at 59.

the scope of this proceeding, Clearwater has not demonstrated that these impacts would be disproportionately high and adverse to EJ populations as compared to the general population.

3. Impacts to Prison Populations

10.241. In its proposed findings, Clearwater contends that prisoners may experience disparate impacts in the event of an evacuation at Indian Point because they may receive higher radiation doses than the general public due to the inadequacy of sheltering-in-place at Sing Sing and the potential for a lengthy evacuation at Sing Sing.<sup>43</sup> Further Clearwater asserts that prisoners may experience disparate impacts from the potential for the breakdown of social order during an evacuation.<sup>44</sup> The Staff addressed these issues regarding estimated doses to prison populations, evacuation time estimates, and psychological health impacts to prisoners in its proposed findings and asserts that the emergency plans include provisions such that there would not be a disproportionately high and adverse impact on the prison population at Sing Sing and other correctional facilities in the event of a severe radiological accident at Indian Point.<sup>45</sup> As such, the Staff contends that Clearwater's claims directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding.<sup>46</sup> Moreover, the Staff contends that it was not required under NEPA to consider psychological health impacts such as the potential for a breakdown in social order within prison populations in the FSEIS.<sup>47</sup>

10.242. In its proposed findings, Clearwater also asserts that the Staff made both legal and factual errors in failing to recognize that even if the difference in radiation doses would be within the Environmental Protection Agency's ("EPA") guidelines, it would nonetheless impose a

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<sup>43</sup> Clearwater PF at 20-26.

<sup>44</sup> *Id.*

<sup>45</sup> See Staff PF ¶¶ 10.157-10.189, 10.230.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.* ¶ 10.230.

health burden.<sup>48</sup> Although Staff witness, Ms. Milligan, acknowledged that the dose to populations in Sing Sing may be different from the general population, Ms. Milligan asserted that based on her experience as a health physicist, she believed that the dose would not be inappropriate or disproportionate because it would be well within federal dose guidelines established for public safety.<sup>49</sup> Moreover, in an environmental justice analysis, the standard is whether impacts would be “*disproportionately high and adverse*.”<sup>50</sup> Based on the implementation of the EPA protective action guides and the definition of *disproportionately high and adverse human health effects*,<sup>51</sup> Ms. Milligan concluded that there would not be a

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<sup>48</sup> Clearwater PF at 20-26.

<sup>49</sup> Tr. at 2760-66, 2780.

<sup>50</sup> See Executive Order 12898 (Ex. ENT000259) (“each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. See also CEQ Environmental Justice Guidance (Ex. ENT000266); NRC Environmental Justice Policy Statement (Ex. ENT000260); LIC-203, Rev. 2 (Ex. ENT000264).

<sup>51</sup> Ms. Milligan’s statements at the hearing were based on the definitions in the CEQ EJ guidelines which define “disproportionately high and adverse human health effects” as follows:

Disproportionately high and adverse human health effects: When determining whether human health effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

(a) Whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death; and

(b) Whether the risk or rate of hazard exposure by a minority population, low-income population, or Indian tribe to an environmental hazard is significant (as employed by NEPA) and appreciably exceeds or is likely to appreciably exceed the risk or rate to the general population or other appropriate comparison group; and

(c) Whether health effects occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

CEQ EJ Guidelines (Ex. ENT000266) at 26. NRC Guidance, LIC-203, Rev. 2, indicates that the NRC specifically considered CEQ’s EJ Guidance in coming up with its guidance in LIC-203, Rev. 2. Further,

disproportionately high and adverse impact on prisoners or other EJ populations in the event of a severe accident at Indian Point.<sup>52</sup> The Staff addressed these issues in further detail in its proposed findings.<sup>53</sup>

10.243. After reviewing the evidence submitted by Clearwater, the Staff, and Entergy, we find that the Staff's reliance on federal dose guidelines established by the EPA for public safety was reasonable and not in error.

10.244. Clearwater also asserts that the Staff made a legal error when the Staff allegedly failed to reach an independent conclusion about whether prison unrest could occur and impermissibly repeated the opinion of a New York State official.<sup>54</sup> We note, however, that hearsay evidence is generally admissible in our administrative proceedings.<sup>55</sup> Moreover, expert witnesses are generally permitted to base their opinion testimony on hearsay evidence.<sup>56</sup>

10.245. Clearwater asserts that the prison population at Sing Sing may be disproportionately impacted in the event of an evacuation at Sing Sing.<sup>57</sup> As both Ms. Milligan and Entergy's witness, Mr. Slobodien, have stated, the evacuation of the prison population is

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LIC-203, Rev. 2 incorporates CEQ's definition of "disproportionately high and adverse human health effects." LIC-203, Rev. 2 (Ex. ENT000264) at C-1.

