

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Lawrence G. McDade, Chairman
Dr. Kaye D. Lathrop
Dr. Richard E. Wardwell

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| 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) |) | | |
| |) | Date: | June 28, 2012 |

HUDSON RIVER SLOOP CLEARWATER, INC.
REBUTTAL STATEMENT SUPPORTING CONTENTION EC-3A REGARDING
ENVIRONMENTAL JUSTICE

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I. Clearwater's Initial Statement of Position Showed that the Staff Failed to Follow Explicit Commission Guidance Regarding the Assessment of Environmental Justice

In response to Clearwater's opening testimony, the Staff and Entergy seek to distract the Board from the important issues, but they do not call into question any of the material facts that Clearwater has established. On the law, neither the Staff nor Entergy offer a convincing refutation of the logic of Clearwater's opening Statement of Position ("SoP"). There is general agreement that the Commission excluded Environmental Justice ("EJ") issues from the generic EIS. Instead, the regulations provide that EJ issues must be dealt with on a site-specific basis. NRC Staff SoP at 6. In turn the Commission has provided guidance on how such assessments must be carried out. *Id.* at 5. Clearwater's opening testimony and statement of position showed multiple failures of the Staff to carry out the Commission's guidance. Clearwater SoP at 19-25. In response, the Staff attempts to suggest that it has no need to look at site-specific EJ impacts of a severe accident either because the NRC has found generically that the impacts of severe accidents to be small, or because such issues raise concerns about emergency planning. NRC SoP at 14-16. Entergy raises similar claims, *e.g.* Entergy SoP at 17-18; 32-39, but also attempts to imply that no assessment of the EJ effects of severe accidents is needed because the possibility of such an accident is too remote. *Id.* at 12.

These arguments are not only incorrect, they are also immaterial. The most glaring flaw in the Staff's EJ analysis is that after it obtained the nominal locations of the EJ populations, it did nothing to determine whether there was anything unusual about those populations. NRC SoP at 12-13. This is despite specific Commission guidance requiring detailed assessment of the locations that result from the initial screening analysis. Clearwater SoP at 17. According to the Commission, that next step includes "considering factors peculiar to those communities." *Id.* at 9. For example, for the EJ populations inside prisons, the peculiar factor is that the population is

incarcerated. This factor should not have been hard to identify, indeed, it is somewhat surprising that the standard EJ analysis for nuclear power plants does not already require screening for various types of institutionalized EJ populations. The Staff does not claim it identified this peculiar factor but decided it was not important, instead the Staff tacitly admits that it failed to identify *any* factors that are peculiar to *any* identified EJ population. Notably Entergy completely omits the specific requirement to identify peculiar factors from its summary of the Commission guidance on EJ assessment. Entergy SoP at 16; 30-32. Perhaps this is because Entergy cannot conceive of how else to defend the Staff's failure to follow explicit Commission directives.

Having failed to identify peculiar factors, it is not surprising that the Staff concluded the impacts on the EJ populations would be same as on the general population. Now, instead of candidly admitting its mistake, the Staff is seeking to argue against the clear directives of the Commission contained in the EJ policy statement and the case law laid out in Clearwater's SoP. Clearwater questions whether this is appropriate, but even if it is, this Board cannot disregard the Commission. Therefore, this Board need not adjudicate any facts or novel legal issues to find that Clearwater has prevailed on its contention. The issue remaining for adjudication is how much further assessment of EJ the Staff would need to do after remand to satisfy NEPA.

On this issue, Clearwater's SoP anticipated the primary legal argument made by Staff and Entergy that assessing the consequences and mitigation of a severe accident is out of scope during relicensing and showed it is without merit for multiple reasons. First, the Board has allowed the EJ contention to proceed, despite multiple similar attempts by the Staff and Entergy to oppose it on similar grounds. Clearwater SoP at 4-6. Second, Clearwater showed that controlling case law requires the Staff to assess the consequences of severe accidents for NEPA

purposes. *Id.* at 15. Although the Commission could have attempted to assess EJ impacts generically, it chose not to do. *Id.* at 18. Therefore *all* EJ impacts, including those resulting from severe accidents, must be analyzed on a site-specific basis. *Id.* Part of the required NEPA analysis for site-specific issues is mitigation. *Id.* at 15-16.

One of the most telling logical flaws in the Staff's assessment is that it fails to compare the proposed action with the no-action alternative. For example, the Staff's position is that the proposed action (relicensing the Indian Point reactors) would cause "no additional (. . .) effect (...) on minority and low income populations (. . .) beyond what is currently being experienced." NRC SoP at 11. That is manifestly incorrect. The effect of extending the life of the Indian Point reactors for 20 years would be to impose 20 *more* years of operational risks upon the EJ population surrounding the plant. The purpose of the EJ assessment is to first assess the additional impacts and then determine whether they can be mitigated. The Staff appears to have been blinded by its inability to conceive of any potential significant impacts that could result from the EJ assessment. It therefore went through the motions of applying a generic approach that simply attempted to identify the locations of the EJ populations, but nothing else. It then decided that because there is nothing special about those locations, there could be no disproportionate impact. This circular logic tells us nothing about EJ impacts, but much about the Staff's failure to comprehend its NEPA duties.

II. This Rebuttal Shows that NRC and Entergy's Testimony Confirmed that the EJ Analysis was Inadequate

This reply to the Staff and Entergy does not repeat the arguments made in Clearwater's SoP and opening testimony.¹ Instead, it shows step by step how the required EJ assessment should be done and refutes the erroneous factual and legal arguments made by the Staff and

¹ Any failure by Clearwater to address an argument in this filing should be interpreted as an understanding that the argument is already fully addressed by the initial SoP, not as a waiver of that argument.

Entergy that were not fully discussed in the SoP. For instance, this reply shows that the Staff's reliance on shelter-in-place to mitigate impacts on "special" populations is flawed for multiple reasons, including: the Staff failed to even read the plans that call for such sheltering; the Staff failed to assess on a site-specific basis whether the buildings housing the special populations are suitable for sheltering; many of the buildings are not actually suitable for sheltering; and people who do not own private cars will be directed to leave shelters to go wait for buses at the side of the road. Furthermore, the Staff's testimony shows that it gave no consideration to evacuation plans during the EJ assessment and that even now it has not seen the evacuation plan for the prison population. Instead, it has relied upon a single phone call that it made after the FSEIS was complete. Contrary to the bland assurances offered in the FSEIS, the Staff also admits that prisoners in Sing-Sing could be exposed to more radiation than the general population.

