

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

_____)	Docket Nos. 50-247-LR
In the Matter of)	and
)	50-286-LR
ENTERGY NUCLEAR OPERATIONS, INC.)	
(Indian Point Nuclear Generating Units 2 and 3))	
_____)	Filed December 22, 2011

**INITIAL PREFILED WRITTEN TESTIMONY OF
MANNA JO GREENE REGARDING
CLEARWATER'S ENVIRONMENTAL JUSTICE CONTENTION EC-3A**

Q1. Please state your name and residence.

A1. My name is Manna Jo Greene. I reside at 148 Cottekill Road, Cottekill, New York.

Q2. What is your profession?

A2. I am employed as the Environmental Director by Hudson River Sloop Clearwater, Inc. (Clearwater). I am testifying in my professional capacity based upon my eleven years of experience at Clearwater and more than 20 years in the environmental movement. Related experience includes more than 10 years in the Civil Rights movement (1963 – 1973 and beyond) and three years in the Environmental Justice (EJ) movement (2008 – 2011). I was also a Registered Nurse from 1976 to 2001 and certified in Critical Care for more than 10 years. My resume is attached hereto as Exhibit CLE000024.

Q3. Please describe your experience in the Environmental Justice Movement.

A3. Because it combines my interest in environmental protection and social justice, I have been interested in and a student of the environmental justice movement for the past ten years or more. I have attended multiple conferences, workshops and trainings sessions in Environmental Justice, including with Dr. Robert Bullard of Clarke Atlanta, Peggy Shepard and Cecil Corbin-Mark of WEACTION and Aaron Mair of Arbor Hill Environmental Justice Corp. and W. Haywood Burns Environmental Education Center. I have also presented on the history of the Environmental Justice Movement, focusing on Hudson River examples, at several universities and other venues, and have helped to coordinate several conferences on Environmental Justice and on Climate Justice.

Q4. Please describe the evidence Clearwater has already presented in support of its Environmental Justice Contention.

A4. In Clearwater's original Contention 3 (Exhibit CLE000043), Clearwater stated that Entergy's Environmental Report contained a seriously flawed environmental justice analysis in that it did not adequately assess the impact of Indian Point on the minority, low-income and disabled populations in the area surrounding Indian Point. Clearwater stated that there is a large minority, low-income and disabled population in special facilities (including hospitals and prisons) within 50 miles who will be severely impacted in the event of an evacuation from the area surrounding Indian Point. Clearwater also stated that low-income populations would be more severely and negatively impacted by an evacuation resulting from a radiological event at Indian Point because, among other things, low-income and minority families are more likely to use public transportation and may not have a personal vehicle, making evacuation more difficult.

In addition, as part of its Combined Reply to NRC Staff and Energy's Answer to Amended Environmental Justice Contention Clearwater submitted a declaration by Ms. Drew Claxton, a local environmental justice advocate in Peekskill, N.Y. (Exhibit CLE00025). In Sing Sing Correctional Facility and the Westchester and Rockland County Jails, which have populations of approximately 60% Black inmates, and 20% Hispanic of any race, the potential environmental justice impacts may be more obvious than in the community at large (from Incarceration Demographics provided by Westchester County in Exhibit CLE000038). However, Ms. Claxton stated that, in addition to the prisons there are many other institutionalized EJ populations in the region including Head Start pre-schools, nursing homes, shelters, and hospitals. *Id.* Furthermore, there are a disproportionate number of local minority or low-income residents who do not possess their own private transportation. Claxton also stated that it is often the case in Peekskill, as well as Ossining, both low income and minority communities, that children from the same family attend different elementary schools. Therefore, in comparison to most Westchester school districts where children who are evacuated would be transported to only one location, children from Peekskill City Schools and Ossining Village Schools are transported to different locations based on the schools that they attend. This makes it more difficult for Peekskill and Ossining parents to reunite with all of their children, and particularly hard if they do not have their own private transportation. Also, the City of Peekskill, includes or is in close proximity to a number of nursing homes, assisted living facilities, housing shelters, and low-income senior citizens housing and, as compared to higher-income communities in Westchester, has a higher proportion of physically and/or mentally disabled persons living in group homes. These populations are harder to evacuate during crisis. Also, as compared to higher-income communities, the City of Peekskill has a larger percentage of residents without private transportation, who are similarly more difficult to evacuate.

Q5. Has Clearwater done any research regarding potentially disproportionate impacts on communities of color, those with low income, and those who are mobility-impaired from relicensing Indian Point for another 20 years? If so, please describe.

A5. Clearwater Board member, Ross Gould, issued a series of FOIL requests to understand existing evacuation plans and to try to ascertain if there might be disproportionate impacts on communities of color, ethnicity or low-income and if so, if these were addressed. Exhibit CLE000028 summarizes these efforts.

Clearwater also requested and received from New York State Department of Environmental Conservation (NYS DEC) Office of Environmental Justice (OEJ) population data and

geographic information system (GIS) maps of Potential Environmental Justice Area (PEJA) populations within 10 and 50 miles of Indian Point, which are attached as Exhibits CLE000029, CLE000030 and CLE000031. These maps provide more user-friendly and legible mapping of the census blocks that are potential EJ areas within 10 and 50 miles of Indian Point. While there is good agreement between the areas flagged in the FSEIS as majority minority areas and the areas flagged by New York State within 10 miles, there is substantial disagreement between 10 and 50 miles. For example, there is a large EJ area above Poughkeepsie to the west of the Hudson River which is not identified in the FSEIS, and another large areas east of Rhinebeck on the 50 mile boundary is also omitted from the FSEIS. Many other discrepancies exist. Thus, it appears that the NRC Staff has failed to properly identify the EJ populations on the census block level, as required by Commission guidance. When questioned, Douglas Morrison of NYSDEC OEJ stated that neither NRC Staff nor Entergy had ever requested this data.

Clearwater also researched lists of institutions in EJ communities or who house or serve EJ populations located within 10 and 50 miles of Indian Point (MJ Wilson, Partial Inventory of Potential Environmental Justice Institutions, Exhibit CLE000032). Clearwater sought to obtain as complete a list of institutions and programs that provide services to potential environmental justice communities as possible. Given our limited resources and access, completeness was not possible, however more complete and comprehensive data sets may be available for purchase or could be provided by appropriate agencies if requested by NRC staff or others with the proper authorization. It is also possible that there are many small businesses providing services in childcare, home care, and related services that were not large enough or structured enough to register with the organizations we used as source material (ex: Head Start registry). Many of the sources for this research were government or not-for-profit websites, which may not be updated on a regular basis. Data was collected from multiple sources by MJ Wilson and several others. Ms. Wilson then attempted to identify and consolidate duplicate facility names and administrative offices from the list. Given that different sources sometimes used different names and/or addresses for the same facility, or more than one facility may have shared the same address, there may be some errors in this process. Other challenges included population data, with different sources for the same facility sometimes providing significantly different values. When the distance was not provided, MJ Wilson measured “as the crow flies” distance, not driving distance. When the distances was provided, but it was not clear if it was direct versus driving distance, the column was marked with “?” to indicate this uncertainty.

Q6. Who at Clearwater conducted the interviews?

A6. Clearwater created a team of people who directly interviewed personnel in facilities who house or serve institutionalized populations located mainly within 10 miles of Indian Point to assess their level of preparedness and ability to evacuate if there should be a radiological emergency at Indian Point that required an emergency response. These facilities include:

- Prisons/Jails
- Preschool Daycare centers/Head Start programs/Schools
- Nursing Homes /Senior Housing
- Hospitals and Rehabilitation Facilities
- Homeless Shelters
- Affordable Housing
- Emergency Services

- Other groups or persons who lack access to private transportation

The research team included Clearwater Environmental Director, Manna Jo Greene, and Clearwater Intern and Pace Law School student, Sarah Kelland, who interviewed staff at facilities in Peekskill, NY; Clearwater Environmental Justice Associate, Karla Raimundi, Esq., who interviewed Spanish-speaking residents in Peekskill (see Exhibit CLE000008). Clearwater contractor and volunteer, MJ Wilson, who interviewed personnel and residents of facilities in and around Ossining, NY; Clearwater Board Member, Susan Shapiro and summer intern, Melissa Coltun, who conducted interviews with administrative staff at a sampling of Nursing Homes and Day Care Centers within the 10-miles radius of Indian Point in Rockland County between June 13, 2011 and July 7, 2011. All researchers used the Hudson River Sloop Clearwater Emergency Evacuation Interview Questions (Exhibit CLE000033) as a tool to conduct interviews with staff at a variety of institutions, which were primarily located in EJ communities and/or those which served EJ populations.

Clearwater also attempted, but was unable, to interview several people who expressed concern for their jobs or funding for their programs, because Entergy provided charitable donations to these facilities.

Q7. What has Clearwater found in its research related to any potentially disparate impacts on EJ Communities concerning transportation?