<sup>52</sup> Tr. at 2762-63, 2778-79, 2782-83.

<sup>53</sup> See Staff PF ¶¶ 10.157-10.170.

<sup>54</sup> Clearwater PF at 23-26, 57-58.

<sup>55</sup> See *Philadelphia Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-863, 25 NRC 273, 279 (1987); *Southern Cal. Edison Co.* (San Onofre Nuclear Generating Station, Units 2 & 3), ALAB-717, 17 NRC 346, 366 (1983); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 411-12 (1976).

<sup>56</sup> Although the testimony of an expert witness that is based on work or analyses performed by other people is essentially hearsay, such expert testimony is admissible in administrative proceedings if its reliability can be determined through questioning of the expert witness. *Philadelphia Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 718 (1985); *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 & 2), LBP-86-12, 23 NRC 414, 418-19 (1986).

<sup>57</sup> Clearwater PF at 20-26.

under the authority of the New York State Department of Corrections (“NYSDOC”).<sup>58</sup> Ms. Milligan testified that she met with Colonel Michael Kirkpatrick, who is the head of NYSDOC, is the highest-ranking official there, and is also the head of their correctional emergency response team.<sup>59</sup> Ms. Milligan also stated that Colonel Kirkpatrick has been working for the correctional system for a very long time – approximately 20 years.<sup>60</sup> For security reasons, the NYSDOC does not make the emergency plans for Sing Sing or any other prison publicly available.<sup>61</sup> However, Ms. Milligan stated that she reviewed the entire emergency plan for Sing Sing and other correctional facilities for other types of emergencies in New York State with Colonel Kirkpatrick.<sup>62</sup> Therefore, Ms. Milligan has personal knowledge regarding the contents of the Sing Sing emergency plan. During the hearing, Ms. Milligan testified regarding portions of her conversation with Colonel Kirkpatrick regarding the evacuation of prisoners at Sing Sing.<sup>63</sup> We find that these statements given by a high ranking New York State corrections official are both reliable and relevant to the question of potential impacts to prison populations; thus, Ms. Milligan reasonably relied on these statements to form her expert opinion on the issue of prison evacuations.

10.246. Moreover, Ms. Milligan’s conclusions and statements are based not only on her conversation with NYSDOC officials, but also on her 27 years of experience in emergency preparedness as well as her review of documents and exhibits in preparation for her testimony

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<sup>58</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 29-30; Entergy Testimony (ENT000258) at 54.

<sup>59</sup> Tr. at 2768-69.

<sup>60</sup> Tr. at 2910.

<sup>61</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 30; Tr. at 2770-71.

<sup>62</sup> Tr. at 2768.

<sup>63</sup> Tr. at 2768-69, 2771, 2908-2910, 2917.

in this proceeding.<sup>64</sup> For example, in her testimony regarding Hurricane Katrina, Ms. Milligan referred to Exhibit NRC000073, Hurricanes Katrina and Rita Incident Review, and testified that, “over 7500 prisoners were evacuated in three days out of nightmare conditions to multiple locations more than 60 miles away, with no loss of life, serious injuries or escapes,” which suggests no breakdown in social order during a prison evacuation.<sup>65</sup>

10.247. Given Ms. Milligan’s extensive experience in the area of emergency planning and her personal knowledge of the contents of the Sing Sing emergency plans, we find that the Staff did not commit legal error and Ms. Milligan reasonably relied on the statements of a high-ranking New York State official as a basis for her expert opinion and testimony.

10.248. Clearwater also questions the expertise of Staff witness, Ms. Milligan, with regard to her statements about the evacuation timing of Sing Sing prison. Clearwater attempts to discredit Ms. Milligan’s testimony because she is, “a health physicist without expertise in sociology who only reviewed the evacuation plans for Sing Sing during a 3-hour meeting” and because she allegedly “relied upon the correctional official’s opinion regarding inmate behavior.”<sup>66</sup>

10.249. Given Ms. Milligan’s expertise in the field of emergency planning combined with her personal knowledge of the contents of the Sing Sing emergency plans, we find Ms. Milligan’s testimony regarding these issues to be credible. In addition to her health physics background, Ms. Milligan is employed as a Senior Level Advisor for Emergency Preparedness and Response with the NRC and has approximately 27 years of experience in the field of

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<sup>64</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 2-6; Milligan CV (Ex. NRC000064); Tr. at 2913.

<sup>65</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 34, citing the Hurricanes Katrina and Rita Incident Review (Ex. NRC000073) at 21.