In a self-congratulatory presentation an NRC staff member explained that its EJ analysis has improved markedly since it failed to adequately assess the EJ impact of a facility proposed by Louisiana Energy Services ("LES"). However, the analysis at Indian Point suffers from precisely the same failures as the assessment at LES and is not of the "new-improved" standard trumpeted in the presentation. Finally, the Fukushima disaster has given rise to harrowing stories of severe hardship and fatalities among hospital patients, the elderly, and the sick. It hardly need be said that death from chronic disease, lack of water, extremes of temperature, or stress from the evacuation, cannot be dismissed as a psychological impact. Thus, instead of informing the public and the agency about the EJ consequences of the proposed action and how they could be mitigated, the Staff has offered bland, but erroneous, assurances that will be cold comfort if an accident like the Fukushima disaster happens at Indian Point. This Board should therefore direct

the Staff to carry out a thorough EJ analysis that determines how the existing situation could be improved if the Indian Point reactors are granted a 20 year life extension.

III. The FSEIS Failed to Identify Environmental Justice Communities and Factors Peculiar to These Communities

According to the NRC's Environmental Justice Policy Statement and subsequent case law, environmental justice reviews comprise two major steps: (1) identifying minority and low-income populations that the proposed action could potentially impact; and (2) disclosing any disproportionately high and adverse impacts to these particular populations that, *due to the population's unique characteristics*, may differ from the impacts to the general population.² The first step involves identifying minority and low-income populations that the proposed action could potentially impact, with the recognition that "numeric criteria are guidance – a starting point – for staff to use when defining the geographic area for assessment" and that NRC staff analysis should also include "the identification of EJ concerns during the scoping process." NRC EJ Policy Statement, 69 Fed. Reg. at 52046. The purpose of an environmental justice analysis, according *In Re Matter of Louisiana Energy Services*, 47 N.R.C. 77 (1998) [hereinafter *Claiborne II*], "is to identify and adequately weigh, or mitigate, effects on low-income and minority communities *that become apparent only by considering factors peculiar to those communities.*" *Claiborne II*, 47 N.R.C. at 100 (emphasis added). *In Re Matter of Private Fuel Storage, L.L.C.*, 56 N.R.C. 147 (2002) [hereinafter *Private Fuel Storage*], underscores the importance of this inquiry into a community's specific characteristics, noting that "[e]nvironmental justice, as applied at the NRC, ... means that the agency will make an effort under NEPA to become aware of the demographic and economic circumstances of local

² NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,041-42 (2004) (emphasis added); *In re Southern Operating Company*, 65 N.R.C. 237, 262 (2007).

communities where nuclear facilities are to be sited, and take care to *mitigate or avoid special impacts attributable to the special character of the community.*” *Private Fuel Storage*, 56 N.R.C. at 156.

The standards presented in these cases show clearly that an essential part of properly completing step one, identifying environmental justice populations, involves taking into consideration the specific characteristics that would make the local minority or low-income population vulnerable to disparate impacts. Only then can one attempt step two, identifying the disproportionately high and adverse effects that the community is vulnerable to because of those specific characteristics. Despite Entergy and the NRC’s weak protestations to the contrary, their environmental justice reviews are wholly inadequate because they do not identify potentially affected low-income and minority communities with the requisite attention to their particular characteristics in the first step, and they fail even to attempt the second step. In addition, the NRC’s own documentation of its environmental justice analyses for other sites shows just how inadequate its assessment was in this case.

A. Environmental Reviews Are Incomplete if They Fail to Examine Factors Peculiar to the Local Community that Make Them Subject to Disparate Adverse Impacts.

The NRC’s environmental justice analysis is utterly inadequate because it did not even properly complete the first step of such an assessment: identifying the low-income and minority communities who would potentially face disparately adverse environmental impacts by due to an accident Indian Point. In contrast to the example provided by the *Claiborne II* case, both Entergy and the NRC inaccurately claim that they do not have to investigate the specific features of potential environmental justice features.

According to *Claiborne II*, the seminal NRC decision on environmental justice, “[t]he NRC’s goal is to identify and adequately weigh, or mitigate, effects on low-income and minority

communities *that become apparent only by considering factors peculiar to those communities.*” *Claiborne II*, 47 N.R.C. at 100 (emphasis added). This standard makes clear that the only way for the NRC to properly assess the environmental justice effects on local communities of minority and low-income people is by looking closely at the peculiar characteristics of the communities that will make any adverse environmental effects disproportionately difficult for them.

In *Claiborne II*, Louisiana Energy Services, L.P. (“LES”) sought to build a uranium-enrichment facility on a site in Claiborne Parish, Louisiana that was immediately adjacent to and between two African-American communities. Citizens Against Nuclear Trash (“CANT”) intervened in the proceedings of the NRC, alleging, among other things, that LES’s Environmental Report did not adequately address the environmental justice concerns of the surrounding communities, which were 97% African-American and were two of the poorest and most disadvantaged communities in the United States.

Building this facility, the Claiborne Enrichment Center (“CEC”) would likely have required a relocation of Parish Road 39, which was a major link between the two communities surrounding the proposed site. The record showed that relocating the road would be a minor inconvenience for drivers, but would pose a significant burden for pedestrians. In its review, the Commission agreed that the FEIS did not adequately address the CEC’s disparate impacts of relocating Parish Road 39 because it only examined the impact of the relocation on drivers. In coming to this conclusion, it looked at the specific characteristics of the particular minority and low-income communities surrounding the proposed site; many members of the highly impoverished communities had no means of transportation other than walking, and adding an extra .38 mile to the commute each way would be especially difficult for the elderly and infirm

local residents. Without recognizing that low car ownership was a factor in this community, the environmental analysis for LES was unable adequately to identify or weigh the disparate impacts that would have been caused by building the CEC on the local low-income and minority populations.

In contrast to the clear standard presented by *Claiborne II*, the NRC has failed to do any such specific examination of the EJ communities around Indian Point. While Entergy admits that environmental justice reviews require two main steps, it only outlines its cursory attempts to identify low-income and minority populations in the area surrounding Indian Point. In direct contradiction to the requirements of *Claiborne II*, Entergy claims that the NRC did not need to focus on specific characteristics of the environmental justice populations it identified.