A7. Searching the literature, Clearwater found a transportation analysis, “The Bee-Line System On-Board Survey – 2010 Final Report,” which was conducted by AJM Consulting for Westchester County, as a follow-up to a similar survey done in 2007, and was based on 10,040 responses, distributed among the bus routes across the county¹ (see Exhibit CLE000034). The survey found that Bee-Line riders are:

- Transit-dependent: 62% of riders don’t have access to a car. That compares to 15% of Westchester residents without access to a car, according to 2000 Census data;
- Diverse: Hispanics and African-Americans make up more than two thirds of the ridership, 34% and 38% respectively, which compares to the county-wide figure of 33.8% combined, according to the 2009 American Community Survey;
- Aging: The average age of riders was 37, up from 34 in 2007; riders over 50 increased by 4% in the same time period; and
- Low-Income: 47% had a total household income of less than \$25,000 per year.

Work trips were cited as the main reason people took the bus, with 67% traveling to or from work, and 73% being frequent users (5 days or more per week).² The executive summary concludes, “More than anything else, the Bee-Line’s role in Westchester County can be described as facilitating employment.”

Veronica Vanterpool of the Tri-State Transportation Campaign is not aware of the equivalent data for Rockland, Orange or Putnam Counties, and does not think they exist due to the expense of conducting such an extensive survey.

¹ http://transportation.westchestergov.com/images/stories/Planning/onboard_survey_v15%20final.pdf

² <http://blog.tstc.org/2011/07/26/bee-line-revealed-as-backbone-of-westchester-employment/>

With regard to bus transportation that would be used for an emergency evacuation, the Westchester County Indian Point Emergency Guide pull out (Exhibit CLE000039) includes maps of the bus routes. All the bus routes from Peekskill head east. If there is a plume spreading to the east, transport-dependent residents will have to travel in the plume, whereas those with their own private transportation could head north or south to escape the plume much more rapidly.

Q8. Is there any correlation between income and transit dependence?

A8. A Pratt Center for Community Development report notes that driving is not an alternative for many New York City residents (Exhibit CLE00040). “Overall, fewer than half (44 percent) of New York City households have regular access to a car. Rates of car ownership among low-income households, including NYCHA resident households, are lower still, even in locations with relatively poor access to transit. Low incomes and lack of access to credit are among the obvious barriers to car ownership for NYCHA [New York City Housing Authority] residents... and the cost of owning and operating a car is in fact more likely to keep low-income families in poverty... Driving is not an affordable option for many residents of areas that are the most isolated from the subway system.”³

“The Federal Transit Administration, Transportation Equity in Emergencies: a Review of the Practice of State Departments of Transportation, Metropolitan Planning Organizations, and Transit Agencies in 20 Metropolitan Areas, Final Report, May 2007” (Exhibit CLE000041) focused on emergency preparedness activities in 20 metropolitan regions, including the greater New York metropolitan area, that have recently experienced natural or man-made disasters and have populations with relatively high overall numbers and proportions of racial and ethnic minorities, persons with low incomes, persons with limited English proficiency, and persons living in households without vehicles. The assumption was “that officials in these regions would be especially attuned to the emergency evacuation needs of these populations and would be a source of effective and promising practices. However, with some exceptions, the agencies reviewed in this study have taken very limited steps towards involving populations with specific mobility needs in emergency preparedness planning, identifying the locations of and communicating emergency preparedness instructions to these populations, or coordinating with other agencies to meet the specific needs of these populations in an emergency. While many agencies have conducted important outreach, analysis, and coordinating activities to address the needs of their general population in emergencies, few have targeted these activities to assist their region’s most vulnerable people.”⁴

The report also cited a GAO Government Accountability Office (GAO) Report that found, “that state and local governments are generally not well prepared to evacuate transportation-disadvantaged populations, but some have begun to address challenges and barriers. The report also concluded that the federal government could do more to assist state and local governments to address the needs of transportation-disadvantaged populations... which include people with

³ Pratt Center for Community Development, Public Housing in New York City: Building Communities of Opportunity (2009), p.38.

⁴ Federal Transit Administration, Transportation Equity in Emergencies: a Review of the Practice of State Departments of Transportation, Metropolitan Planning Organizations, and Transit Agencies in 20 Metropolitan Areas, Final Report, May 2007; p.1.

disabilities, older adults, and people with low-income and limited English proficiency.”⁵ As we will demonstrate, Clearwater’s research bore out these findings in the area surrounding Indian Point.

The report also cites the following demographics for the greater New York metropolitan area, including adjacent portions of New Jersey and Connecticut. Of that 21million population, 39% were minority, 16% limited English proficiency, 13% below poverty level and 29% zero-car households. There was an especially high correspondence between poverty and zero-car households and minority populations.⁶

Clearwater witness Aaron Mair noted similar findings by the Brookings Institute (Berube, Deakin and Raphael, Exhibit CLE000022), which resulted in disparate ability to evacuate from disaster by transit-dependent populations.

Q9. Please describe the findings of the interviews done by Clearwater’s research team.

A9. The various interviews are described as below, with summary and conclusions to follow.

DAY CARE CENTERS AND HEAD START PROGRAMS

Q10. Who did the research on pre-school day care centers, and during which time period?

A10. Manna Jo Greene and Sarah Kelland did this research between June 2 and December 16, 2011 in Peekskill; MJ Wilson conducted interviews in Ossining; Susan Shapiro and Melissa Coltun in Rockland County.

Q11. How was this research done?

A11. This research was done by a combination of document review and interviews of individual facilities. We selected the facilities for interview by calling facilities on provisional lists compiled by MJ Wilson. When it was not possible to reach administrators by phone, we went directly to the facilities and requested a few minutes of time from the Director or other person in charge to ask a few questions about their respective emergency plans. With few exceptions (clearly noted below), most of the facilities were located in Potential Environmental Justice Areas, and/or served low-income populations. The Head Start Programs were well prepared; many of the families using Head Start were Spanish-speaking and had limited English proficiency, which could make following evacuation directions more difficult. The most prominent finding was that there was inconsistent preparedness for a radiological emergency, with private facilities such as assisted-living facilities owned by religious orders and private nursing homes, less prepared than State or Federally funded facilities. If emergency plans were stored on site, even otherwise well-informed administrators were unfamiliar with the plan or its content. Several would rely on information from an administrator, who might or might not be present on site, or even an off-site board member to direct them. Facilities funded by New York State or the federal government or a local municipality tended to have potassium iodide on hand

⁵ *Ibid.* Citing “Transportation-Disadvantaged Populations: Actions Needed to Clarify Responsibilities and Increase Preparedness for Evacuations,” prepared by the United States Government Accountability Office (December 2006).

⁶ *Ibid.* p. 49

although some believed that they needed a prescription to administer this over-the-counter medication.⁷ In many cases, after speaking with the Clearwater researchers, staff asked for additional information. Many of those interviewed went back and read information that was on hand or obtained as a result of the interview process, and a few obtained KI or located where it was stored. Few, if any, could identify where the nearest emergency evacuation reception center was; few knew about radio communication; many had insufficient transportation for evacuation; several that were expected to shelter in place felt this offered insufficient protection for themselves or the residents of their facility. Since many of these facilities serve or house people with special needs (walking disability, sight or hearing impairment, needing specialized medical equipment or transportation)⁸ the training and preparation should be current and assure that all staff of these facilities are able to respond promptly and appropriately.

Peekskill Head Start Program

Q12. Where is Peekskill Head Start program located and who was interviewed?

A12. On June 2, 2011, Manna Jo Greene and Sarah Kelland went to Peekskill Head Start program located at 705 South Street, Peekskill, NY and interviewed Assistant Director, Stacey Stymiloski.

Q13. What population does the Peekskill Head Start program serve?

A13. The government sets income-based eligibility requirements. The facility serves mainly Hispanic children, especially for the past 5 years, but also a mixture of racial and ethnic populations.

Q14. What emergency planning or preparation does Peekskill Head Start do, and do they have an emergency evacuation plan on site?

A14. Head Start emergency plan is the same as the Peekskill School District's. A copy of the plan is posted in the main office of the facility.

Q15. Has Peekskill Head Start done any planning or preparation specifically for an accident or incident at Indian Point?

A15. Peekskill Head Start has a plan in place. If evacuation were necessary the staff would accompany the children who would walk from the South Street site to another site, Aunt Bessie's on Union Avenue.

Q16. Does the Peekskill Head Start emergency plan include distribution and administration of Potassium Iodide – a medication that will mitigate the effects on the thyroid gland from exposure to radioactivity?

⁷ Potassium iodide has to be recognized as only partially effective for exposure to one among many possible radioisotope(s) that may be released in the event of a severe accident at Indian Point. It's the only treatment available, but it addresses only a fraction of the potential exposure. It's more important for children because of their increased rate of cell synthesis. It is by no means a cure-all, and it should not be relied upon to do more than offer partial protection for the thyroid.

⁸ Orange County Indian Point Emergency Guide: Are Your Ready; 2011-2012 Edition.

A16. Yes, Peekskill Head Start has potassium iodide for the staff and the children. Parents are asked if they want their child to have potassium iodide and must sign a form if they refuse to have it administered to their child.

Aunt Bessie's Head Start Program

Q17. Where is Aunt Bessie's Head Start program located and who was interviewed?