<sup>66</sup> Clearwater PF at 22-26.

emergency preparedness.<sup>67</sup> Therefore, issues relating to the evacuations of populations, including prison populations, during radiological emergencies, fall directly under her area of expertise. Moreover, given the sensitive nature of the evacuation plan for Sing Sing (a maximum security prison),<sup>68</sup> Ms. Milligan is the only witness in this proceeding who has actually viewed the contents and has personal knowledge of the Sing Sing emergency plan. Additionally, Ms. Milligan has spoken to multiple high-ranking New York State officials regarding prison evacuations to reasonably and permissibly inform her expert opinion.<sup>69</sup> Accordingly, we find Ms. Milligan's testimony to be credible.

10.250. Clearwater also seeks to contrast Ms. Milligan's expertise with the purported expertise of its own witnesses – Mr. Papa as a former Sing Sing inmate, Dr. Edelstein as a sociologist, and Dr. Larsen who provided emergency medicine for prisoners during Hurricane Katrina.<sup>70</sup> However, unlike Ms. Milligan, none of Clearwater's experts have any demonstrated experience in the development or implementation of emergency plans for prison populations, nor do any of these witnesses have experience or academic training in radiological emergency preparedness. Moreover, as a prisoner, Mr. Papa was not charged with the responsibility to ensure that prisons are properly prepared for secure evacuation, nor did Mr. Papa have access to, or knowledge regarding, the emergency plans for Sing Sing. Accordingly, we afford little weight to Mr. Papa's testimony regarding evacuation time estimates for the prisoners at Sing Sing.

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<sup>67</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 2-6; Milligan CV (Ex. NRC000064); Tr. at 2913.

<sup>68</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 30; Tr. at 2770-71.

<sup>69</sup> Tr. at 2768-69. Ms. Milligan also testified that she spoke with Mr. Theodore J. Fisch, Chief of Radiological Emergency Preparedness Program, New York State Department of Homeland Security and Emergency Services, Office of Emergency Management, regarding the evacuation of prison populations at Sing Sing. Staff Testimony on CW-EC-3A (Ex. NRC000063) at 30

<sup>70</sup> Clearwater PF at 22-26.



4. Impacts to Transport-Dependent Populations

10.251. Clearwater contends that transport-dependent populations may experience more radiation exposure than the general population during an evacuation at Indian Point because: 1) residents would have to walk to open air bus stops to wait for buses; 2) those buses would have a longer travel time because they would have to stop to pick up other people; and 3) the geographical isolation of Peekskill and other EJ communities would lead to longer travel times.<sup>71</sup> However, as Staff witness, Ms. Milligan, testified, there has been considerable attention directed towards the evacuation of transport-dependent populations near Indian Point.<sup>72</sup> The Staff addressed Clearwater's allegations regarding bus evacuations and time estimates in detail in its proposed findings and asserts that the emergency plans include provisions such that there would not be a disproportionately high and adverse impact on minority and low-income residents who are dependent on public transportation in the event of a severe radiological accident at Indian Point.<sup>73</sup> As such, the Staff contends that Clearwater's claims directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding.<sup>74</sup>

5. Impacts to Residents of Nursing Homes, Hospitals, and Other Assisted-Living Facilities

10.252. Clearwater asserts that in the aftermath of Fukushima, "EJ populations, such as the elderly, disabled, and the infirm," were the most susceptible to non-radiological effects.<sup>75</sup> Additionally, Clearwater expressed concerns regarding elderly residents in assisted care

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<sup>71</sup> Clearwater PF at 2, 29-34.

<sup>72</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 35-36.

<sup>73</sup> See Staff PF ¶¶ 10.190-10.200.

<sup>74</sup> *Id.*

<sup>75</sup> Clearwater PF at 11-12.

facilities and nursing homes and regarding the availability of transportation and medication for those elderly patients in the event of an evacuation.<sup>76</sup> The Staff addressed Clearwater's claims in detail in its proposed findings and asserts that the emergency plans include provisions such that there would not be a disproportionately high and adverse impact on populations in nursing homes, hospitals, and other assisted-living facilities in the event of a severe accident at Indian Point as compared to the general population.<sup>77</sup> Further, the Staff contends that that Clearwater's claims directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding.<sup>78</sup>

10.253. Clearwater also contends that the testimony of its witness, Dr. Larsen, regarding health impacts and the limited availability of medical care and medical emergency personnel available in the aftermath of Hurricane Katrina, confirms that the effects of disasters fall disproportionately on those who are poor, sick, in hospitals, in nursing homes, disabled, and minority individuals who cannot be evacuated.<sup>79</sup> However, as Staff witness, Ms. Milligan, testified, a severe accident at Indian Point would not result in the same conditions as in Hurricane Katrina because of the rigorousness of the emergency preparedness planning for nuclear power plants, differences in the size of the potential area of impact, differences in the type of impact (radiological emergency vs. hurricane/flooding), and contribution of the catastrophic failure of the levees.<sup>80</sup> In addition, Entergy witnesses, Mr. Cleary and Mr. Slobodien, testified that current emergency plans for nuclear power plants already address the

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<sup>76</sup> Clearwater PF at 34-35.