Entergy claims that the use of U.S. Census Block Group data sufficed, because “[i]mplicit in the focus on *populations* is an understanding that the process does not require that NRC identify individual facilities or individuals in specific facilities.” Entergy SOP at 16 (emphasis in original). However, the use of Census Block Group data without any further analysis precludes the NRC from identifying particular characteristics – such as incarceration status, physical and mental disabilities, and lack of transportation options – of the relevant populations that would make them vulnerable to disproportionately high and adverse environmental effects. Thus, the NRC failed to fulfill the main requirement of the first step in the analysis: looking at the specific characteristics of the relevant population that could give rise to disparate impacts. Ignoring the question of the factors peculiar to an environmental justice community that would cause it to experience disparately adverse effects renders the NRC’s analysis inadequate on its face.

This is a major issue because there are over 6 million people within 50 miles of Indian Point that New York classifies as within potential EJ areas. CLE000031. Kelly McKinney, New York City's deputy commissioner of preparedness stated on June 2012 that attempting to evacuate large areas of New York City would be an “enormous challenge” and a historic feat, said. “At no time in the history of man,” he said, “has anyone tried to move 17 million people in 48 hours.”³ Blithely assuming, without study, that none of these 6 million people have issues that would make their evacuation more difficult such as less access to transport, disability, and ill health, as the NRC Staff has done here, is an astonishing exercise in bureaucratic wishful thinking.

The NRC’s failure to identify important EJ sub-populations, such as members of racial minorities who are incarcerated near Indian Point, is particularly egregious in the case of Sing Sing, a correctional facility that is a census block unto itself, where 87% of its 1700 prisoners are members of racial minorities. Ex. CLE012 at 12. By using Census Block Group data alone and neglecting to follow up with a more detailed analysis that would reveal the specific characteristics of EJ sub-populations, the NRC has made its FSEIS analysis circular. Based upon an assumption that the EJ population has no distinguishing characteristics except for racial status and low income, it concludes that no disparate impact would occur. The problem is that the NRC did not check its assumption. In the case of prisoners at Sing-Sing and those who would have to wait at bus stops outside during an emergency, there is no longer any dispute that this assumption has been shown to be false. Therefore the FSEIS EJ analysis is fatally flawed.

In arguing that “minority and low-income populations in Sing Sing are considered in the FSEIS” and “no member of a minority and low-income population was excluded from

³ Daily Mail, An accident waiting to happen? Populations around U.S. nuclear plants have grown 450% since 1980, CLE000056.

consideration in the FSEIS environmental justice assessment,” the NRC attempts to create a straw man. NRC Staff SOP at 14. The question is not whether minority or low-income prisoners or people with limited mobility were excluded from the general identified population; the question is whether the particular characteristics of the community around Indian Point have been identified and evaluated in the environmental justice assessment. It is patently absurd to lump together incarcerated or disabled minority and low-income people with populations who do not live with those particular restrictions and claim that the concerns of the former have been addressed. Indeed, the fact that Sing Sing is designated as a “special facility” in the Westchester County Emergency Plan indicates that inmates within the facility, many of whom are racial minorities, could experience impacts that are quite different from the general population. Ex. CLE000003 at A8 & A11; Ex. CLE000012 at 4-5. Ignoring these particular factors by saying that these minority inmates are generally included within the environmental justice assessment makes the analysis inadequate.

Although the failure to recognize the specific features of the minority population within Sing Sing is the most blatant example of the NRC’s inadequate analysis, the use of the Census Block Group data fails in other ways as well. For example, the population of Rockland County Jail is 60 to 70% minority. CLE000003 at A16. In addition, many people in nursing homes are reliant on social security and therefore have a low income. CLE000010 at A55. A significant portion of the nursing home population is also mobility impaired for either mental or physical reasons. CLE000006 at A6. Homeless shelters and Section 8 housing house low-income individuals. CLE000036 & CLE000037. Minority and low-income residents are highly dependent on public-transport. CLE000007 at A12; CLE000008 at A16. Hospitals contain a number of patients who are mobility impaired. CLE000005 at A7.

Similarly, although the FSEIS provides a map of low-income areas, FSEIS at A-55, it makes no attempt to identify characteristics peculiar to these communities, such as a lower level of private vehicle ownership. *Id* at A-5-53; CLE000007 at A12. Thus, the FSEIS has failed to adequately identify the unique characteristics of the EJ populations that are present in the 50 mile radius of Indian Point.

This failure to even properly identify factors specific to EJ communities shows that the NRC cannot support its finding that there are no disparate impacts to minority or low-income populations. The NRC must be required to conduct a proper assessment that goes beyond Census Block group data and identifies the specific factors that make the surrounding environmental justice communities subject to a disparate negative impact before its analysis may be considered adequate.

B. At Other Sites the NRC Staff Has Carried Out the EJ Analysis More Thoroughly

Despite the NRC's attempts to argue that it conducted a thorough environmental justice analysis in this case, looking at its own documentation of a similar analysis in another case reveals just how cursory and facile its review here really was. In a 2012 presentation entitled *Environmental Justice and the NRC: A Progression to Excellence*, the NRC discussed its view of environmental justice analyses, noting that "[a]nyone without full access to, or protection from, the decision making process is conceivably an environmental justice constituent" and that it is important to look for the "less obvious" constituents, like the elderly, those on fixed incomes, and those with special needs. CLE000051 at 4. As Ms. Greene shows in her rebuttal testimony, Entergy's assertions about the narrowness of scope of EJ assessments are incorrect. CLE000046 at A3.

Going a step further, the NRC sought to show how closely it hewed to the standard set by *Claiborne II*, including highlighting the need to examine “factors peculiar to [the] communities.” *Id.* at 8. To that end, the NRC discussed its process in assessing South Carolina Electric & Gas’s application to build the VC Summer Nuclear Station in Fairfield County, South Carolina. *Id.* at 9-20; *see also* CLE000047 at A.9. According to the NRC’s own account, the use of Census Block Group data was insufficient in the VC Summer case; while it revealed a large number of African-American census block groups near the plant, it failed to identify any low-income populations of note in the vicinity of the plant. *Id.* at 12. However, commentary at the scoping meeting showed the NRC that a newly incorporated community named Jenkinsville, which was the closest community to the proposed plant site and most of whose population was below the poverty line and unemployed, had been overlooked. *Id.* at 16-17. In sharp contrast to the situation at Indian Point, the NRC’s “hard look” in the VC Summer situation involved recognizing the particular features of the community, including that many members of the community were unable to participate in the formal meetings, despite being seriously concerned about the plant. *Id.* at 17. In addition, most of the population walked as a primary means of transportation, making increased traffic on the roads that led to the site – narrow two-lane roads with little or no shoulder – very burdensome on them. *Id.*

The NRC tailored specific mitigation responses to the particular challenges faced by this community, including holding more informal meetings to receive comments from the local community and allowing commentators to have their comment personally transcribed by NRC staff. *Id.* at 18. In addition, South Carolina Electric & Gas committed itself to traffic impact mitigation in response to concerns about pedestrians. *Id.* at 19. While the NRC holds up the VC Summer Nuclear Station situation as an environmental justice success story, this case also serves

to show just how ineffective the NRC's environmental justice analysis was for the Indian Point plant. The NRC has proven that it knows how to conduct a proper environmental justice assessment – it simply failed to do so in this case.