A17. On June 2, Manna Jo Greene and Sarah Kelland also went to Aunt Bessie's Head Start program located at 137 Union Avenue, Peekskill, NY and interviewed the Director, Doris Boddie.

Q18. What population does Aunt Bessie's Head Start program serve?

A18. As with Peekskill Head Start, the government sets income-based eligibility requirements. The facility serves mainly Hispanic children, and also a mixture of other racial and ethnic populations. The income requirement includes the number of people in a family or household. The administration has a record and reports the demographics of the program to New York State and Federal agencies, but that information is not readily available to the public.

Q19. What emergency planning or preparation does Aunt Bessie's Head Start do, and do they have an emergency evacuation plan on site?

A19. Aunt Bessie's Head Start is a NY State licensed facility. Westchester County sets the Emergency Plan; packets are on site. There is mandatory training for everyone within a 10-mile radius around Indian Point.

Q20. Has Aunt Bessie's Head Start done any planning or preparation specifically for an accident or incident at Indian Point?

A20. Aunt Bessie's follows the Westchester County guidelines.

Q21. Does Aunt Bessie's Head Start emergency plan include distribution and administration of Potassium Iodide – a medication that will mitigate the effects on the thyroid gland from exposure to radioactivity?

A21. Yes, Aunt Bessie's has potassium iodide on hand for use by staff and by the children in its care.

Haverstraw Day Care, Inc.

Q22. Where is Haverstraw Day Care and who was interviewed there?

A22. Ms. Shapiro and Ms. Coltun met with Gabriela Armas, Assistant Director of Haverstraw Day Care, Inc., located at 212 Route 9W, Haverstraw, NY.

Q23. What are the demographics of the children?

A23. Haverstraw Day Care serves children ages 3-12, with fifteen children under the age of 5

years old, and ten over 5 years old. They also have an after school program for the older children. They have the capacity of twenty-five children, with a staff of six.

The ethnicity of the children is mostly Hispanic, with some Asian. Private Day Care costs \$250 per month for full-time care, or \$165 per month for part-time.

Q24. What are their plans for emergency evacuation?

A24. There is always one person on staff with information on the emergency evacuation. In the case of an emergency, the plan is to call the families and have them all pick up the children. All the families, except for one, have transportation.

Q25. Do they have evacuation training?

A25. They have not had an evacuation training session; they think they would evacuate to a nearby school in Haverstraw (which is within the 10-mile radius of Indian Point).

Q26. Do they have Potassium Iodide (KI)?

A26. They don't have KI on hand. Ms. Armas didn't know what KI was and requested more information on how to access KI.

Cricket Town Child Care Center

Q27. Where is Cricket Town Child Care Center (CTCCC) and whom did they interview there?

A27. Ms. Shapiro and Ms. Coltun met with Samantha J. Neiderman, Director of Cricket Town Child Care Center, 18 N. Route 9W, West Haverstraw, NY.

Q28. What population does Cricket Town Child Care serve?

A28. Cricket Town serves a population of 2 months old to 4 years with a capacity of 74 children. They have 23 employees, with 10 on staff at all times. They currently have 6 infants, 24 toddlers, and the rest are preschool-aged. The ethnicity of children served by CTCCC is approximately 25% Caucasian, 25% African-American, 25% Hispanic, and 25% Other.

Q29. Does CTCCC have an emergency evacuation plan and transportation?

A29. In the case of an emergency at Indian Point, North Rockland bus transportation will take children to Rockland Community College (RCC), where parents can pick them up. All parents have their own cars, and all staff, except one, have their own transportation. If the buses don't show up, CTCCC would have the staff drive the children to RCC. Unfortunately they can't store car seats on the premises, because it's a fire safety issue.

Q30. Does CTCCC have Potassium Iodide (KI) on hand?

A30. No, they currently don't have KI on hand, but are looking into getting it.

Q31. Have they received any training for a radiological evacuation?

A31. No, they have not attended a training session for Indian Point, but they do hold fire drills once a month.

Tutor Time Day Care

Q32. Where is Tutor Time Day Care Center located and whom did you interview?

A32. On July 7, 2011 at 2 p.m. Clearwater researchers Shapiro and Coltun met with Toniann DiVenere, who provided the following information. Tutor Time Day Care is located at 285 Route 303, Congers, NY.

Q33. What population does Tutor Town Day Care serve?

A33. The children's ages are between 6 weeks and 5 years old, with maximum capacity of 154 students. Currently there are approximately 55-60 infants and toddlers, and 80 children aged 3-5. There are approximately 25% of each ethnicity, Caucasian, African-American, Hispanic, and Other.

Q34. What is the transportation situation at Tutor Town Day Care?

A34. All parents and staff have their own form of transportation. There are 25 total staff members, with 22 working on a regular basis and 3 substitutes.

Q35. Does Tutor Town have an Emergency Plan?

A35. Yes, currently the plan is as follows:

1st Step: Call parents to pick up their children

2nd Step: Move children and staff across street to Aptar – a building down the road.

3rd Step: Wait for a bus to Orangeburg/Suffern. Parents will be alerted while waiting.

When the bus gets there the children will leave with the staff. Staff members must remain with children until they're all picked up or safe.

Q36. Does Tutor Town Day Care have KI on the premises?

A36. No, they do not have KI, and did not know about it. But after speaking with them they said they would be getting a supply within the next couple of weeks, which upon a follow up discussion, they confirmed they did and Tutor Town Day Care now has KI on hand.

Q37. Does Tutor Town Day Care have emergency training?

A37. Emergency training protocols for Tutor Town Day Care Center are dictated by the corporate office. A backpack is given to the staff member for every class. It includes non-perishables, water, and medicine/allergen needs. They hold a fire drill once a month, and two evacuation drills per year. They have an Indian Point Radio, which receives maintenance every 6 months.

WESTCOP St. Matthew's Day Care

Q38. Where is WESTCOP St. Matthew’s Day Care and who was interviewed there?

A38. Clearwater researcher, MJ Wilson, visited the center located at 50 North Malcolm Street, Ossining New York on July 1, 2011, but Judy Byrne, the Director of the facility, declined to be interviewed.

Q39. What are the demographics of the children?

A39. This information was not provided, but the facility does offer the Head Start and Early Head Start programs. When in the facility during operating hours, MJ Wilson observed the staff to be predominantly Black and Hispanic and the children to be predominantly Black and Hispanic.

Q40. What are their plans for emergency evacuation?

A40. No information was provided.

Q41. Do they have evacuation training?

A41. No information was provided.

Q42. Do they have KI?

A42. No information was provided.

Q43. Did the Clearwater research team interview any other daycare centers or schools?

A43. In searching the literature on this subject, Clearwater found an article by Abby Luby, entitled, “*Schools say Indian Point Evacuation Plan Unrealistic*”, published in North Country News on November 19, 2008 (Exhibit CLE000035). In it, Judith Johnson, former Superintendent of Schools for the Peekskill School District, is quoted as saying:

“The issue will not be about accompanying students to a safe place because we have very caring teachers. I think the issue will be that the teachers will want to get home to their children – that’s going to be the big issue.”⁹

Supt. Johnson went on to say that Peekskill teachers have worked out a buddy system to accommodate teachers that couldn’t stay with their students.

“When we’ve had early dismissal the teachers who live nearby who don’t have immediate obligations have agreed to remain in the building until parents pick up their kids,” said Johnson. “That allows the teachers who live at a distance and who have children to leave. It’s a really nice buddy system that’s taken place informally at the schools.”¹⁰

Anthony Sutton, Commissioner of the Westchester County Department of Emergency Services who oversees the emergency evacuation plan and was later interviewed by Manna Jo Greene and Clearwater Board member, Stephen Filler, reported to Ms. Luby that the county understands that some teachers may not be able to travel with students to reception centers.

⁹ Luby, Abby, “*Schools say Indian Point Evacuation Plan Unrealistic*”; North Country News, Nov. 19, 2008; www.abbylu.com/pdfs/SPOT/indptplanunrealistic.pdf

¹⁰ *Ibid.*

“I do understand that if two teachers are standing next one another [during an emergency] and one has young kids in a school district somewhere else and they want to get back to their kids and there is a teacher standing next to them whose kids are grown, they would say ‘listen you go, I’ll stay with the kids. It’s not a problem.’ I think that’s the kind of stuff you can’t put in a plan but that’s the stuff that would happen very frequently in a real emergency.”¹¹

City of Peekskill Youth Bureau

Q44. Where is the City of Peekskill Youth Bureau located and who conducted the interview?

A44. Clearwater researcher, Manna Jo Greene, interviewed Valerie Swan, Director of the City of Peekskill Youth Bureau, which is located at 828 Main St., Peekskill, NY 10566, by phone on 11/29/11 and 12/13/11.

Q45. What are the eligibility requirements for youth participating in Youth Bureau programs?

A45. The Youth Bureau serves all youth in the City of Peekskill, providing youth developmental activities during free time outside of school; however, most of the funded employment programs are for youth whose families are at or below poverty guidelines (see Table 2 below, provided by Ms. Swan).