<sup>77</sup> See Staff PF ¶¶ 10.201-10.207.

<sup>78</sup> *Id.*

<sup>79</sup> Clearwater PF at 13, 27-29.

<sup>80</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 33-34, citing Hurricanes Katrina and Rita Incident Review at 21 (Ex. NRC000073). See also Staff PF ¶¶ 10.182-10.189.

lessons learned in the large scale evacuations (including issues identified as part of the Hurricane Katrina evacuations).<sup>81</sup> Accordingly, we find that Clearwater's assertions regarding health impacts in the aftermath of Hurricane Katrina are immaterial and not relevant to the reasonableness of the NRC Staff's environmental justice review of Indian Point, Units 2 and 3.<sup>82</sup>

10.237. Additionally, Executive Order 12898 and NRC guidance, including the Commission's EJ Policy Statement, do not require the Staff to consider persons who are disabled, have special needs, are mobility-impaired, or are transport-dependent as distinct populations in the Staff's environmental justice assessment.<sup>83</sup> Although Clearwater claims that a disproportionate number of elderly people are low income, Clearwater only identifies three assisted living facilities near Indian Point as housing predominantly low-income or minority residents in its proposed findings.<sup>84</sup> Additionally, Clearwater witness, Mr. Simms, testified that the average resident of his own assisted-living facility was "at least middle-class."<sup>85</sup> For these reasons, we find that Clearwater's claims with respect to impacts to the elderly, disabled, and infirm and institutionalized populations in nursing homes, hospitals, and other assisted-living facilities fall outside the scope of this contention because Clearwater has not demonstrated that these populations are also EJ populations (low-income and/or minority populations) that the Staff is required to evaluate in the FSEIS.

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<sup>81</sup> Entergy Testimony on CW-EC-3A (Ex. ENT000258) at 64, citing NUREG/CR-6981, Assessment of Emergency Response Planning and Implementation for Large Scale Evacuations at 65 (Oct. 2008) ("NUREG/CR-6981") (ENT000298).

<sup>82</sup> See Order (Denying Clearwater's Motion to Supplement the Record) (Dec. 5, 2012) (unpublished) (Agencywide Documents and Access Management System ("ADAMS") Accession No. ML12340A179) ("[T]he Board finds that the documents submitted by Clearwater dealing with an unrelated weather event [Hurricane Sandy] are immaterial and not relevant to the reasonableness of the NRC Staff's environmental justice review of Indian Point, Units 2 and 3.").

<sup>83</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 20-21; Tr. at 2744.

<sup>84</sup> Clearwater PF at 34.

<sup>85</sup> Testimony of John Simms in Support of Hudson River Sloop Clearwater, Inc.'s Contention Regarding Environmental Justice (Oct. 11, 2011) ("Simms Testimony") (Ex. CLE000006) at 2.

6. Impacts to Hispanic Residents

10.238. In its proposed findings, Clearwater also asserts that Hispanic residents would experience disparate impacts from the language barrier and due to the community's reliance on public transportation.<sup>86</sup> The Staff addressed these issues in its proposed findings and asserts that the FEMA emergency planning guidance and the State and local emergency plans specifically contemplate mechanisms to aid Hispanic residents as well as other non-English speaking residents such that there would not be a disproportionately high and adverse impact on these populations as compared to the general population in the event of a severe accident at Indian Point.<sup>87</sup> Additionally, the Staff contends that Clearwater's claims directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding.<sup>88</sup>

10.239. Clearwater also asserts that the Hispanic community could potentially react violently because "seeing those private vehicles evacuating expeditiously as others wait [in] the open air for bus[es] to be transported to safety could cause feelings of despair, unfairness, and hopelessness."<sup>89</sup> We find such claims to be speculative and without merit.

7. Emergency Planning Beyond the 10-Mile Emergency Planning Zone

10.240. Clearwater also contends that a major issue is that evacuation planning does not extend beyond a ten mile radius and there are "over 6 million people in potential EJ areas within 50 miles of Indian Point" who may need to be evacuated.<sup>90</sup> In support of its argument,

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<sup>86</sup> Clearwater PF at 34-37.

<sup>87</sup> See Staff PF ¶¶ 10.208-10.213.

<sup>88</sup> *Id.*

<sup>89</sup> Clearwater PF at 34.

<sup>90</sup> Clearwater PF at 16-17.