IV. Second Step in Assessment is to Predict Impact Taking Account of the Peculiar Factors

Having failed to identify any EJ communities with any peculiar factors in the first step, the NRC Staff could not even attempt the second step of the analysis, which is to determine whether those peculiar factors give rise to disparate impacts. The Fukushima disaster and experience in non-nuclear disasters shows that disparate impacts are in fact widespread and severe. To avoid these obvious conclusions, the NRC and Entergy attempt a logical sleight of hand by suggesting that EJ impacts cannot be significant if impacts on the general population are SMALL. This shows once more that in this case the Staff failed to understand that the specific purpose of the EJ analysis is to identify differences between the general population and the EJ populations that could give rise to disparate impact on the EJ population. Moreover, the Fukushima disaster caused the death of hundreds of elderly and sick people, while the impacts on the general population were less severe.

A. The Fukushima Disaster Illustrates What Type of Impacts May Occur

The Fukushima disaster tragically confirms that the most vulnerable populations suffer most in an emergency situation. CLE000047 at A.11. This was already obvious to all but the NRC Staff after the Katrina disaster. A few examples from Fukushima suffice to show that a nuclear emergency at Indian Point would be likely to cause serious disparate impacts. In one hospital three miles from Fukushima, 25 of the 435 patients died during the evacuation or at transit centers. *Id.* In addition, elderly patients were left in freezing conditions and there was inadequate provision for medical treatment at evacuation centers. *Id.* The disaster also

confirmed that shelter-in-place does not work beyond a few hours, because people run out of food and water rapidly. CLE000050 at 7.

Newspaper articles sum up the grim realities of the situation. “Nuke evacuation fatal for old, sick” encapsulates in a nutshell that at Fukushima members of EJ populations died as a result of the accident, while healthy people with their own transportation were not as badly affected. CLE000054. The article shows that at one home for the elderly, the home's 96 residents were evacuated as they ran out of medicine and faced starvation. *Id.* One of them died on the bus, and two others fell seriously ill. *Id.* Another article states “Japanese earthquake takes heavy toll on ageing population.” CLE000052. Dozens of elderly people were confirmed dead in hospitals and residential homes as heating fuel and medicine ran out. *Id.* In one incident, Japan's self-defense force discovered 128 elderly people abandoned by medical staff at a hospital six miles from the Fukushima nuclear plant. Most of them were comatose and 14 died shortly afterwards. *Id.* Another article states that “botched efforts to evacuate patients from area hospitals [close to Fukushima] lead to a number of deaths. CLE000053. By February 2012, 573 deaths had been certified as related to the Fukushima disaster. CLE000055. Notably, these deaths were not caused by radiation exposure, but by fatigue or aggravation of a chronic disease. *Id.* EJ populations, such as the elderly, the disabled, and the infirm, are most susceptible to such effects.

These facts show starkly that the conclusion in the FSEIS that EJ populations are not subject to disparate impact is erroneous. It is not enough to conduct a blinkered, generic, cookie-cutter assessment that, in addition to ignoring the vulnerability of the many EJ populations, also ignores one of the foreseeable consequences of extending the life of a reactor, a severe accident.

At some point, the NRC must once again embrace the reality that accidents happen and the environmental analysis must take account of their disparate effect on EJ populations.

B. The Generic Finding of SMALL Impacts for a Severe Accident is Irrelevant

Entergy asserts that because the generic EIS found no significant risk from continued operation of *all* nuclear plants, no environmental justice population near Indian Point will experience significant and disproportionate harm from its relicensing. Entergy SoP at 3-4. Entergy claims that because a generic SMALL risk conclusion applies to the entire population, this inherently includes and applies to the environmental justice populations contained therein; therefore, any included environmental justice group cannot suffer significant and adverse disproportionate impacts when the risk is SMALL. *Id. See also* NRC SoP at 15-16 (“[T]he Commission has generically determined that the probability weighted impact risks associated with severe accidents are small. Therefore, there is no disproportionately high or adverse impact on minority or low-income populations.” (internal citations omitted)). This position is fallacious, and its adoption would fail to satisfy NEPA obligations.

Entergy itself readily admits that an environmental justice review under NEPA requires “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.*” Entergy SoP at 16 (citing NRC Environmental Justice Policy Statement, 69 Fed. Reg. at 52,047; LIC-203, Rev. 1, Procedural Guidelines for Preparing Environmental Assessments and Considering Environmental Issues (May 24, 2004) (ENT000261)). However, Entergy also argues that conducting site-specific review of the particularized impacts on identified environmental justice populations is unnecessarily duplicative, due to tiering and incorporation by reference, and thus not required. *Id.* at 17 (citing Executive Order 12898, Fed. Reg. at 7631 (ENT000259); 10 C.F.R. Pt. 51, Subpt. A, App. A§ 1(b)). While it is true that

tiering and incorporation by reference are permissible in an environmental impact statement, tiering is essentially summarization, designed “to eliminate repetitive discussion of the same issues.” 40 C.F.R. § 1502.20. Tiering does not “fill the gaps” in a prior EIS, and even where appropriate, has no impact of the level and content of analysis required by NEPA. *See, e.g., Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800 (9th Cir. 1999). Incorporation by reference is designed to “cut down on bulk without impeding agency and public review of the action.” 40 C.F.R. § 1502.21.

Both tiering and incorporation by reference are purely mechanisms for administrative convenience, not justifications for or methodology to evade the required environmental justice analysis. A GEIS determination of risk are not duplicated, summarized, or even referenced by the required site- and population-specific analysis of *disproportionate* impacts resulting from specific factors that are not shared by the general population, which were admittedly not examined in the GEIS. *See* NRC SoP at 6; Entergy SoP at 17. Relying on the generic analysis is therefore not an appropriate environmental justice analysis and does not satisfy NEPA. *See In re Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site)*, 66 N.R.C. 215, 243-47 (2007) (noting that cursory regurgitation of prior EIS findings in lieu of detailed environmental justice analysis is not justified as a “concise presentation,” but upholding staff review on other grounds).