**Table 2: 200% of Poverty Income Standard
TANF Program Year June 1, 2011 through May 31, 2012**

Family Size	Annual Income	Monthly Income	Bi-Weekly Income	Weekly Income
1	\$21,780	\$1,815	\$836	\$419
2	\$29,420	\$2,452	\$1,131	\$566
3	\$37,060	\$3,088	\$1,425	\$713
4	\$44,700	\$3,725	\$1,719	\$860
5	\$52,340	\$4,362	\$2,013	\$1,006
6	\$59,980	\$4,998	\$2,307	\$1,153
7	\$67,620	\$5,635	\$2,601	\$1,300
8	\$75,260	\$6,272	\$2,895	\$1,447
For Family units with more than eight members, add				
	\$7,640	\$637	\$294	\$147

For example, the Youth Bureau provides summer youth employment for 45 low-to-moderate income youth; however, 150 youth applied who were not eligible. The Youth Bureau also provides free activities at Peekskill Parks for all youth, which includes a DJ four nights a week. In addition, they provide Workforce Initiative Act Programs for 65 students 14 – 17 (“We’re In” – still in school) and ages 18 – 21 (“We’re Out”) based on income guidelines.

¹¹ *Ibid.*

Q46. How do the youth in these programs get to the Youth Bureau?

A46. Usually 90% of all participants walk; a few are transported by their parents or guardians.

Q47. Does the Youth Bureau have an emergency evacuation plan on site?

A47. Yes. Youth Bureau staff also attend Emergency Management trainings for Peekskill and for Westchester, when they are provided on an annual basis.

Q48. Does the Youth Bureau hold practice drills to prepare for an emergency evacuation?

A48. Yes, the local fire chief holds fire drills. They don't schedule them ahead of time; they just arrive and the facility is evacuated according to the plan.

Q49. How often do they hold practice drills? When was the last one held?

A49. Usually drills are held twice a year; 2010 was the last drill.

Q50. Does the Youth Bureau have a plan specifically to respond to an accident or incident at Indian Point?

A50. Yes, a plan is available for staff to review.

Q51. Where would the youth go if there were an emergency evacuation?

A51. Depending on the number of youth in the Center, they would cross Main Street and to the corner of Nelson and Main Street.

Q52. Does the plan include potassium iodide (KI) distribution to staff or to youth participating in Youth Bureau programs?

A52. No, because that would require a Nurse, and/or a Medicine Dispensing Class. Hudson River Health Care is located just down the street, two blocks away. They may be able to distribute KI. A medication dispensing class takes 14 to 21 hours. This class covers State Regulations for medication dispensing.

NURSING HOMES, HOSPITALS, ASSISTED LIVING, ADULT CARE AND REHABILITATION FACILITIES

Q53. Has Clearwater undertaken research about the potential impact of a severe accident at Indian Point on nursing homes?

A53. Yes

Q54. What kind of research did Clearwater researchers do?

A54. Clearwater reviewed evacuation plans, interviewed residents and managers of nursing homes, and compiled lists of facilities (included in Exhibit CLE000032) that could be potentially affected.

Q55. Please summarize these findings.

A55. At the facilities where Clearwater conducted interviews, most of the residents are over 65, poor and living on social security or Medicaid, and many are minority. Many are in wheelchairs or otherwise immobile; and many have mental or emotional disabilities that would likely make evacuation difficult. Many facilities are multi-storied with many stairs, complicating evacuation further. Staff as a rule does not have a clear idea of what transportation would be used in the event of an evacuation, and generally would have to coordinate evacuation on an as needed basis in the middle of a crisis. The facilities either plan to shelter in place, or would have to shelter in place while awaiting evacuation, and it is unclear how long water and food supplies would last. If the facilities were without power, they could be dangerously cold in winter, or dangerously hot in summer. The facilities generally have not conducted drills for radiological events. There is no evidence that potassium iodide is available for distribution at any facility.

Q56. Who conducted the interviews and when?

A56. Susan Shapiro led this work. From June 13 to July 7, 2011, Ms. Shapiro and her summer college intern, Melissa Coltun, conducted interviews with a sampling of Nursing Homes and Day Care Centers within the 10 miles radius of Indian Point in Rockland County. MJ Wilson interviewed administrative staff at several senior retirement centers in Rockland County, within and beyond a 10-mile radius around Indian Point. Manna Jo Greene interviewed John Simms, a resident at the Bethel Springvale Inn, and who has submitted his own testimony (see Exhibit CLE000006).

Summit Park

Q57. Where is the Summit Park Nursing Home and whom did the Clearwater researchers interview there?

A57. On June 13, 2011 Shapiro/Coltun met with Maryann Ricaldo, Director of the Summit Park Nursing Home, located at 50 Sanitorium Road, Pomona, NY.

Q58. What is the population and capacity of the home?

A58. The population is geriatric and long-term acute care, with a capacity of 357 beds. The demographics for this facility are 20% are under the age of 65, with most of the residents over the age of 80. There are more women than men, with many different nationalities; 70 – 80% can walk without assistance; the balance need assistance. On the 9th floor Dementia Unit, which houses 1/3 of the facility's population, many those who are physically mobile, may be mentally incapacitated and could refuse to be evacuated.

Q59. What is the economic status of the residents?

A59. Most of these people at Summit Park have nothing left in terms of income and are living off Medicaid and Social Security.

Q60. Who is in charge of evacuation plans?

A60. The emergency and evacuation plans are mandated through the New York State Department of Health, since Summit Park is a State facility.

Q61. Do they have a workable evacuation plan?

A61. The difficulty with any evacuation plan is that in the nursing home alone there are 357 beds. There are many stairs and floors to contend, with many people needing their wheelchairs. It is a nine-story building.

Q62. Does Summit Park have necessary transportation if they need to evacuate the premises?

A62. They would have to take shelter in the hospital until bus service arrived to transport people elsewhere. They do not have their own transportation. They are aware that they will have to rely on local fire departments or ambulance services. They would have to directly coordinate with Office of Emergency Services. However, they believe that one advantage Summit Park has is that their Commissioner has a seat in the Command Office at Indian Point for Rockland County.

Q63. If they have to shelter in place, do they have necessary supplies?

A63. If they are told by Emergency Services to take shelter in the facility, they have enough water for one week and enough food for two weeks. The building, which is made of concrete and windows, would be closed and all ventilation would be turned off. In the summer it would get very hot, especially in the upper floors, and in the winter it would be very cold.

Q64. Is the staff required to stay there in the event of an evacuation?

A64. There is no guarantee that the staff would be available to assist in the evacuation or treatment if the area were to undergo evacuation. They have a public day care facility where some of the staff have children, but others have older children in school, who they may choose to go and find.

Q65. How difficult would it be to evacuate the building?

A65. The 9th floor Dementia Unit is especially problematic because during evacuation drills the residents, many of whom have Alzheimer's, freeze up and simply refuse to move, so it would be very difficult to evacuate them. There is no telling how long it would take to move them, as they get confused.

Q66. What is the economic and racial make-up of the population?

A66. The population itself is low income and the residents are of all different nationalities. Staff is mostly Indian, Haitian, and Jamaican.

Q67. Do they hold evacuation drills?

A67. Ms. Ricaldo stated that staff are all middle aged, and if someone got hurt the hospital could be held liable. So it is really hard to practice emergency evacuation, as much as they'd like to.

Q68. Do the emergency plans work for this facility?

A68. Ms. Ricaldo stated that "emergency preparedness only works to a certain degree." Summit Park's template for evacuation and emergency planning is to wait until told what to do by the Rockland County Office of Emergency Services.

L'Dor Adult Home

Q69. Where is the L’Dor Home and whom did you interview there?

A69. On June 14, 2011 the Clearwater researchers Shapiro/Coltun met with Elliot Markowitz, Owner and Administrator of L’Dor for the past 25 years. L’Dor is located at 156 W. Clarkstown Road, New City, NY 10956. L’Dor is an adult care facility similar to Northern Riverview and Golden Acres.

Q70. What the requirements to become a resident, and the capacity?

A70. Residents must be able to move on their own and be able to self-preserve and get out if necessary on their own. There are 44 beds with thirty men and fourteen women currently. Ages range from 29-85; all have mental health diagnoses. Most residents are on SSI.

Q71. Do they do practice drills?

A71. They have practice fire drills once a month and everyone can get out in less than 5 minutes.

Q72. Do they hold Indian Point drills?

A72. They have an emergency radio. Regarding Indian Point preparedness, staff openly acknowledges that there is no training anyone can do for a severe incident or accident at Indian Point.

Q73. Does L’Dor have transportation, if they were ordered to evacuate?

A73. Staff will notify Mr. Markowitz, who will call Chris Jensen of Rockland County Emergency Services to arrange for transportation. They will rely on the ambulette service, which only seats 8 people at most.

Q74. Will the staff stay with residents in the event of evacuation?

A74. L’Dor doesn’t have a daycare for staff children. They do expect the staff to stay with the residents in the case of an emergency. A major problem is that most of the staff don’t have cars.

Q75. Do they have Potassium Iodine (KI) on site?

