

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3)
	ASLBP #: 07-858-03-LR-BD01
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**Exhibit CLE000009
Submitted 12/22/11**

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

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

**INITIAL PREFILED WRITTEN TESTIMONY OF
STEPHEN FILLER REGARDING
CLEARWATER’S ENVIRONMENTAL JUSTICE CONTENTION EC-3A**

Q1. What is your name and in what capacity are you providing testimony today?

A1. My name is Stephen Filler. I am an attorney and am providing testimony in my individual capacity and as a Board Member for Hudson River Sloop Clearwater

Q2. Have you reviewed the Radiological Emergency Plans prepared by Westchester County, Rockland County, and New York State?

A2. Yes, I have reviewed the copies of these plans that Clearwater has received from Entergy.

Q3. Does the Westchester County Emergency Plan imply that there could be disparate impact upon environmental justice populations?

A3. Yes. The Westchester County Emergency Plan states that shelter in place may be appropriate for "those who are not readily mobile" at up to 5 rem in normal circumstances and 10 rem under "unusually hazardous circumstances." Westchester County, Westchester County Emergency Radiological Emergency Plan for the Indian Point Energy Center (September 2008) at IPEC00200116. Attached as Exhibit CLE000014. In contrast the dose limit for the general population is 5 rem, even under "unusually hazardous circumstances." *Id.* Recognizing the disparity, the section providing this information is titled "selective shelter in place." *Id.* This document even provides a definition of "shelter in place" as "an action that . . . would be taken by persons who should be evacuated but cannot because of . . . transportation resource shortfalls [or] special populations (prisons, nursing homes etc.)." *Id.* at IPEC00200120. The document also states that while the general population is being evacuated in a general emergency, shelter in place is an option for the institutionalized mobility impaired, hospitals, and mental health facilities. *Id.* at IPEC00200291. A general emergency is defined as an event where "releases of radioactive materials can reasonably be expected to exceed federal exposure limits for more than the immediate plant area." *Id.* at IPEC00200329 (emphasis in original). Underlining that 10 rem is an excessive dose, the document states that the EPA protective action guideline is 5 rem dose equivalent to the thyroid. *Id.* at IPEC00200391. Finally, an extract from an EPA dose assessment manual makes clear that generally 1 rem total equivalent dose is the limit at which general populations

will normally be evacuated, while those who are not mobile may not be evacuated until they may be subject to five times that dose. *Id.* at IPEC00200432. Additionally, in a general emergency, the plan recognizes that some residents will not be evacuated, but medical facilities will have to discontinue use of tap water and ration meals. *Id.* at IPEC00200870. It is unclear how replacement supplies of water and food would be provided. The plan lists two hospitals within 10 miles of Indian Point. *Id.* at IPEC00200873. The shelter-in-place guidelines recognize that some ventilation will be necessary to maintain temperatures within a safe range. *Id.* at IPEC00200875. The plan also provides a list of the numerous nursing homes close to the plant. *Id.* at IPEC00200878-89. It also supplies a similar list of schools. *Id.* at IPEC00200628-30.

Thus the Westchester County Emergency Plan expressly recognizes that there is a likelihood that environmental justice populations, including prison populations, and physical and mentally disabled, immobile and infirm populations, will be treated disparately by being sheltered in place when they “should be evacuated” and are likely to be exposed to rem limits far in excess of what the evacuated population would be exposed to. Further, there is no plan for how these populations will receive water or food, and it is unclear how the shelters will be safely ventilated.

Q4. Does the Rockland County Emergency Plan imply that there could be disparate impact upon environmental justice populations?