NEPA plainly requires a thorough examination of disproportionate and adverse impacts to identified environmental justice populations. The prior determination of SMALL risk in the GEIS does not even come close to relieving the NRC of these NEPA obligations in relicensing proceedings. Further investigation of disproportionate harm to environmental justice populations is still required.

C. The Identified Disparate Impacts to Prisoners Cannot Be Excluded As Purely Psychological

Entergy's attempts to discredit Clearwater's contention that the FSEIS must assess the disparately negative impact that radiation release would have on the inmates of Sing-Sing (and other correctional institutions) have little basis in law or in fact. The assertion that these were purely psychological impacts has already been rejected by the Board when it decided not to strike any of Clearwater's testimony. In the Matter of Entergy Nuclear Operations (Indian Point Nuclear Generating Units 2 and 3), ASLBP No. 07-858-03-LR-BD01, 33-35 (2011). Despite this Board ruling, Entergy continues to claim that any such effects are psychological impacts that are outside the scope of NEPA under *Metropolitan Edison*. However, Entergy's argument is an inappropriate extension of *Metropolitan Edison*'s "reasonably close causal relationship" standard, because the impacts at issue in that case assumed no release of radiation, whereas the environmental justice impacts at issue in this case assume an actual radiation release. Second, Entergy attempts to use *Public Citizen* for the proposition that Clearwater's arguments are too attenuated to pass *Metropolitan Edison*'s "reasonably close causal relationship" test. Again, however, this case is easily distinguished on its facts, because here NRC has the power completely to prevent impacts on environmental justice populations from severe accidents by refusing to grant the new license to Entergy.

In *Metropolitan Edison*, the Supreme Court established that an agency must evaluate the environmental impact of a proposed action when there exists "a reasonably close causal relationship between a change in the physical environment and the effect at issue." *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 767 (1983). While conceding this standard, Entergy inappropriately extends the reach of *Metropolitan Edison* into this case by bringing in the court's finding that "fear arising from the "risk" of a nuclear accident was not an

effect caused by a change in the physical environment and, thus, did not warrant consideration under NEPA.” (Entergy MIL at 10.) In *Metropolitan Edison*, residents who lived near a group of nuclear power plants objected to restarting a power plant that had been shut down for refueling when another nearby plant suffered a serious accident. The plaintiffs claimed that the NRC improperly failed to consider whether the psychological health of the nearby community residents might be endangered by the risk of an accident at the plant, but the court found that the NRC was required to do no such assessment.

While *Metropolitan Edison*’s standard of a “reasonably close causal relationship” is applicable to all cases under NEPA, its particular holding is based on facts that diverge sharply from those in the issue at hand. The court in *Metropolitan Edison* noted that there was ‘no reasonably close causal relationship between a change in the physical environment and the effect at issue’ because the “risk” of an accident does not constitute a change in the environment. Therefore, “the element of risk lengthens the causal chain beyond the reach of NEPA,” and the NRC did not need to consider it. *Metro. Edison*, 460 U.S. at 775. In addition, the court found that the “reasonably close causal relationship” standard was not met because the harm alleged was psychological in nature, and therefore outside the scope of what an agency would be asked to investigate under NEPA. *Id.* at 776.

By contrast, Clearwater’s contention displays a much closer causal connection than that in *Metropolitan Edison*. For example, it contends that the NRC must consider the disproportionate physical harm that would befall inmates and corrections officers in such institutions in the event of an actual radiation release, which is a change in the physical environment. As Dr. Edelstein’s initial testimony shows, this change in the physical environment would induce extreme fear and anxiety within the prison, which could in turn lead

to violence and physical harm to both prison officers and inmates. The close causal connection of the physical harm to the radiation release, which is a foreseeable physical consequence of the proposed action, means that this impact must be considered in the NEPA analysis.

Entergy also attempts to break the close causal relationship between the release of radiation from the Indian Point nuclear plant and the disproportionate physical harm that could befall prisoners at Sing-Sing and other correctional institutions, by misconstruing the case of *Public Citizen*⁴. It suggests that Entergy or NRC's lack of statutory authority over prisons, and other institutions, excuses a failure to examine the impacts upon EJ populations within those institutions. (Entergy MIL at 12-13.) The only support it offers for this proposition is *Public Citizen*, but that case merely shows that Entergy's argument is wrong. Moreover, if Entergy's proposition were true, NEPA's scope would be ludicrously narrow. Most of the impacts assessed in most environmental impact statements affect resources outside of the direct control of the agency authorizing the activity. For example, although FERC licenses dams, it does not directly have regulatory responsibility for the water quality of rivers. This lack of direct authority does not mean that the impacts upon water quality need not be assessed when FERC licenses a dam; such a result would be patently unreasonable.

In *Public Citizen*, the Federal Motor Carrier Safety Administration (FMCSA) was required to promulgate regulations (as well as conduct an environmental assessment) in response to the President's lifting a ban on Mexican trucks coming into the United States. The plaintiffs claimed that the FMCSA should have conducted an environmental impact assessment – as opposed to the less stringent 'environmental assessment' that it actually conducted – because of the close connection between the promulgation of the regulations and the entry of more Mexican

⁴ Dep't of Transp. v. Public Citizen, 541 U.S. 752 (2004).

trucks into the United States. The court found that the FMCSA did not need to conduct the more stringent study because it did not have the statutory authority to countermand the President's order and prevent the Mexican trucks from entering the United States. Entergy attempts to use this holding to imply that the NRC's lack of statutory authority over prisons breaks the causal chain that would require the Board to examine the impact of a change in the physical environment on prisoners, but its arguments misconstrue the case and gloss over the critical facts at issue.

As Entergy has noted, the *Public Citizen* court claimed that, "where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant "cause" of the effect." Public Citizen, 541 U.S. 752 at 770 (quoted in Entergy MIL at 10-11). However, Entergy glosses over a "critical feature" of this holding, namely that the agency had "*no ability* to countermand the President's lifting of the moratorium or otherwise categorically to exclude Mexican motor carriers from operating within the United States." Id. at 766 (emphasis added). Unlike the FMCSA – which had no authority to change the situation, whatever the results of its environmental study – the NRC here does have the ability to prevent disproportionate physical harm to prison inmates at Sing-Sing and other correctional institutions in the case of a nuclear accident, simply by refusing to grant the requested licenses to allow extended operation. The NRC's lack of statutory authority over prisons and other facilities does not have the chain-breaking effect of excusing it from examining impacts at these facilities, as Entergy incorrectly implies, because the NRC still has the power to prevent the ultimate result, contrary to the case in *Public Citizen*.