Clearwater refers to the NRC's recommendation during the accident at Fukushima to evacuate U.S. Citizens within 50 miles of the plant.<sup>91</sup>

10.241. Staff witness, Ms. Milligan, testified that the emergency preparedness framework includes two emergency planning zones.<sup>92</sup> The first is the 10-mile EPZ which is an area encompassing about a 10-mile radius around the nuclear power plant for which protective actions are in place to protect the public from exposure to the plume.<sup>93</sup> The second is the 50-mile EPZ, which is an area encompassing about a 50-mile radius around the nuclear power plant for which protective actions are in place to protect the public from exposure from ingestion of radiologically contaminated food and milk products.<sup>94</sup> Applicants must submit to the NRC radiological emergency response plans of state and local governments that are within the 10-mile plume exposure EPZ and the 50-mile ingestion pathway EPZ.<sup>95</sup>

10.242. Further, as Ms. Milligan explains, the planning for the 10-mile EPZ provides a substantial basis for expansion of emergency protective measures, including evacuation, on an ad hoc basis.<sup>96</sup> For example, should an evacuation need to be expanded, then the plans in place to move the populations within the 10 miles could be expanded as needed to provide for the evacuation of the populations at distances outside of the 10-mile EPZ.<sup>97</sup> Moreover, as Entergy witness, Mr. Slobodien, testified, in a rulemaking petition to expand the 10-mile EPZ, the Commission concluded that the need for protective actions beyond a few miles from the

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<sup>91</sup> *Id.*

<sup>92</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 24.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> Entergy Testimony on CW-EC-3A (Ex. ENT000258) at 47-48.

<sup>96</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 24, citing NUREG-0654/FEMA-REP-1 (Ex. NRC000066) at 12.

<sup>97</sup> *Id.*

plant is extremely unlikely.<sup>98</sup> Moreover, the Commission stated that it “firmly believes that emergency actions could be successfully carried out beyond [the] 10-mile EPZ.”<sup>99</sup>

10.243. We find that Clearwater’s claims regarding the expansion of the 10-mile EPZ directly challenge the adequacy of emergency planning and thus fall outside the scope of this proceeding. Even if Clearwater’s claims were in scope, we find that the Staff and Entergy have submitted sufficient evidence to demonstrate that the planning for the 10-mile EPZ provides for the expansion of emergency protective measures such that the impacts to EJ populations within 50-miles of Indian Point would not be disproportionately high and adverse as compared to the general population.

8. Summary of Findings

10.244. We find that Clearwater’s assertions regarding cesium and other radioisotopes impacting the groundwater and food supply directly challenge the adequacy of emergency planning and fall outside the scope of this proceeding. Even if Clearwater’s claims were within the scope of this proceeding, Clearwater has not demonstrated that these impacts would be disproportionately high and adverse to EJ populations as compared to the general population.

10.245. We find that the Staff’s reliance on federal dose guidelines established by the EPA for public safety was reasonable and not in error.

10.246. We find Ms. Milligan’s testimony regarding impacts to prison populations to be credible. We also find that the Staff did not commit legal error and Ms. Milligan reasonably relied on the statements of a high-ranking New York State official as a basis for her expert opinion and testimony.

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<sup>98</sup> Entergy Testimony on CW-EC-3A (Ex. ENT0000258) at 51, citing Emergency Preparedness at Nuclear Power Plants; Denial of Petitions for Rulemaking, 55 Fed. Reg. 5,603, 5,606 (Feb. 16, 1990) (Ex. ENT000282).

<sup>99</sup> *Id.* at 5606.

10.247. We find that Clearwater's assertions regarding health impacts in the aftermath of Hurricane Katrina (an unrelated weather event) are immaterial and not relevant to the reasonableness of the NRC Staff's environmental justice review of Indian Point, Units 2 and 3.

10.248. We find that Clearwater's claims with respect to impacts to the elderly, disabled, and infirm and institutionalized populations in nursing homes, hospitals, and other assisted-living facilities, fall outside the scope of this contention because Clearwater has not demonstrated that these populations are also EJ populations (low-income and/or minority populations) that the Staff is required to evaluate in the FSEIS.

10.249. We find Clearwater's claims regarding the potential violent reaction of the Hispanic community during an evacuation to be speculative and without merit.

10.250. We find that Clearwater's claims regarding the expansion of the 10-mile EPZ directly challenge the adequacy of emergency planning and thus fall outside the scope of this proceeding. Even if Clearwater's claims were in scope, we find that the Staff and Entergy have submitted sufficient evidence to demonstrate that the planning for the 10-mile EPZ provides for the expansion of emergency protective measures such that the impacts to EJ populations within the 50-miles of Indian Point would not be disproportionately high and adverse as compared to the general population.