A4. Yes. The Rockland County Emergency Plan provides a list of “special facilities”, including schools, nursing homes, the county jail and a hospital. Rockland County, Rockland County Radiological Emergency Response Plan (2008) at IPEC00200933, Attached as Exhibit CLE000018 . It also states that “people without transportation” will be evacuated by buses, which will follow routes listed in a public information brochure. *Id.* at IPEC00200940. It defines “selective Shelter-in-place” as an option for those who “could not be safely evacuated,” including “those who have been designated medically unable to evacuate as well as those individuals who require constant, sophisticated medical attention or are incarcerated.” *Id.* at IPEC00200992. It states that the primary locations for selective shelter-in-place are the Helen Hayes Rehabilitation Hospital in West Haverstraw, the Robert E. Yeager Health Center in Pomona, and the Country Correctional Facility in New City. *Id.* It recommends distribution of potassium iodide to incarcerated populations, nursing home patients and staff, and hospital patients and staff, “where evacuation is not possible or feasible.” *Id.* at IPEC00201102. For nursing homes, the plan relies upon plans developed by each individual facility. *Id.* at IPEC00200998-99. For schools, the plan estimates that 695 buses will be required, but shows that only 470 buses are available. *Id.* at IPEC00201077. Therefore a second bus trip into the evacuation area would be needed. *Id.* The plan also identifies 4,629 individuals in the ten mile EPZ who are “transit dependent,” i.e. “do not have their own means of evacuation.” *Id.* at IPEC00201078. The same buses used for schools are also used for the “transit dependent” population, therefore they must wait until after the school evacuation is complete. *Id.* at IPEC00201078. Although those people are supposed to shelter-in-place prior to arrival of the bus, it is unclear how this is possible. *Id.* In addition, the plan identifies 1,058 mobility-impaired individuals in special facilities, and 60 non-institutionalized mobility impaired individuals in the 10 mile EPZ. *Id.* at IPEC00201078-79. Evacuation of this group of people also would appear to require many of the same vehicles used to evacuate the students and other “transit dependent” populations, and therefore they too must await until after the school evacuation is complete. *Id.* It is again unclear how this groups will shelter in place, and whether or how an up-to-date list of the location of non-institutionalized mobility-impaired individuals would be maintained.

Thus the Rockland County Emergency Plan expressly recognizes that there is a likelihood that environmental justice populations, including those are who medically unable to be evacuated, in

nursing homes or incarcerated will be treated disparately by being sheltered in place when they should be evacuated and are likely to be exposed to rem limits far in excess of what the evacuated population would be exposed to. In addition, while there is an understanding that there are segments of the population who will need to be evacuated because they do not have their own private transport (presumably largely for economic or health related reasons), it is unclear whether there are adequate resources to evacuate these populations or how they will be sheltered in place while awaiting transport.

Q5. Does the New York State Emergency Plan imply that there could be disparate impact upon environmental justice populations?

A5. Apart from prisons, the New York State Emergency Plan does not directly state that selective shelter-in-place will be used. It does confirm that evacuation of the general population will occur when 1 rem of total effective dose can be avoided. New York State Radiological Emergency Preparedness Plan for Commercial Nuclear Power Plants (April 2009) at IPEC00201252. Exhibit CLE00015. It also provides a list of hospitals with the ability to treat contaminated individuals. *Id.* at IPEC00201305-23. It also contains the guidelines for deciding when to recommend taking potassium iodide pills, which contemplate using shelter-in-place for “members of the public that would otherwise have been evacuated but are directed to shelter-in-place because evacuation is not feasible.” *Id.* at IPEC00201377. It also refers separately to “captive populations within the evacuated area”. *Id.* In the recovery sampling plan, the document prioritizes surveying of “special facilities” (i.e. hospitals, nursing homes, prisons, schools, etc.) where protective action guidelines have been exceeded but evacuation has not occurred. *Id.* at IPEC00201606.

Thus the New York State Emergency Plan does not indicate how environmental justice populations, including low income populations without private vehicle ownership and medically infirm, immobile and disabled, will be protected in an event of a radiological emergency.

Q6. Do other documents you have reviewed imply that there could be disparate impact upon environmental justice populations?

A6. Yes. A study done for Entergy estimating the time to evacuate the general population assumed that so called “special facilities” such as prisons and hospitals will shelter in place. For Westchester, those facilities are the VA Hospital in Montrose and Sing Sing. KLD Associates, Inc., Indian Point Energy Center Evacuation Time Estimate (October 2004) at 2-8 (Relevant Extract *available on ADAMS at ML032510774*). Exhibit CLE000017.

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 blue ink, appearing to read "Stephen Filler", is written on a light blue grid background. A vertical line is drawn to the right of the signature.

Stephen Filler
Date: 20 December 2011