A75. Elliot Markowitz indicated that like every other home, they are not allowed to dispense KI without a prescription. If unable to reach the doctor, they have to go to the Emergency Room to get medication. They do not keep prescriptions for KI on file or have a standing list of who should or should not get KI.

Golden Acres

Q76. Where is Golden Acres and whom did the Clearwater researchers interview there?

A76. On June 14, 2011, Ms. Shapiro and Ms. Coltun interviewed Administrator Frantz Louisme at Golden Acres, located at 11 Prospect Street, Spring Valley, NY.

Q77. Who are the residents at Golden Acres?

A77. Golden Acres is an assisted living facility that serves people aged 30-80 years old. Some are on Medicaid, some on SSI, and some are on both. They have the capacity for 80 residents.

The residents are primarily elderly adults who may need assistance with daily living tasks such as nursing, personal care, medication management, ambulation, physical, speech or occupational therapies and case management. The racial make-up of the resident population is approximately:

60% - African American

30% - Caucasian

10% - Hispanic

Residents are treated mostly for psychiatric conditions like bipolar disorder, depression, schizophrenia, etc. They have two deaf people and one person on a walker.

Q78. Does Golden Acres have dedicated transportation?

A78. They coordinate everything with Evergreen Court. They have about 3-4 emergency ambulettes available, one of which is owned by Evergreen Court. They would have to rely on Bardonia Ambulette for additional transportation.

Q79. Do they practice emergency evacuation drills?

A79. Their last fire drill was on 6/7/11. Golden Acres evacuated a 3-floor building in less than 5 minutes. The Administrator remains in the building until everyone else is out.

Q80. If they were ordered to evacuate, where would they go?

A80. The plan is to evacuate to New Monsey Park, a few miles away.

Q81. In the event of sheltering in place, do they have supplies?

A81. The American Red Cross would be called to assist with food and supplies.

Sunrise Senior Living

Q82. Where is Sunrise Senior Living and whom did you interview?

A82. On June 11, 2011 Ms. Shapiro and Ms. Coltun met with Carole Gomez, Human Resources Executive, who provided the following information. Sunrise Senior Living is located at 233 N. Main Street, New City, NY.

Q83. What is the population at Sunrise Senior Living?

A83. The eligibility requirements are as follows: There are nine levels of care at Sunrise from independent to total dependence. Sunrise is not allowed to provide intravenous (IV), feeding tubes and sub-acute care services. The demographics at Sunrise Senior Living are ages 61-100. They have an Alzheimer's/Reminiscence Unit. No information was made available on ethnicity or income.

Q84. Does Sunrise have evacuation plans; if so, what are they?

A84. Sunrise Senior Living is an international cooperation with 400 locations. Their headquarters are in Virginia and they are mandated by New York State and their own corporate headquarters to have emergency and evacuation plans. During Katrina, they had many of the homes evacuated in Texas, Louisiana, and Mississippi. Their main plan is to first see if the family can pick up their relatives, then if necessary evacuate to a sister community, and lastly to just take shelter in the facility.

Q85. Does Sunrise hold emergency evacuation drills?

A85. Part of their emergency preparation involves holding two drills a year. In the first year they were able to get everyone out in 17 minutes; the second time they were all out in 14 minutes. Ms. Gomez said that they try and make it into a game, and once they're outside it takes them longer to get inside than to get outside. In that fourteen minutes, they provide a sweep of the entire building and established that everyone was out.

There are two types of evacuations: physical and medical. A physical evacuation would involve removing all residents temporarily. A medical evacuation would involve bringing all the medications out in med carts in order to prepare for an extended or permanent evacuation.

Q86. Does Sunrise have their own dedicated transportation?

A86. They keep a transportation log, which is updated weekly so they know who needs what service to where at any given time. They have made arrangements with Coach Buses and local tour buses. Evacuating to sister communities is possible, but they did not know how long it would take for the buses to get there. They are located in the heart of New City, where mobility is extremely difficult because the streets are narrow and there's always lots of traffic, even on the side streets.

Q87. Would the staff stay with the community in the event of an emergency?

A87. The home welcomes families of the residents during emergencies. During snowstorms, they allow families to take shelter in the home so the elderly are provided for. At least nine of the staff are currently pregnant. 91% of the staff is female; less than 10% are male. A third of the residents are male.

Q88. Does Sunrise have KI on site?

A88. Because there are no doctors on staff, medications are not allowed to be prescribed on premises; orders must come from a resident's personal physician, so if there was to be a nuclear emergency, they would not be allowed to distribute KI to staff or residents. There are no standing orders

Q89. If they were ordered to evacuate, do they know where they would go?

A89. If Sunrise had to evacuate, they would probably head to Old Tappan, or to areas in New Jersey: Paramus, Upper Saddle River, Woodcliff Lake, Wayne, and Edgewater.

Q90. Is the staff trained in emergency evacuation plans?

A90. Ms. Gomez said that nursing instruction is provided by RCC and Dominican College and that there is a special section devoted to evacuation and emergency preparedness. They said that

they could evacuate everyone in 14 -17 minutes for fire drills. They did not seem to be prepared for an emergency evacuation, in the case of a severe accident at Indian Point. They are prepared for fires, flooding, a gas leak, tornado warning, etc., but not for a radiological emergency.

To mobilize people who need assistance just getting around or to help people with Alzheimer's who may not cooperate is difficult at best.

Helen Hayes Rehabilitation Hospital

Q91. Where is the Helen Hayes Rehabilitation Hospital and whom did the Clearwater researchers interview there?

A91. On July 5, 2011 Shapiro/Coltun met with John Gagliardo, Facility Director of Helen Hayes Rehabilitation Hospital, who provided the following information. Helen Hayes is located on Route 9W N, West Haverstraw, NY.

Q92. What is the capacity and staffing?

A92. Capacity is 125 beds, and they rarely have less than 90 people. They have 400 staff members for around the clock care.

Q93. In the event of an Indian Point emergency, what is their plan?

A93. The plan would be to get patients discharged, if possible, and to coordinate with Good Samaritan Hospital in Suffern or Nyack Hospital, in Nyack.

Q94. What is their transportation capability?

A94. They have 2 ambulettes on site, and would have to call for more ambulettes, if available. The ambulettes can't transport more than one person at a time if they're bedridden, and they have up to 12 bedridden patients at a time (spinal cord, brain injury).

Q95. If they were told to shelter in place, does HHRH have supplies?

A95. Until they were able to get everyone out, they would shelter in place. HHRH has enough food for 2 weeks and uses public water supplies.

Q96. Does HHRH have KI on site?

A96. They did not have KI on hand ready to distribute.

Maryknoll Sisters

Q97. Where is the Maryknoll Sisters Senior Residences and who was interviewed there?

A97. During the week of September 26, 2011, and on December 5, 2001, Clearwater researcher MJ Wilson conducted an original and follow up phone interview with Sr. Gerald Drake, Administrator of Maryknoll Residential Care, who provided the following information. The Maryknoll Sisters' Center is a private facility located at 100 Ryder Road, Ossining, NY, which is 9 miles from Indian Point.

Q98. What is the population and capacity of the home?

A98. Maryknoll Sisters Center has programs, which provide care for retired Maryknoll nuns. There are 220 residents at this institution; 11 women are under 65 years of age and 209 are 65 years of age or older. Approximately 100 of these women are able-bodied and approximately 100 depend on walkers and canes. It is not known what percentage of the residents have the mental capacity to cooperate with any emergency procedure.

Q99. What is the economic status of the residents?

A99. Maryknoll Sisters take vows of poverty; the population of the home is therefore predominantly low-income.

Q100. Do the Maryknoll Sisters have a disaster plan to cover a radiological disaster?

A100. The facility does have a radiological disaster plan. Sr. Gerald stated it was general policy that they would not evacuate. She assumes this is because any attempts at evacuation would be futile. A copy of the policy document is not publicly available.

Q101. Is the staff required to stay there in the event of an evacuation?

A101. Employees do not live on site and are required to sign an agreement indicating whether they would stay on site or leave in the event of a radiological emergency.

Q102. Do they have necessary transportation if they need to evacuate the premises?

A102. Limited vehicles are available for daily use. The number of vehicle available during any radiologic event is not relevant as their declared policy is that they will not evacuate.

Q103. Do they have a way to be notified of an Indian Point emergency?

A103. There is an Indian Point alert radio on site and it does work properly.

The Sisters of Charity of New York

Q104. Where are the offices of the Sisters of Charity of New York located and whom did the Clearwater researchers interview there?

A104. On September 27, 2011, Clearwater researcher MJ Wilson conducted a phone interview with Sr. Eileen McGrory, Assistant to the President of The Sisters of Charity of New York and Director of Retirement, who provided the following information. Sr. McGrory's office is located at the Sisters of Charity Center on the campus of College of Mount Saint Vincent, 6301 Riverdale Avenue, Bronx, New York.

Q105. How many facilities does Sr. Eileen McGrory oversee, what are the names and locations of these facilities and what is the aerial distance from Indian Point?