A more appropriate interpretation of *Metropolitan Edison's* "reasonably close causal relationship" standard can be found in *Sierra Club v. Mainella*, 459 F. Supp. 2d 76, 94 (D.D.C.

2006). In *Sierra Club*, one allegation from environmental groups was that the National Park Service (NPS) should have considered the effects of surface drilling activities adjacent to a National Preserve before permitting directional oil and gas drilling operations under the National Preserve. In this case, the court did not accept an appeal to *Public Citizen* from the agency, noting that

The holding in *Public Citizen* extends only to those situations where an agency has “no ability” because of lack of “statutory authority” to address the impact. NPS, in contrast, is only constrained by *its own regulation* from considering impacts on the Preserve from adjacent surface activities ... it makes sense for NPS to assess the impacts from surface activities because there is a reasonably close causal relationship between such impacts and NPS's decision to grant an operator access to oil and gas beneath the Preserve.

Sierra Club. 459 F. Supp. 2d at 105 (emphasis in original).

Similarly, in this situation, despite its lack of statutory authority over prisons, the close causal relationship between re-licensing the plant and disproportionately harmful effects on prisoners in Sing-Sing and other institutionalized EJ populations means that the FSEIS must include an assessment of the potential harm to this population in its EIS.

Finally, Entergy's attempt to create straw men out of psychological impact and statutory authority arguments should not obscure the real issues at hand. The prisoners at Sing-Sing and other correctional institutions would be disproportionately and detrimentally impacted in the event of a nuclear accident, not only due to radiation exposure, but also because of the dangerous and possibly uncontrollable social conditions such an event could engender inside the prison. The causal relationship between the event, a severe accident, and its effect, harm to prisoners, is extremely close and includes the release of radiation, a physical effect.

V. Third Step in Assessment is to Consider Mitigation and Feasible Alternatives

A. NRC failed to conduct an independent assessment of the existing emergency plans in drafting the FSEIS and did not take the “hard look” required under NEPA

NEPA requires that the NRC make an “independent assessment” of the environmental impacts of relicensing Indian Point. *Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2)*, LBP-09-10 (Feb. 2, 2011) (slip op. at 18-19) (citing *Louisiana Energy Srvs., L.P. (National Enrichment Facility)*, LBP-06-8, 63 NRC 241, 259 (2006) (internal citations omitted)). In drafting an EIS, the NRC is entitled to rely on “data, analyses, or reports prepared by . . . competent and responsible state authorities,” but only if the NRC conducts an independent evaluation of the external information on which it relies. *Id.* at 18. NEPA does not require the NRC to duplicate a “current and sound environmental analysis” conducted by another agency, but it does require the NRC to find such external sources “relevant” and “scientifically reasonable” through its own independent evaluation and take responsibility for the information contained therein. *Id.* at 18-19; *Louisiana Energy Srvs., L.P. (National Enrichment Facility)*, LBP-06-8, 63 NRC 241, 259 (2006); 10 C.F.R. § 51.70(b). *See Calvert Cliffs’ Coordinating Committee, Inc. v. AEC*, 449 F.2d 1109, 1116 (D.C. Cir. 1971) (“[T]he Commission’s regulatory staff must take the applicant’s report and prepare *its own* ‘detailed statement’ of environmental costs, benefits and alternatives” (emphasis added)).

It is the NRC’s contention that the environmental justice analysis conducted by its staff adequately meets the “hard look” standard under NEPA, and sufficiently addresses environmental impacts of license renewal on minority and low-income populations near Indian Point. NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 10. But the NRC’s NEPA obligations are not satisfied by conclusory statements about the existence and adequacy of other entities’ emergency plans. *See Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2)*,

LBP-09-10 (Feb. 2, 2011) (slip op. at 6-7, 18-19). Relying too heavily on externally produced information can be and is fatal to the EIS. *See id.* at 19.

As part of its argument that the existing emergency plans are adequate for environmental justice populations, the NRC explains that FEMA has the primary responsibility in evaluating offsite emergency plans, while the NRC retains statutory authority to make final licensing decisions. NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 17. The NRC conclusorily states that the plans for Indian Point are adequate because they “are developed and implemented to provide adequate protection to all populations . . . around nuclear power plants,” are periodically updated to respond to new threats like terrorist attacks, and are “flexible enough to respond to a wide variety of adverse conditions.” NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 17-18. While NRC succeeds in conveying a resounding endorsement of the general emergency preparedness process jointly overseen by the NRC and FEMA, it fails to explain with any specificity why the particular emergency preparedness plans for Indian Point and its surrounding communities and facilities are adequate at all, much less for the relevant environmental justice populations. Stating that the plan drafting and evaluation processes “provide reasonable assurance that an acceptable level of emergency preparedness exists” does not address the adequacy of any particular emergency plan, and does not satisfy the hard look and independent analysis required by NEPA. NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 18 (quoting 56 Fed. Reg. 64,943, 64,967 (Dec. 13, 1991) (Ex. ENT000270)).

For example, with regard to emergency plans for the environmental justice population housed at Sing Sing, the NRC states that the New York State Department of Correction “*plans to*

provide for the protection of the prison population” (emphasis added), “routinely moves prisoners” within the state, and that the Department is “confident” it can “relocate prisoners from Sing Sing should the need arise.” NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 20. Stating that another agency has responsibility for planning for an environmental justice population, and that the other agency is confident in its ability to do so, does not constitute the required independent analysis of potential disparate impacts at Sing Sing on the part of the NRC and does not satisfy NEPA.

The NRC further argues that emergency planning for Indian Point is sufficient because the NRC has the authority to shut down a nuclear power plant with deficient plans, or undertake other enforcement activities. NRC Staff Initial Statement of Position Regarding Contention CW-EC-3A (Environmental Justice) (March 30, 2012), at 18-19. Once again, this argument is incorrect. The existence of a potential remedy does not prove the sufficiency of the existing emergency plans or demonstrate that the NRC satisfied its NEPA obligations in this case.

B. Shelter-in-Place Is Not A Panacea

Although both the Staff and Entergy attempt to suggest that EJ impacts from an accident would be adequately mitigated by sheltering-in-place, they have done no site-specific analysis of how suitable buildings are for this purpose, whether ventilation systems and window sealing need improvement, the effect of ordering people without private vehicles to wait outside at bus stops, or how quickly the protection offered by shelter-in-place degrades. CLE000047 at A5. Indeed, a case study on a prison that was ordered to shelter-in-place for 12 hours shows that problems were experienced, many of which could have been be mitigated by careful preparation. *Id.* The impacts observed during the Fukushima confirm that sheltering in place is a very time-limited partially protective mitigation measure. *Id.* at A.11.