10.251. Based on the findings above and in the Staff's Proposed Findings, dated March 22, 2013, we find that Clearwater's evidence fails to show that the impacts to low-income and minority populations will be disproportionately high and adverse as compared to the general population in the event a severe accident were to occur at IP2 or IP3 during the license renewal term.

### III. CONCLUSIONS OF LAW

10.247. Clearwater contends that the Staff should have conducted an independent assessment of the existing emergency plans in its preparation of the FSEIS.<sup>100</sup> Further, Clearwater asserts that “NRC’s NEPA obligations are not satisfied by conclusory statements about the existence and adequacy of other entities’ emergency plans.”<sup>101</sup> However, the Commission has stated that, “the adequacy of existing emergency preparedness plans need not be considered anew as part of issuing a renewed operating license.”<sup>102</sup> Moreover, the NRC specifically considered the effects of emergency preparedness and planning in its generic assessment of environmental consequences from design basis and severe accidents in the GEIS.<sup>103</sup> Accordingly, we conclude that the NRC Staff was not required to conduct an independent assessment of the existing emergency plans in its preparation of the FSEIS.

10.252. Additionally, Clearwater asserts that, “NEPA requires the Staff to compare the effect of the proposed action, license renewal, with the effect of the no-action alternative, which is closure of the plant.”<sup>104</sup> Clearwater further asserts that the Staff “could have missed disproportionate EJ impacts by merely looking at whether operational impacts in the period of extended operation would be different to existing operational impacts, rather than comparing predicted impacts, including severe accidents, to the no-action alternative.”<sup>105</sup> Clearwater has

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<sup>100</sup> Clearwater PF at 14, 52-53, 56-57.

<sup>101</sup> Clearwater PF at 52.

<sup>102</sup> Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,967 (Dec. 13, 1991) (Ex. ENT000270).

<sup>103</sup> Staff PF ¶¶ 10.127-10.137.

<sup>104</sup> Clearwater PF at 53.

<sup>105</sup> Clearwater PF at 9-10. To the extent that Clearwater is suggesting that the Staff failed to consider impacts to EJ populations from the no-action alternative, we note that the NRC Staff’s environmental justice analysis of the human health and environmental effects on minority and low-income populations for the no-action alternative (plant closure) is presented in Section 8.2 of the FSEIS. FSEIS (Ex. NYS000133C) at 8-26; Tr. at 2741-42.



previously sought to expand the scope of its original contention to include challenges to the FSEIS' assessment of the no-action alternative's impacts on EJ populations and we rejected admission of these claims.<sup>106</sup> Thus, Clearwater's attempt to inject these issues into the proceeding by way of its proposed findings must be rejected as impermissible.<sup>107</sup> Accordingly, we find that Clearwater's claims here regarding the no-action alternative fall outside the scope of this contention.

10.253. In its proposed findings, Entergy states that the Indian Point, state, and local emergency plans have been demonstrated 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>108</sup> Thus, Entergy asserts that no population would suffer disproportionately high and adverse impacts.<sup>109</sup> Entergy further states that this finding of reasonable assurance is not subject to review in this proceeding.<sup>110</sup>

10.254. Staff witness, Ms. Milligan testified that, in accordance with 10 C.F.R. § 50.47, before a plant is licensed to operate, the NRC must have "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency."<sup>111</sup> Further, in accordance with 10 C.F.R. § 50.47(a)(2), the NRC will base its finding of reasonable assurance:

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<sup>106</sup> *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3) (July 6, 2011) (unpublished) (ADAMS Accession No. ML111870344).

<sup>107</sup> *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-10-05, 71 NRC 90, 100-05 (2010) ("The scope of a contention is limited to issues of law and fact pled with particularity in the intervention petition, including its stated bases, unless the contention is satisfactorily amended in accordance with our rules."). See also *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-01, 75 NRC 39, 55-56 (2012) (footnotes omitted);

<sup>108</sup> Entergy PF ¶¶ 4, 154-58, 203.

<sup>109</sup> Entergy PF ¶¶ 154-58.

<sup>110</sup> Entergy PF ¶¶ 4, 203.

<sup>111</sup> Staff Testimony on CW-EC-3A (Ex. NRC000063) at 23.

on a review of the FEMA findings and determinations as to whether State and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented, and on the NRC assessment as to whether the applicant's onsite emergency plans are adequate and whether there is reasonable assurance that they can be implemented.

10.255. For license renewal purposes, the Board may rely upon the NRC's existing finding, under 10 C.F.R. Part 50, of reasonable assurance that adequate protective measures can and will be taken in an emergency, in assessing the environmental impacts of license renewal.<sup>112</sup> Accordingly, in as much as the Indian Point, state, and local emergency plans would provide adequate protective measures for all populations in the event of a radiological emergency, we conclude that no EJ population would suffer disproportionately high and adverse impacts in the event of a severe accident at Indian Point during the license renewal term.