A105. Sr. McGrory oversees the following retirement facilities: St Patrick's Villa at 2 Duryea Lane, Nanuet, NY, which is 13 miles from Indian Point; Convent of Mary the Queen at 35 Vark

Street, Yonkers, NY 10701, which is 23 miles from Indian Point; and Mount St. Vincent Convent at 6301 Riverdale Avenue, Bronx, NY 10471, which is 25 miles from Indian Point.

St Patrick's Villa at 2 Duryea Lane, Nanuet New York

Q106. What is the population and capacity of the home?

A106. St. Patrick's, a private facility, is an assisted living facility for retired nuns. There are 15 residents at this facility; nine are between 70 and 79 years of age and approximately six are between 80 and 89 years of age. All are able-bodied, but frail.

Q107. What is the economic status of the residents?

A107. The Sisters of Charity of New York take vows of poverty; the population of the home is therefore predominantly low-income.

Q108. Who is in charge of evacuation plans?

A108. The facility does not have a detailed evacuation plan and looks to the municipality of Nanuet to provide direction in case of an emergency.

Q109. Do they have a workable evacuation plan?

A109. No, they do not have any evacuation plan at all.

Q110. Do they have necessary transportation if they need to evacuate the premises?

A110. Sr. McGrory indicated that this facility might have enough house cars to use to evacuate their residents. A problem could arise if their cars are being used for other purposes, as they often are, and are not always immediately available.

Convent of Mary the Queen at 35 Vark Street, Yonkers NY

Q111. What is the population and capacity of the home?

A111. This private facility is a skilled nursing facility for retired nuns. There are 76 residents at this facility; three women are aged 68, eleven are between 70 and 79 years of age, forty-three are between 80 and 89 years of age, and nineteen are between 90 and 100 years of age. Very few of these women are able-bodied and at least thirty of them lack the mental capacity to cooperate with an evacuation procedure.

Q112. What is the economic status of the residents?

A112. The Sisters of Charity of New York take vows of poverty. The population of the home is therefore predominantly low-income.

Q113. Who is in charge of evacuation plans?

A113. The facility does not have a detailed evacuation plan and looks to the municipality of Yonkers to provide direction in case of an emergency.

Q114. Do they have a workable evacuation plan?

A114. No, they do not have any evacuation plan at all

Q115. Do they have necessary transportation if they need to evacuate the premises?

A115. According to Sr. McGrory, this facility does not have adequate vehicles available to them and they would not have enough drivers. They may have access to one or two vans for wheel chair transport.

Mount St. Vincent Convent at 6301 Riverdale Avenue, Bronx NY 10471

Q116. What is the population and capacity of the home?

A116. Mount St. Vincent Convent, a private facility, is an assisted living facility for retired nuns. There are 50 residents at this facility: one woman is 68 years of age, seventeen are between 70 and 79 years of age, twenty-three are between 80 and 89 years of age, and one is over 95 years of age; forty-three of these women are able-bodied, two require wheelchairs and 5 five depend on walkers and canes. All have the mental capacity to cooperate with an evacuation procedure.

Q117. What is the economic status of the residents?

A117. The Sisters of Charity of New York take vows of poverty; the population of the home is therefore predominantly low-income.

Q118. Who is in charge of evacuation plans?

A118. The facility does not have a detailed evacuation plan and looks to the municipality of the Bronx to provide direction in case of an emergency.

Q119. Do they have a workable evacuation plan?

A119. No, they do not have any evacuation plan at all.

Q120. Are there special circumstances, which would interfere with an evacuation of this facility?

A120. Their building is located in the back of a college campus. Sr. McGrory indicated that if there were an incident during the school term, she believes the college would need to evacuate first, which would delay the transportation to safety of the convent residents.

Q121. Do they have necessary transportation if they need to evacuate the premises?

A121. Sr. McGrory stated that this facility does not have adequate transportation to evacuate their residents.

HOMELESS SHELTERS

Jan Peek House Shelter for the Homeless

Q122. Where is the Jan Peek Homeless Shelter and who was interviewed?

A122. On June 2, 2011, Clearwater researchers Greene and Kelland visited the Jan Peek Homeless Shelter on 200 North Water Street, Peekskill, NY 10566. Jan Peek House is operated by Caring for the Homeless of Peekskill, Inc. (CHOP), which was established in 1988 by Peekskill community leaders, clergy members and private citizens, and has helped thousands to overcome the obstacles of hunger and homelessness through its shelter and feeding programs. CHOP currently operates the Jan Peek House Shelter for the Homeless

Jan Peek House is a safe haven for the area's homeless men and women. The 19-bed facility is open 365 days a year, providing shelter, food and a conduit to comprehensive support services. Clients come with a broad range of issues. Some are elderly and have lost their jobs and their homes due to illness, while others are young and without families or other means of emotional and financial support.

On November 22, 2011 Clearwater researcher M. Greene interviewed Jeanne Blum, Executive Director for CHOP by telephone.

Q123. What are the eligibility requirements for residents at the Jan Peek Shelter for the Homeless?

A123. The Jan Peek Shelter provides housing for any adult, male or female, who is homeless. Demographic data, including age, race and ethnicity are reported to Westchester County, but not to the public.

Q124. What emergency planning does the Peekskill Shelter have?

A124. The Shelter has a copy of an emergency plan, although Ms. Blum stated that she "didn't know how feasible it is."

Q125. Does the Shelter practice emergency drills?

A125. Yes, the Shelter holds monthly fire drills to be sure client residents can leave the building promptly if necessary.

Q126. Has the Shelter done any planning or preparation specifically for a severe accident or incident at Indian Point?

A126. No, not specifically. The Shelter has, in fact, had to evacuate twice recently. Ms. Blum arranged to evacuate shelter residents immediately before Hurricane Irene to shelters in White Plains to avoid flooding, and again after the late October snowstorm, which was followed by a prolonged electricity outage at Jan Peek House. In both cases, providing transportation was difficult. In the case of Hurricane Irene severe flooding did occur, so this proactive preparation was important to assure the well being of clients and staff. In the second instance, the power outage lasted over a week. Ms. Blum observed that the Shelter seemed to be last on the list for power restoration and wondered if there was an Environmental Justice implication to this delayed service. She said that this was especially unfortunate because restoring power to a shelter means others that are without power would have a place to go, which they were unable to

provide. She also stated that finding transportation for an emergency evacuation due to a severe accident at Indian Point would be even more difficult.

Q127. Potassium iodide (KI) is a medication available to help protect people's thyroid gland in the event of a release of radioactive isotopes. Does your plan include the distribution of potassium iodide?

A127. No, the Shelter doesn't have any KI. Ms. Blum indicated she would like more information on KI, to learn how and where to get it. She was referred to the Peekskill and Westchester County Emergency Services. She also indicated that she will soon be taking a new position as Executive Director for the Westchester County Coalition for the Hungry and Homeless, and in that capacity will try to ensure that this information is shared with all the shelters and food pantries in the county. She will also look into instructions for emergency radios and any other protocols to make all these facilities safer.

AFFORDABLE HOUSING

Q128. Were there other groups or persons who lack access to private transportation that were interviewed?

A128. Yes, and as noted above, people in affordable housing units are less likely to have personal vehicles and are more reliant on public transit systems.

Q129. Who did the research on these groups and in which time period?

A129. MJ Wilson conducted interviews regarding Section 8 Housing in Ossining in July 2011; Manna Jo Greene and Sarah Kelland visited Courtyard Housing in downtown Peekskill on June 2, 2011.

Ossining: Section 8 Housing

Q130. Who conducted the following interviews and when?

A130. From June 30 to July 1, 2011, MJ Wilson conducted interviews with a sampling of services in the Village of Ossining, which is within the 10 miles radius of Indian Point in Westchester County, NY.

Q131. Where is the Ossining Section 8 Housing Administrative Office and who was interviewed there?

A131. On July 1, 2011, MJ Wilson met with Marilyn D. Geraldo, Director of the Section 8 Program in the Housing Choice Voucher Program office, located at 16 Croton Avenue, Ossining NY.

Q132. What is the population and capacity of the program?

A132. When MJ Wilson asked for information on population and capacity, she was given an outreach document stating,

“A limited number of applications will be accepted due to funding limitations. Priority will be given to individuals and families who, at the time of application, live or work or have been hired to work in the Village of Ossining. Other preferences which may apply include senior citizens age 62 and over; people with disabilities; veterans; working families whose household income is at or below 30% of the median income.”¹²

Q133. What is the economic status of the residents?

A133. The program is required to target those with income at or below the “Extremely Low Income Limits” category as shown in a chart provided by the program, attached as Exhibits CLE000036 and CLE000037. An example of this category is a 4-person household with an annual income of \$31,950 or less.

Q134. Who is in charge of evacuation plans?

A134. The department MJ Wilson spoke with manages the Section 8 housing provided by arrangements made with local landlords. As such, no emergency and evacuation plans are specifically required of these buildings. They come under the jurisdiction of the municipal emergency and evacuation plans for the Village of Ossining.

Q135. Do they have a workable evacuation plan?

A135. Ms. Geraldo indicated that the Village of Ossining did have emergency and evacuation plans. When MJ Wilson contacted the Village Manager’s Office, she was not able to get a copy of the plans.

