



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I**  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

July 12, 2012

Ms. Marilyn Elie  
[Home address deleted]  
Under 10 CFR 2.390]

Dear Ms. Elie:

During the U. S. Nuclear Regulatory Commission's (NRC) Annual Assessment meeting on May 17, 2012, regarding the Indian Point nuclear power plants, you provided the NRC Region I Administrator, Bill Dean, questions and views regarding a number of topics related to NRC regulations and oversight of Indian Point. I want to take this opportunity to provide a response.

You discussed the adequacy of emergency planning at the nation's nuclear plants, including concerns regarding aspects of the NRC's revised emergency preparedness (EP) rule as it relates to Indian Point. The NRC continues to examine EP issues in light of the events in Japan. The NRC worked closely with the Federal Emergency Management Agency (FEMA) to revise and improve the NRC's existing EP rule; those revisions were approved in August 2011. Many of the revised aspects of the EP rule are based on a 2005 top-to-bottom review that indicated areas for improvement in emergency planning that include backup means for alerting the public and for updating evacuation time estimates when population changes warrant. Additionally, an important aspect of the new EP rule formalized security orders that U.S. plants put in place after the events of 9/11. The rule also adds security scenarios to emergency exercises.

You provided your views regarding the adequacy of emergency rescue and recovery actions, including the safeguarding of food and water sources following a potential event that releases radioactive material to the environment. The NRC is one of several federal agencies that would be involved in a national response to a domestic radiological event such as a severe accident at a nuclear power plant. While the NRC is responsible for ensuring that licensees have adequate onsite emergency plans at nuclear power plants such as Indian Point, the State and local governments have responsibility to take appropriate actions to protect the lives and property of their citizens. There are emergency plans in place to protect public health and safety from the effects of radioactive contamination within the 50-mile ingestion exposure pathway Emergency Planning Zone (EPZ) and the 10-mile plume exposure pathway EPZ. FEMA is the Federal Agency responsible for approving and assessing the State and local emergency plans. These plans are exercised and evaluated every two years at both the State and local level. To review past FEMA evaluation reports that best describe the activities conducted during an exercise, please visit the website: <http://www.nrc.gov/about-nrc/emerg-preparedness/related-information/fema-after-action-reports.html> Additionally, following a radiological event, several federal agencies including the NRC, Department of Energy (DOE) and the Environmental Protection Agency (EPA) collectively establish a Federal Radiological Monitoring and Assessment Center for providing technical assistance to the State and local governments in assessing and monitoring the potential environmental impacts of the incident.

You also provided some questions and your views regarding the April 2012 Government Accountability Office (GAO) report that assessed the NRC's oversight of nuclear power reactors' decommissioning funds, as it applies to Indian Point. Overall, the GAO found that the NRC has strengthened its oversight of decommissioning funds. However, the GAO also found that several weaknesses remained. The NRC's response to the GAO report, as well as to Congressman Edward J. Markey, will be made publically available when finalized.

I also want to address your reference to our conclusions regarding radiation impacts described in the 1996 Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants. As discussed in Section 4.6 ("Radiological Impacts of Normal Operations") of the GEIS, the 20 years of additional operation of a nuclear power plant results in an estimated cancer risk to the average individual member of the public that is much less than  $1 \times 10^{-6}$  (one in one million). GEIS § 4.6.2.5. This determination, along with other considerations, supports the NRC's conclusion in the GEIS that the significance of radiation exposures to the public attributable to operation of a plant following license renewal will be small at all sites, as a generic (Category 1) determination. The finding for offsite radiological impacts (collective effects) in Table B-1 of 10 CFR Part 51 which contains the statement about "12 cancer fatalities..." is a calculated value for each additional 20-year power reactor operating term, representing the dose resulting from the uranium fuel cycle (including, e.g., radon releases from uranium mines and mill tailing piles) except high-level waste and spent fuel disposal. This calculated value does not represent real expected deaths.

Radiation doses to members of the public from the normal operations of Indian Point Units 2 and 3 during the license renewal period were evaluated by the NRC staff as part of the license renewal process and reported in the Final Supplemental Environmental Impact Statement (SEIS) for license renewal of Indian Point Units 2 and 3, in Section 4.3, Radiological Impacts of Normal Operations. In that section, the staff reviewed the radiological impacts of Indian Point Units 2 and 3 and concluded that the radiological impacts to members of the public are SMALL and within the radiological impacts discussed in the GEIS.