10.256. In its proposed findings, Clearwater asserts that the relicensing of Indian Point cannot proceed unless and until the NRC Staff amends the FSEIS to include the "required analysis" of environmental justice impacts.<sup>113</sup> Entergy on the other hand asserts in its proposed findings that after the Board considers the entire record of this proceeding, the FSEIS will be "deemed supplemented" by the Board's decisions on NEPA contentions and by any subsequent Commission decision.<sup>114</sup> For the reasons stated below, we conclude that the FSEIS will be "deemed supplemented" by this adjudicatory decision and by any subsequent Commission decision in this proceeding.

10.257. As Entergy notes, the Commission and licensing boards have routinely followed the process of supplementing EIS conclusions in reactor licensing and other proceedings through adjudicatory decisions to remedy an otherwise deficient EIS, not only in

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<sup>112</sup> Staff PF ¶¶ 10.141-48.

<sup>113</sup> Clearwater PF at 59.

<sup>114</sup> Entergy PF ¶¶ 82-87.

recent decisions, but also in cases dating back decades.<sup>115</sup> Moreover, although an earlier regulation, 10 C.F.R. § 51.52(b)(3),<sup>116</sup> permitting licensing boards to “modify the content” was removed, the Appeal Board in *Limerick* found that 10 C.F.R. § 51.102 essentially replaced the provision in section 51.52 such that amendment of an environmental statement by the adjudicatory hearing record and subsequent licensing board decision is entirely proper under NRC regulations and court precedent.<sup>117</sup> Further, the Appeal Board noted,

We need not decide which regulation controls, for section 51.102 serves the same purpose as its differently worded predecessor, section 51.52(b)(3). LEA's argument is therefore without merit. Section 51.102(a) states that ‘[a] Commission decision on any action for which a final environmental impact statement has been prepared shall be accompanied by or include a concise public record of decision.’ Generally, that record is to be prepared by the staff. 10 C.F.R. § 51.102(b). When an adjudicatory hearing is held on the action, however, the initial decision of the [Licensing Board] . . . will constitute the record of decision. An initial or final decision constituting the record of decision will be distributed as provided in

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<sup>115</sup> Entergy PF ¶¶ 84-85, citing *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-01, 75 NRC 39, 61 (2012) (citing *La. Energy Servs., L.P.* (Nat'l Enrichment Facility), CLI-05-28, 62 NRC 721, 731 (2005)); *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526 (2008); *Dominion Nuclear N. Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 230 (2007) (“But *our own* examination of the entire administrative record leads us to conclude that the Staff's underlying review was sufficiently detailed to qualify as “reasonable” and a “hard look” under NEPA — even if the Staff's description of that review in the FEIS was not. Our explanation below provides an additional detailed discussion as part of the record on the alternative site review. We direct the Staff to include a similar level of detail in future FEIS analyses of alternative sites.”) (emphasis in original); *Hydro Res., Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 53 (2001) (“[T]he Presiding Officer's incorporation into LBP-99-30 of a staff affidavit on costs and benefits also does not require FEIS supplementation . . . in an adjudicatory hearing, to the extent that any environmental findings by the Presiding Officer (or the Commission) differ from those in the FEIS, the FEIS is deemed modified by the decision.”); *Phila. Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 705-07 (1985), *aff'd in part and review otherwise declined*, CLI-86-5, 23 NRC 125 (1986), *remanded in part on other grounds sub nom. Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719 (3d Cir. 1989); *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347 (1975); *S. Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613, 733 (2009).

<sup>116</sup> “An initial decision . . . may include findings and conclusions which affirm or modify the content of the final environmental impact statement prepared by the staff. To the extent that findings and conclusions different from those in the final environmental statement prepared by the staff are reached, the statement will be deemed modified to that extent and the initial decision will be distributed as provided in § 51.26(c).”

<sup>117</sup> *Limerick*, ALAB-819, 22 NRC at 705-07.