Q136. Does this population have necessary transportation if they need to evacuate the housing provided to them by Section 8?

A136. This population would be dispersed throughout the Village and each person or family would be reliant on their own vehicles or public transportation.

Q137. If Section 8 residents have to shelter in place, do they have necessary supplies?

A137. It would not be possible to determine what portion of the population could viably shelter in place.

Q138. What is the economic and racial make-up of the population?

A138. The population skews to the income the program defines as “Extremely Low Income Limits”. Racial demographics were not made available.

Q139. Do they do evacuation drills?

A139. Ms. Geraldo was not aware of evacuation drills, but thought that it was unlikely that individual landlords would organize building evacuation drills, or that individual families practice them.

Q140. Where is the dedicated Section 8 Housing and who was interviewed there?

¹² The Village of Ossining Housing Choice Voucher Program (Section 8 Rental Assistance Program); <http://www.villageofossining.org/Documents/waitlist2011.pdf>

A140. On July 1, 2011, Marilyn Geraldo, Director of the Ossining Section 8 Housing, provided MJ Wilson information for Maple House, one of the few apartment buildings in Ossining that is exclusively Section 8 housing. This building is located at 15 Maple Place, Ossining NY 10562; the Program Director is Donna Bucci.

Q141. Who is in charge of evacuation plans?

A141. MJ Wilson was directed to the Building Department to find out if evacuation plans were required and, via a phone conversation, they said it wasn't their jurisdiction. The private management company responsible for the Section 8 Maple Street Housing Project buildings and safety is H & S Management of Bronxville, NY. When called by MJ Wilson, H & S Management did not return her phone call.

Q142. Has Clearwater undertaken research about the potential impact of a severe accident at Indian Point at homeless shelters and Section 8 housing?

A142. Yes

Q143. Please summarize the findings of such research.

A143. These facilities, by definition, are all or almost all low income. These facilities do not appear to have adequate means to evacuate in the event of a radiological incident at Indian Point and do not have the means to distribute potassium iodide.

EMERGENCY SERVICES

Rockland County Emergency Services

Q144. Who did Clearwater meet with at Rockland County Emergency Service?

A144. On July 7, 2011 Clearwater researchers Shapiro and Coltun met with Rockland County Emergency Services Director, Gordon Wren; Dan Greeley; Chris Jensen, Hazardous Materials Coordinator and Nick Longo, Jr., Emergency Planning & Public Information Coordinator at Rockland County Fire and Emergency Services, 35 Firemen's Memorial Drive, Pomona, NY.

Q145. What was discussed?

A145. The discussion focused on at-risk population: adult living, day care, prisons, and hospitals. Rockland County Emergency Services providers said they believed that evacuation might cause more harm than good when it comes to those who are bedridden or on respirators. Currently they did not have an accurate number of elderly patients located in various facilities in Rockland County.

Q146. When was the traffic plan for Rockland County last updated?

A146. There was an updated traffic plan in 2009.

Q147. Do they have adequate transportation for nursing home and day care population?

A147. They said they have a resource list of ambulettes and buses. They believed 5-6 buses would be needed for Haverstraw.

Also Rockland County has a Special Needs Database, which was set up this past spring (2011). Although it may not be complete, it lists those who are transportation-dependent, based on mental health or temporary dependency.

There is also a Hospital Information Network – to see where there are empty beds. This Network is used for State facilities like Summit Park and Rockland Psychiatric.

Q148. Do they offer emergency evacuation training? Is it mandatory for all facilities?

A148. Training for emergency evacuation is offered once a year. It is not mandatory.

Q149. How do they handle KI distribution?

A149. Currently residents and facilities within the entire County can come to pick up KI at the Emergency Services headquarters or at local Town Halls. They discussed that they want to mail out KI with the emergency preparedness booklet, and are awaiting Entergy's approval of this plan. If Entergy doesn't give their approval Rockland County Emergency Services are considering mailing KI independently.

In public schools, parents are given forms for their doctors to sign authorizing use of KI in the event of an emergency. Once the school receives the paperwork, it follows the students throughout their educational careers. The possibility exists for kids to opt out of getting KI once they have signed up for it, in the event a student develops an allergy.

Q150. How many people can Good Samaritan Hospital decontaminate?

A150. The Emergency Response staff at Good Samaritan can decontaminate about two people in an hour. Contaminated people should go to the reception centers, not hospitals. Police are equipped with radiation meters.

ROCKLAND COUNTY JAIL

Q151. When did Clearwater meet with officials at the Rockland County Jail?

A151. On September 24, 2011 Clearwater researcher Shapiro interviewed Chief Clark, Sgt. Dawson, Officer Price and Inspector Bomer.

Q152. What is the construction of the jail?

A152. The Rockland County Jail is made of brick and steel with only one or two operable windows.

Q153. What is the capacity of the jail?

A153. It has capacity for 300 inmates and usually holds around 240 inmates, including approximately 44 women, and is currently housing 22 women. It also holds minors, 16-18 years old, and is currently holding 20.

Q154. What percent of inmates are minorities and where do they come from?

A154. Approximately 60%-70% of the inmates are minorities. The inmate population comes mostly from Haverstraw and Spring Valley.

Q155. How long do the prisoners usually stay at the jail?

A155. The maximum term in the Rockland County Jail is one year. Approximately 50% of the inmates are awaiting trial. Most are in for drug offenses or related robberies and assaults. They also sometimes hold suspected murderers.

Q156. How many of the prisoners have medical or psychiatric issues?

A156. Since the state closed psychiatric centers 20 years ago, most psychiatric cases end up in the County Jail, including about 30% on psychotropic or other chemical dependency. Prisoners are classified by medical and criminal history.

Q157. What is the make-up of the staff and who determines staffing?

A157. The County Jail is a New York State institution and therefore the NYS Department of Corrections determines staffing. The current staff is made up of 135 line officers, 17 sergeants, 6 lieutenants, 2 captains, 1 chief.

Q158. Who decides what to do in an emergency, and in the event of an order to evacuate, does the staff know where they will have to take the prisoners?

A158. NYS Department of Corrections makes all decisions as to whether to evacuate or shelter in place. In the event of evacuation the state would tell them where to go; they would probably be sent to the Orange County Jail in Goshen, NY.

Q159. How long would it take to evacuate the prison? What vehicles are available for an evacuation?

A159. Rockland County Jail officials estimated it would take 8-10 hours to evacuate, if county and state buses were used and available. They said that if buses or other transportation are needed to evacuate other people, the jail would not be "first ones; not highest priority." The jail would be last priority to evacuate. If they had to rely on the jail's limited vehicles, it could take 2 or 3 times as long.

Q160. If the jail were ordered to shelter in place, what would happen?

A160. If the jail were told to shelter in place, they would have to shut down air exchanges; in summer it will get very hot and in winter very cold. They have a generator and energy supply that would last for 3 days before needing refueling. There is enough food for 2 weeks. Since they rely on the public water supply, if the water is shut off or contaminated, they will have to move. They are located relatively close to the Lake DeForest Reservoir; however, if there were a nuclear emergency, the Reservoir may be contaminated.

Q161. Does the jail have potassium iodine (KI) on site?

A161. They do not have any potassium iodide (KI), nor did they even know what it was.

Q162. What kind of training or preparation does the jail do for an evacuation?

A162. They hold fire drills once a week, during which time they take all the inmates into the recreation area. Over the summer an emergency training class was provided in Westchester by the National Sheriff's Association via Homeland Security.

Summary and Conclusions:

Q163. From this research, what observations has Clearwater made about the potential for disproportionate impacts on communities of color and low income?

A163. One thing that is apparent is that the level of emergency preparedness varies considerably among the various facilities, with some well-prepared with drill, clear plans and potassium iodide on hand for distribution in the event of a radiological release from Indian Point. Much more consistent outreach is needed to assure clarity about emergency plans, clear channels of communication and reliable communications equipment and potassium iodide distribution. The other point that was clear is that people who lack personal transportation and need to depend on buses will be at a severe disadvantage. People who are institutionalized because they need assistance with mobility or have severe cognitive disorders, especially the elderly, will be extremely difficult to evacuate. Shelter and transportation deficits are evident for all institutionalized populations, from people in homeless shelters or nursing homes to jails and prisons. Reuniting children with their parents is also problematic for those without personal transportation, especially when bus routes are overridden by emergency orders, and this problem will be more prevalent for low-income families.

Q164. From these interviews, what does Clearwater believe can be done to reduce the potential impacts on the local Environmental Justice community as part of the license renewal for Indian Point?

A164. While Clearwater questions the viability of any emergency evacuation for everyone within the 10 and 50-mile radius area around Indian Point, nonetheless, much better outreach and disaster preparedness is needed for institutions that house poverty-stricken or low-income, disabled, minority and non-English-speaking populations. Clear instructions known and understood by all staff and by residents to the greatest extent possible are essential to assure safety and a coordinated response to an emergency at Indian Point. Reserve ambulances, buses and other transportation are also needed. Plans should take into consideration the well-documented need for staff to reunite with their families.

Q165. Is there anything else you wish to say pertinent to the potential environmental or public health impacts of relicensing Indian Point Units 1 and Unit 2 for an additional 20 years?