C. NRC’s has Failed to Examine Potential Mitigation Measures

NEPA not only requires the NRC to identify environmental justice impacts; it further requires the agency to examine potential solutions to reduce these impacts. In arguing that mitigation and alternatives need not be evaluated for Indian Point because the risk of severe accidents is SMALL, the NRC misconstrues the mitigation analysis requirements of NEPA. *See* NRC SoP at 37-38. Consideration of alternatives is the “heart of the environmental impact statement,” and the EIS requires a thorough analysis of alternatives (including mitigation and “no action”), presented in a manner “sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public.” 40 C.F.R. § 1502.14. As discussed above, the generic analysis does not assess EJ impacts at all and provides no basis to conclude they are small. Indeed, the Fukushima and Katrina disasters show that EJ impacts could be highly significant. In any event, the NRC’s position that NEPA does not require *any* consideration of mitigation or alternatives where impacts are SMALL is erroneous. *See* NRC SoP at 38.

The NRC SoP cites *Transmission Access Policy Study Group v. F.E.R.C.*, 225 F.3d 667 (D.C. Cir. 2000) for the proposition that “an agency may decline to *discuss* mitigation measures when it believes the environmental impact of an action may be minor.” NRC SoP at 38. But in that case, the Federal Energy Regulatory Commission was accused of “act[ing] arbitrarily and capriciously by failing to *adopt* measures to mitigate the expected harmful environmental effects.” *Transmission Access Study Policy Group v. F.E.R.C.*, 225 F.3d at 737. The D.C. Circuit held that FERC acted reasonably in declining to adopt mitigation measures under the facts of the case, but only after it “comprehensively analyzed proposed mitigation measures, explaining why it declined to require any.” *Id.* It is impermissible to “rely[] solely on . . . relatively insignificant environmental impacts” and skip the evaluation of alternatives, even if the impacts in the case at hand were as “small” as the NRC and Entergy claim them to be. *See id.*

NEPA requires that the NRC “[r]igorously explore and objectively evaluate all reasonable alternatives” when preparing an EIS. *In re Pa’ina Hawaii, LLC (Materials License Application)*, CLI-10-18, 2010 WL 2753784, at *9 (N.R.C. 2010) (“[C]onsideration of alternatives remains critical to the goals of NEPA.” (quoting *North Idaho Cmty. Action Network v. U.S. Dep’t of Transp.* 545 F.3d 1147, 1153 (9th Cir. 2008))). Staff may be required to consider specific alternatives and mitigation measures (e.g., alternative sites), even when not “universally required” to do so in making an environmental assessment. *Id.* at *13 (holding that an

environmental analysis must include all reasonable alternatives “that also satisf[y] the underlying purpose of the proposed action”). As noted in Clearwater’s initial SoP, lack of ownership of an alternative site does not preclude its consideration.

The NRC’s Statement of Position states “[n]uclear power plant owners, government agencies, and State and local officials work together to create a system for emergency preparedness and response that will serve the public in the unlikely event of an emergency,” NRC SoP at 18, without examining the details and sufficiency of these plans at all, much less for environmental justice populations. The NRC further states that mitigation analysis beyond the SAMA evaluation is not required because “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.” NRC SoP at 38-39. Statements that individual counties, states, and institutions (such as Sing Sing) have the responsibility and/or authority for emergency planning does not excuse the NRC’s failure to examine potential mitigation measures in its environmental justice analysis. “Reasonable alternatives *not within the jurisdiction of the lead agency*” are specifically a required element of an EIS. 40 C.F.R. § 1502.14(d). The NRC may not simply shrug its shoulders and pass the buck to other governmental and private institutions for any analysis or implementation of alternatives and mitigation.

D. NRC Cannot Assume EJ Impacts Would Be Small Because Emergency Plans Exist up to a 10-mile Radius

Entergy and the NRC Staff suggest that the Katrina disaster has nothing to teach us about the potential for disparate impact during an emergency. CLE000047 at A.10. This is obviously incorrect. Although the Katrina disaster was not a nuclear incident, there is much to be learned from it. In his opening testimony, Michael Edelstein showed how prisoners suffered major adverse consequences during Katrina. In addition, those without private vehicles suffered extreme distress and sometimes death while waiting for evacuation vehicles to arrive. *Id.* At minimum, Katrina should teach us that merely having an evacuation plan for EJ populations is not sufficient to avoid disparate impacts. *Id.* Although shelter-in-place is the primary option for most institutionalized EJ populations, no site-specific study of how suitable the buildings are for

sheltering has been done. *Id.* at A5. The evidence Clearwater provided in its opening submission showed that at Sing Sing the buildings don't have windows that would seal well. Moreover, none of the institutions have filtered HVAC systems and so the populations could experience extreme heat or cold during an emergency.

In addition, evacuation of institutionalized EJ populations is far more problematic than evacuating the general population. The elderly need additional help and medical are on arrival at evacuation centers. Prisoners could experience violence from fellow inmates or guards, or could attempt to escape. EJ populations have pre-disaster vulnerabilities that are "critical variables." CLE000057. Relocation of patients from hospitals within 10 miles would be an extraordinarily difficult task. CLE000048 at A5. Hospital evacuations cannot be addressed in an *ad hoc* manner, as proposed. *Id.* at A11. The needs of disadvantaged populations have not been adequately addressed in the evacuation plans. *Id.* at A9. Current plans fail to account for the potential for an accident to be combined with a natural disaster, such as flooding or storms. *Id.* One example of the inadequate treatment of EJ populations is that those without cars will be forced to wait in the open at bus stops, while other populations either drive away in private vehicles, or shelter-in-place. *Id.* at A7; CLE000046 at A.19.

Children, the elderly and disabled populations would not just need routine evacuation measures to provide them with a safe route out of the area, but they would need additional services to accommodate their special needs. *Id.* at A12. People with impaired mobility who may not even be able to walk to the bus stop or take extra time to get there are yet more disadvantaged. *Id.* at A19. Similarly, those who need regular treatment or medication may suffer disproportionately in a chaotic evacuation. *Id.* Those who cannot understand enough English to comprehend instructions may also be at a major disadvantage. *Id.* Thus, the mere

existence of an emergency plan cannot serve as a substitute for analyzing whether EJ impacts would occur if the plan were activated, and, if so, how those impact could be mitigated.