§ 51.93. 10 C.F.R. § 51.102(c). Section 51.103 describes the contents of the ‘record of decision,’ noting that it may incorporate by reference any material in the final environmental statement. On its face, 10 C.F.R. § 51.102 thus merges the FES with any relevant licensing board decision to form the complete environmental record of decision—just as former section 51.52(b)(3) did. But even under the stricter construction of section 51.102 urged by LEA, nothing in it precludes modification of an FES by licensing board decision.<sup>118</sup>

10.258. Additionally, as the Commission has explicitly stated, “[t]he adjudicatory record and Board decision (and . . . any Commission appellate decisions) become, in effect, part of the FEIS.”<sup>119</sup> Moreover, we agree with Entergy that 10 C.F.R. § 51.102 governs the resolution of environmental issues following an adjudicatory hearing and requires the Board to consider the adjudicatory record as a whole when evaluating the environmental impacts of the proposed action, to supplement the FSEIS as necessary, and to modify the NEPA analysis and conclusions, if necessary.<sup>120</sup> In addition, as Entergy notes, the Commission has uniformly rejected the argument that supplementing the EIS with the adjudicatory record in a contested proceeding would frustrate public participation in the NEPA process.<sup>121</sup>

10.259. Finally, we note that few federal agencies have internal administrative procedures like the NRC’s for adjudicating or appealing NEPA issues.<sup>122</sup> Nevertheless, multiple

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<sup>118</sup> *Id.* at 706.

<sup>119</sup> *Hydro Res.*, CLI-01-04, 53 NRC at 53 (citing *La. Energy Servs. (Claiborne Enrichment Center)*, CLI-98-3, 47 NRC 77, 89 (1998)).

<sup>120</sup> Entergy PF ¶ 86.

<sup>121</sup> Entergy PF ¶ 87, citing *Hydro Res.*, CLI-01-04, 53 NRC at 53 (“[T]he hearing process itself ‘allows for additional and *more rigorous* public scrutiny of the FES than does the usual ‘circulation for comment.’”) (quoting *Limerick*, ALAB-819, 22 NRC at 707) (emphasis added)).

<sup>122</sup> Entergy notes that agencies such as the Federal Energy Regulatory Commission (“FERC”) have allowed supplementation through public hearings. Entergy PF ¶ 87, citing *Pacific Alaska LNG Co.*, 9 FERC ¶ 61,334, 61,709 (“the CEQ General Counsel suggests that the matter should also be considered in the FEIS because the Commission proceeding does not provide the broad public review and comment required by NEPA. We disagree. Our final decision will address this issue in detail, based on the record in the proceeding. All interested parties have had an opportunity to contribute to that record, and our decision will therefore be based on full information. This procedure fully comports with the letter and spirit

federal courts of appeals have consistently upheld the NRC's practice of supplementing environmental impact statements through the adjudicatory process.<sup>123</sup> Accordingly, for the reasons described above, we conclude that the FSEIS will be "deemed supplemented" by the Board's decision in this proceeding and by any subsequent Commission decision.

10.260. After consideration of all relevant evidence in the record, the Board finds that, contrary to the claims in Contention CW-EC-3A, the NRC Staff and the Applicant have met their burden of demonstrating that the Applicant's EJ analysis in the ER and the NRC Staff's EJ analysis in the FSEIS are adequate under NEPA. We conclude, therefore, as a matter of law, that the Staff and Applicant have complied with NEPA and the Commission's regulations at 10 C.F.R. Part 51, with respect to the matters raised in Contention CW-EC-3A. The Staff's FSEIS is deemed supplemented by this decision.

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of NEPA.") (citing *Aberdeen & Rockfish R.R. v. SCRAP*, 422 U.S. 289, 320-21 (1975); *Citizens For Safe Power, Inc. v. NRC*, 582 F.2d 87 (1st Cir. 1978)).

<sup>123</sup> Entergy PF ¶ 87, citing *Citizens for Safe Power, Inc. v. NRC*, 524 F.2d 1291, 1294 n. 5 (D.C. Cir. 1975) (holding that the "deemed modified" principle did not depart "from either the letter or the spirit" of NEPA); *Ecology Action v. AEC*, 492 F.2d 998, 1001-02 (2nd Cir. 1974) (omissions from an FEIS can be cured by subsequent consideration of the issue in an agency hearing); *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 94 (1st Cir. 1978) (having "no trouble finding" that the NRC's supplementation process satisfies NEPA). See also *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-78-1, 7 NRC 1 (1978). Although the Appeal Board in *Limerick* noted that federal courts of appeals approved the procedure set forth in former section 51.52(b)(3), providing for the amendment of an environmental statement through the adjudicatory process, the Appeal Board clarified that "[t]here is no reason to believe that the courts would not be just as approving of the same procedure today, either as embodied in section 51.102 or, indeed, in the absence of any regulation, as a matter of board practice." *Limerick*, ALAB-819, 22 NRC at 705-07.

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Respectfully submitted,

**/Signed (electronically) by/**

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Dated at Rockville, Maryland  
this 3rd day of May 2013

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S REPLY FINDINGS OF FACT AND CONCLUSIONS OF LAW ON CONTENTION CW-EC-3A (ENVIRONMENTAL JUSTICE)," dated May 3, 2013, have been served upon the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 3<sup>rd</sup> day of May, 2013.

**/Signed (electronically) by/**

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