A165. Clearwater's contention EC-3A states that both the Environmental Report (ER) prepared by Entergy and the NRC Staff's Supplemental Final Environmental Impact Statement (SFEIS) do not adequately address disproportionate impacts on communities of color and low income from relicensing Indian Point for another 20 years. Neither Entergy nor NRC staff undertook an in-depth inquiry into the potential impacts of relicensing Indian Point. They did not look at the potential health impacts from planned and unplanned releases of radiation on EJ populations; disproportionate impacts on members of EJ populations who consume fish tissue containing

PCBs, mercury and other toxins, in addition to radioactive isotopes introduced from the leaking of radioactive isotopes contaminating groundwater under the plant into the Hudson River; nor did they consider potential cumulative exposures from the cluster of industrial facilities located between Indian Point and the City of Peekskill located immediately to the north or on EJ populations in Ossining to the south. Neither did they consider the disproportionate impacts of having limited access to transportation, limited English proficiency, impairment of cognitive or sensory functions needed to follow instructions, or limited mobility, particularly of the elderly, in the event of a severe accident or incident at Indian Point that required evacuation to prevent or reduce exposure to radioactivity.

Neither the ER nor the SFEIS considered cumulative effects of multiple sources of pollution on EJ populations. For example, can people whose immune system is compromised by eating Hudson River fish containing PCBs and other toxic substances, and breathing even small amounts of dioxin and furans emitted by the Westchester County waste incinerator at Charles Point and other emissions from the industrial facilities along the South Street Industrial Park be more vulnerable to planned releases of radioactivity from Indian Point.

Neither the ER nor the SFEIS used any of the established methodologies to evaluate potential Environmental Justice impacts. Paul Mohai, Ph.D., of the University of Michigan and Robin Saha of the University of Montana have conducted extensive research on the subject of Environmental Racism and assessing environmental justice impacts.¹³ The New Jersey Department of Environmental Protection Cumulative Impacts Subcommittee to the Environmental Justice Advisory Council (Exhibit CLE000026) recommends utilizing the Faber & Krieg Model of Relative Risk Ranking (Exhibit CLE000027),¹⁴ which lists 16 categories (shown below) of potential sources of exposure, ranks them by severity, and assesses community vulnerability.¹⁵

¹³ http://snre.umich.edu/sites/snre.umich.edu/files/faculty/pmohaicv-July%202011_0.pdf and http://www.health.umt.edu/schools/pch/faculty_research/facultyDetails.php?ID=734

¹⁴ NJ DEP, "Strategies for Addressing Cumulative Impacts in Environmental Justice Communities"; March 2009. www.state.nj.us/dep/ej/docs/ejac_impacts_report200903.pdf

¹⁵ Faber & Krieg, [Unequal Exposure to Ecological Hazards: Environmental Injustices in the Commonwealth of Massachusetts](http://ehp03.niehs.nih.gov/article/submitArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.02110s2277); Table 5. <http://ehp03.niehs.nih.gov/article/submitArticle.action?articleURI=info%3Adoi%2F10.1289%2Fehp.02110s2277>

Table 5. Environmental hazard point system.

Type of hazardous facility or site	Points for rating severity of each facility or site
DEP hazardous waste site (general)	1
DEP hazardous waste site (Tier I-II)	5
U.S. EPA NPL (Superfund) waste site	25
Large power plant—top five polluter	25
Small power plant	10
Proposed power plant	5
TURA industrial facility	5
Municipal incinerator	20
Resource recovery facility	10
Incinerator ash landfill	5
Demolition landfill	3
Illegal site	5
Sludge landfill	5
Tire pile	5
Municipal solid waste landfill	5
Trash transfer station	5

In particular, Faber notes that in Massachusetts, “Although they do not typically produce dangerous air pollution, the state's nuclear power plants continue to pose a threat of accidental radiation releases and are responsible for 99% of the high-level radioactive waste”¹⁶ – which, in the case of Indian Point, is stored on site.

In 2009-10 Clearwater met with Citizens for Equal Environmental Protection (CEEP) and Peekskill community members to form the Peekskill Environmental Justice Council. Following an iterative process of community-defined research and review, a Community-Based Environmental Justice Inventory (CBEJI) was published in March 2011. The CBEJI findings regarding pollution sources, health and Angler Survey results are as follows.

(11.1) Findings: The City of Peekskill and its surrounding area have a number of unique physical and demographic characteristics that make it highly vulnerable to the risks of climate change. Based on 2000 Census data, Peekskill is predominantly a community of color consisting of multi-ethnic populations, with the median household income found in the areas of high black and Hispanic demographics. Covering an area of approximately 4.5 square miles, Peekskill is burdened with one hazardous waste handler and two hazardous and solid waste facilities all housed in a predominantly Hispanic populated area. This report focused on four major and minor air polluters, 17 industrial and municipal surface water pollution sources and five toxic release sites (see Table 1 below). The neighborhoods within a 12.5-mile radius of downtown Peekskill (an area of 491 square miles) are home to at least:

- 7 hazardous waste facilities,
- 19 solid waste facilities,
- 27 major and minor air polluters,
- 87 industrial surface water sites,
- 20 municipal surface water sites,
- 15 toxic release facilities,
- 47 hazardous waste handlers, and

¹⁶ *Ibid.*, endnote 52.

- 23 toxic release sites.¹⁷

The majority of toxic release sites, hazardous waste sites, solid waste facilities and wastewater facilities are located in predominantly black communities.

Any one of these facilities alone may cause minor impacts to surrounding communities, but collectively the impact is likely to be more significant due to cumulative and potentially synergistic effects. The Westchester County Waste-to-Energy Incinerator (also called the Resource Recovery facility or RESCO) at Charles Point is a known source of dioxins, benzofurans, heavy metals and other emissions. The Frit Pit, now closed, was the disposal site for ash from the Charles Point incinerator and may cause impacts to the nearby Sprout Creek, which flows into Annsville Creek just north of Peekskill, and then into the Hudson River. The Peekskill Sanitary Sewer District (SD) Sewage Treatment Plant (STP), discharges effluent into the Hudson River and odors have been reported as a frequent problem. The NDL Hazardous Waste Site, operated by NDL Organization, is listed as a Hudson Hazardous Waste (HW) Facility, Inc. and the Karta Transfer Station, a Solid Waste Facility, are major sources of contamination to local populations. The BASF Corp. Peekskill Pigments Plant on Lower South St. includes approximately 40 buildings located on approximately 15 acres of land; it produces pigments consisting primarily of titanium-coated mica and iron oxide coated mica, as well as bismuth oxychloride products. This facility has a Title V permit to emit limited quantities of chemicals and volatile organic compounds (VOCs). Because of these toxic releases, it is listed as both Hudson Air State Facility (ASF) and an ATV Facility. The City of Peekskill is currently in the process of planning to “green” the South Street Industrial Park, where several of these facilities are located.

...The Hudson River is a 200-mile PCB Superfund site. In addition, water and sediments in the Peekskill area are contaminated with low levels of tritium, strontium-90 and other radioactive isotopes that have been discharged or leaked from Indian Point Nuclear Power Facility in Buchanan. Indian Point also causes significant fish kill due to impingement and entrainment in once-through cooling system, and thermal pollution. There are also four fossil fuel power plants near Peekskill, including Bowline in Haverstraw (which alternates between oil and natural gas), and the Lovett plant (which burned coal and is now closed) in Tompkins Cove.—North of these are Danskammer and Roseton in the Newburgh area, causing similar impacts to fish as those from Indian Point, plus releasing carbon dioxide, particulate and other air emissions. Overall, 94 facilities in Peekskill report to EPA regarding possible or actual toxics in processing, manufacturing, handling, transportation or waste disposal.

Beyond current and historic toxic or hazardous releases to air, water and soil from industry, energy and waste facilities, there are also issues of traffic emissions, as well as releases from Sewage Treatment Plants that include pharmaceuticals, caffeine and a host of chemicals that can disrupt endocrine function in humans and aquatic species.¹⁸

If Clearwater and members of the Peekskill community can undertake such a careful look, surely Entergy and the NRC staff can do a more rigorous assessment than they have.

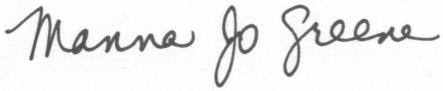
Q166. Finally, if necessary, are all the Clearwater researchers available for direct and cross-examination?

A166. Yes.

¹⁷ Data provided to Hudson River Sloop Clearwater and Skidmore GIS team by NYS DEC Office of Environmental Justice is on file at Clearwater.

¹⁸ http://www.clearwater.org/wp-content/images/2011/03/CBEJI_FINAL-DRAFT-1-30-11-for-printing.pdf
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In accordance with 28 U.S.C. § 1746, I state under penalty of perjury that the foregoing is true and correct:

A handwritten signature in cursive script that reads "Manna Jo Greene". The signature is written in black ink on a light-colored background.

Manna Jo Greene, Environmental Director
Hudson River Sloop Clearwater, Inc.

Date: December 22, 2011