Finally, you had some specific questions regarding the NRC's request for additional information to Entergy regarding Entergy's December 2010 decommissioning cost estimate at Indian Point Unit 3. Entergy's response (ML111020400) and NRC's evaluation of that decommissioning cost estimate submittal (ML11147A004) are publically available for your review. You should also be aware that Entergy submitted its 2011 decommissioning funding status for the Indian Point units (ML12093A382). The NRC has completed its review and determined that the amount of decommissioning financial assurance provided by Entergy for the Indian Point plants was equal to or greater than the minimum required amount based on the submitted site-specific cost estimates (ML12165A607).

Thank you for your interest in these matters.

Sincerely,

*/RA/*

Mel Gray  
Branch Chief, Projects Branch 2  
Division of Reactor Projects, Region I

You also provided some questions and your views regarding the April 2012 Government Accountability Office (GAO) report that assessed the NRC's oversight of nuclear power reactors' decommissioning funds, as it applies to Indian Point. Overall, the GAO found that the NRC has strengthened its oversight of decommissioning funds. However, the GAO also found that several weaknesses remained. The NRC's response to the GAO report, as well as to Congressman Edward J. Markey, will be made publically available when finalized.

I also want to address your reference to our conclusions regarding radiation impacts described in the 1996 Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants. As discussed in Section 4.6 ("Radiological Impacts of Normal Operations") of the GEIS, the 20 years of additional operation of a nuclear power plant results in an estimated cancer risk to the average individual member of the public that is much less than  $1 \times 10^{-6}$  (one in one million). GEIS § 4.6.2.5. This determination, along with other considerations, supports the NRC's conclusion in the GEIS that the significance of radiation exposures to the public attributable to operation of a plant following license renewal will be small at all sites, as a generic (Category 1) determination. The finding for offsite radiological impacts (collective effects) in Table B-1 of 10 CFR Part 51 which contains the statement about "12 cancer fatalities..." is a calculated value for each additional 20-year power reactor operating term, representing the dose resulting from the uranium fuel cycle (including, e.g., radon releases from uranium mines and mill tailing piles) except high-level waste and spent fuel disposal. This calculated value does not represent real expected deaths.

Radiation doses to members of the public from the normal operations of Indian Point Units 2 and 3 during the license renewal period were evaluated by the NRC staff as part of the license renewal process and reported in the Final Supplemental Environmental Impact Statement (SEIS) for license renewal of Indian Point Units 2 and 3, in Section 4.3, Radiological Impacts of Normal Operations. In that section, the staff reviewed the radiological impacts of Indian Point Units 2 and 3 and concluded that the radiological impacts to members of the public are SMALL and within the radiological impacts discussed in the GEIS.

Finally, you had some specific questions regarding the NRC's request for additional information to Entergy regarding Entergy's December 2010 decommissioning cost estimate at Indian Point Unit 3. Entergy's response (ML111020400) and NRC's evaluation of that decommissioning cost estimate submittal (ML11147A004) are publically available for your review. You should also be aware that Entergy submitted its 2011 decommissioning funding status for the Indian Point units (ML12093A382). The NRC has completed its review and determined that the amount of decommissioning financial assurance provided by Entergy for the Indian Point plants was equal to or greater than the minimum required amount based on the submitted site-specific cost estimates (ML12165A607).

Thank you for your interest in these matters.

Sincerely,  
 /RA/  
 Mel Gray  
 Branch Chief, Projects Branch 2  
 Division of Reactor Projects, Region I

DOCUMENT NAME: G:\DRP\BRANCH2\Bickett\Marilyn Elie Letter rev final.docx  
 ADAMS ACCESSION NUMBER: **ML12194A271**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	HQ/DLR/RERB	RI/PAO	RI/SLO	RI/DRP
NAME	BBickett	KFolk/via email	DScrenci	NMcNamara/dbt for	MGray
DATE	06/28/12	06/28/12	06/28/12	06/28/12	07/12/12

OFFICIAL RECORD COPY

Distribution:

W. Dean

D. Lew

D. Roberts

J. Clifford

C. Miller

P. Wilson

N. McNamara

D. Tift

D. Screnci

N. Sheehan