E. NRC Cannot Assume EJ Impacts Would Be Small Beyond 10 Miles

Beyond 10 miles, there is no evacuation plan at all. As Fukushima has demonstrated, contamination can rapidly spread beyond 10 miles triggering the need for evacuation. The NRC recommended evacuation of U.S. Citizens up to 50 miles around that plant. CLE00048 at A.4. Even the NRC's former chairman admitted that the areas beyond 10 miles could required further action. *Id.* Over 12 million people live within 50 miles of Indian Point, of whom over 6 million are in potentially members of EJ populations. CLE000031. It not credible that local authorities could effectively evacuate even a small portion of this huge population on an *ad hoc* basis. *Id.* at A5. As a New City stated it, evacuating the area 50 miles around Indian point would be “enormous challenge” and a historic feat. CLE000056. Finding host communities that could provide appropriate care for EJ populations would be a huge task that simply could not be done on an *ad hoc* basis. *See* CLE000057.

As a nationally recognized leader in disaster planning recently stated “the consequences of a problem [at Indian Point] are so devastating in such a densely populated area that I think we have a moral, ethical obligation to make sure we have solutions that are viable before allowing such a dangerous thing.” CLE000046 at A.17. A plan to improvise a plan to evacuate 6 million members of the EJ populations within 50 miles cannot substitute for the hard look required by NEPA at the potential disparate effects on EJ populations in the event of a nuclear accident at Indian Point.

VI. Entergy and NRC Other Objections Are Without Merit

A. Objections to Dr. Larsen's Testimony Are Without Merit

Entergy claims this testimony is beyond the scope of Clearwater's Contention EC-3A. This is incorrect because Dr. Larsen's testimony provides valuable insight into the limited medical treatment resources that would be available to the populations and communities residing within a 50-mile radius of Indian Point in an event of a severe accident. As the Fukushima accident illustrates, because EJ populations are disproportionately in need of medical services, they are most harmed by their lack of availability. Dr. Larsen also states that under emergency conditions emergency services personnel may be unwilling or unable to reach sites to administer care and transporting non-ambulatory patients would be extremely challenging, especially those on ventilators or life-support. Dr. Larsen further asserts that ambulance availability will be triaged and people with access to personal transportation will be better able to get to a hospital or reception center, than those who cannot afford their own vehicles. These statements are directly relevant to Clearwater's EJ contention.

B. Objections to Mr. Mair's Testimony Are Without Merit

Mr. Mair's discussion of the demographics of Westchester County in general and the City of Peekskill specifically is important because it establishes the existence of EJ populations within a mile from Indian Point. Furthermore, Mr. Mair's identifies specific aspects such as lack of car owners, the rugged terrain of Peekskill and the challenges of egress from the area, that make disparate impact likely. This testimony demonstrates first that the FSEIS missed these aspects, and second, that contrary to Commission guidance, the NRC Staff have failed to solicit input from community leaders like Mr. Mair.

C. Objections to Mr. Filler's Testimony Are Without Merit

Mr. Filler's analysis of the Westchester and Rockland County Emergency Plans is an evaluation of disparate impacts that could be caused to the identified EJ populations identified by their implementation. For example Mr. Filler establishes that the EPA dose assessment manual

states that generally 1 rem total equivalent dose is the limit at which general populations will normally be evacuated. Yet, those who may not be mobile might suffer up to five times that amount before being evacuated. Thus, Mr. Filler's testimony is focused on how the evacuation plans acknowledge that such disparate impacts are inevitable. This is directly relevant to the EJ contention because it shows that the failure of the FSEIS to find any such impacts is due to inadequate analysis.

D. Objections to Mr. Papa's Testimony Are Without Merit

While Entergy contends that Mr. Papa has no relevant personal experience or knowledge about the details of Sing Sing's emergency plans, Entergy disregards Mr. Papa's firsthand understanding of the facility and its procedures. Like the NRC and Entergy, Mr. Papa may not have been privileged to a line-by-line analysis of Sing Sing's plan, but unlike the NRC and Entergy he does have relevant knowledge about Sing Sing. Mr. Papa has insight on how viable living in Sing Sing would be as a shelter-in-place location and how difficult it would be to evacuate prisoners. Specifically, Mr. Papa's testimony regarding the structural inadequacies of Sing Sing to support an effective ventilation system is especially noteworthy given its purported status as a shelter-in-place facility during a severe accident. Thus, Mr. Papa's testimony provides valuable insight into potential mitigation measures that should be analyzed in the FSEIS.

E. Objections to Mr. Simms' Testimony Are Without Merit

Mr. Simms' personal experience at an assisted living home is vital to understanding the procedures of such facilities, especially those situated in such close proximity to Indian Point. While Bethel Springvale Inn does may not host a low income population, it certainly hosts an elderly population. In addition, many nursing homes do host low income populations. Mr.

Simms discusses the transit-dependent and mobility impaired nature of those living at Bethel Springvale Inn. Similar facilities housing lower income elderly people would face similar or worse problems. Mr. Simms' affirmation that impaired mobility conditions and other difficulties are a reality at these centers and therefore could cause disparate impacts is therefore directly relevant to the EJ contention.

A. Objections to Ms. Guardado's Testimony Are Without Merit

Contrary to Entergy's suggestions, Ms. Guardado's testimony was not a critique of emergency management or radiological emergency management. She testified on behalf of the minority community (Hispanic speaking individuals) in Peekskill of which she is a member. Ms. Guardado noted that her personal volunteerism and participation in the Comité Latino has broadened her personal expertise and knowledge on various issues that face the Latino community in Peekskill. Her engagement in this committee, daily involvement with Hispanic members of her immediate neighborhood and the work she performs each day have given her valuable insight to discuss why the Hispanic community of Peekskill would suffer disparate impacts in the case of a severe accident at Indian Point given the special needs of this population. Once again, the relevance of this testimony to the EJ contention is obvious.

CONCLUSION

As shown in the briefing above, and in the rebuttal testimony and other exhibits, the NRC and Entergy have demonstrated in their testimony why FSEIS fails to provide a sufficiently detail site-specific analysis of the potential for the relicensing of Indian Point to cause disproportionate impacts on local EJ populations. However, instead of acknowledging that this failure is violation of NRC procedures and NEPA, they continue to offer erroneous arguments in an attempt to justify that failure. Therefore, 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.

Respectfully submitted,

/s

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