

IPRenewal NPEmails

From: John J. Sipos [John.Sipos@ag.ny.gov]
Sent: Tuesday, August 20, 2013 5:45 PM
To: Turk, Sherwin; 'Bessette, Paul M.'; Harris, Brian; Roth(OGC), David; O'Neill, Martin; Phillip Musegaas; 'Deborah Brancato'; 'Mannajo@clearwater.org'; 'rwebster@publicjustice.net'
Cc: Kathryn Liberatore; Laura Heslin; 'Snook, Robert D.'
Subject: follow up to yesterday's consultation conference
Attachments: 2013 08 20 NYS letter re Aqueous Release final.pdf; 2013 08 20 NYS Letter re Price Anderson final.pdf

Dear Counsel:

Thank you for participating in yesterday's consultation conference call initiated by the State of New York concerning potential additional contentions about aqueous releases and Price Anderson coverage for the actual decontamination of affected areas following a severe accident & federal agency responsibility for off-site decontamination and remediation oversight. After consideration of the issues discussed during the call, we have elected to set forth the State's concerns and questions in the accompanying letters to NRC. We look forward to NRC's response.

John Sipos
Assistant Attorney General
tel. 518-402-2251



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From: John J. Sipos

Created By: John.Sipos@ag.ny.gov

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Files	Size	Date & Time
MESSAGE	693	8/20/2013 5:45:31 PM
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2013 08 20 NYS letter re Aqueous Release final.pdf		97588
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STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

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DIVISION OF SOCIAL JUSTICE
ENVIRONMENTAL PROTECTION BUREAU

August 20, 2013

Via Electronic Mail

Sherwin E. Turk, Esq.
Office of the General Counsel
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop: O-15 D21
11555 Rockville Pike
Rockville, MD 20852-2738

Re: Aqueous Releases Following Severe Accidents at Indian Point Facilities

Dear Sherwin:

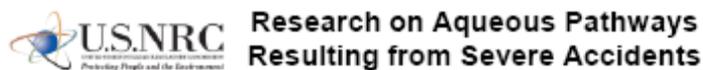
We write to request additional information regarding NRC's examination of potential aqueous releases following a severe accident, both for the Indian Point facilities and on an agency-wide basis. As we discussed on our conference call yesterday, the severe accident mitigation alternatives ("SAMA") analysis for Indian Point does not consider aqueous releases. Significant new information shows that, in light of the ongoing aqueous releases at Fukushima, aqueous releases should be considered in both the analysis of the impacts associated with a severe accident at Indian Point and the SAMA analysis for Indian Point.

On April 27, 2013, the State submitted supplemental comments on the draft supplement to the December 2010 Final Supplemental Environmental Impact Statement ("FSEIS").¹ The State's April 2013 supplemental comments identified and discussed new and significant information. The State requested that NRC Staff examine the new and significant information in

¹ The State had previously submitted comments on March 28, 2012 and August 20, 2012.

the supplement to the environmental impact statement.

The State's April 2013 comments cited a presentation by the Director of NRC's Research Office from NRC's March 2013 Regulatory Information Conference. Based on that presentation, it is clear that the MACCS2 computer code used to examine severe accidents lacks the ability to analyze the impacts to water resources and the environment resulting from aqueous radiological releases accompanying such an accident. International Session - Post-Fukushima Research, Brian Sheron, Director, NRC Office of Nuclear Regulatory Research (March 13, 2013).² In slide 7 of that presentation (reproduced below), NRC notes (1) aqueous releases occurred during Fukushima accident, and (2) current models do not address aqueous release pathways.



- Aqueous release occurred during Fukushima accident
- Current models do not address aqueous release pathways
- RES is starting a program to assess:
 - Containment failure modes that could lead to aqueous releases
 - Source term modeling for aqueous pathways
 - Transport of contaminated water and its radiological consequences: surface water bodies, groundwater
- Expected outcome: whether potential aqueous releases warrant further mitigating action.

The term “current models,” as used in the slide, would include computer codes such as MACCS2, which Entergy and NRC Staff used to analyze severe reactor accidents in connection with the applications for renewed operating licenses for the Indian Point facilities.

In addition to the March 2013 presentation, the State's April 2013 comments also included recent reports regarding continuing radiological aqueous releases at the Fukushima site

² The document is available at <https://ric.nrc-gateway.gov/m/Docs/Abstracts/sheronb-rev1-hv-w15.pdf>.

– two years after the start of the severe accidents that damaged four of the Dai-ichi nuclear facilities. The State’s comments explained that, although these releases had not been reflected yet in publically-available NRC documents, according to news articles, the receptacles holding radiation contaminated fluids at the Fukushima site have leaked and have released radiological material to the environment. *See, e.g., Damaged Nuclear Plant in Japan Leaks Toxic Water*, Martin Fackler, New York Times (April 6, 2013); *Japan Nuclear Plant Finds New Leaks*, Mari Iwata, Wall Street Journal (April 7, 2013); *Nuclear Plant in Japan Has Leak in Other Tank*, Hiroko Tabuchi, New York Times (April 9, 2013); *Fukushima Nuclear Plant is Still Unstable, Japanese Official Says*, Hiroko Tabuchi, New York Times (April 10, 2013).

More recently, on August 1, 2013, NRC made the transcript of a December 2012 Advisory Committee on Reactor Safeguards (“ACRS”) subcommittee meeting publicly available. July 30, 2013 Memorandum to ACRS Members regarding Certified Minutes of the ACRS Reliability and PRA Subcommittee Meeting on Level 3 PRA on December 4, 2012 (ML13211A477) (“ACRS Transcript”). At that meeting Alan Kuritzky from NRC’s Office of Research, Division of Risk Analysis, explained

Aqueous transport and dispersion of radioactive materials, this is something very big given the Fukushima event, but something we simply are not going to address in our study, but the Agency as a whole is looking into it.

ACRS Transcript at 43:17-21.

An article appearing in today’s New York Times further underscores the importance of the issue. *Fukushima Plant Has 300-Ton Water Leak*, Associated Press, New York Times (Web Edition) (August 20, 2013) (“The operator of Japan’s tsunami-crippled nuclear power plant said Tuesday that about 300 tons (300,000 liters, 80,000 gallons) of highly radioactive water have leaked from one of the hundreds of storage tanks there — its worst leak yet from such a

vessel.”).

Aqueous releases following a severe accident would be of particular concern at Indian Point, which sits on the Hudson River. Aqueous releases have the potential to contaminate the Hudson River’s waters, riverbanks, riverbed and sediment, adjacent freshwater tidal wetlands, and fish and other aquatic organisms and impacts to the environment and human health could exceed the impacts flowing from the aqueous releases into the Pacific Ocean at Fukushima. The unique, site-specific conditions at Indian Point warrant an analysis of the aqueous release issue in the context of the SAMA analysis.

NRC’s acknowledgement of the continuing aqueous releases at Fukushima and the importance of analyzing aqueous release pathways in the context of severe accidents constitutes new and significant information. Under 10 C.F.R. § 51.92(a)(2), NRC Staff is obligated to “prepare a supplement to a final environmental impact statement . . . if . . . [t]here are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” *See also* 40 C.F.R. § 1502.9(c)(1)(ii); *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 370-78 (1989) (even after initial approval of an environmental impact statement (“EIS”), an agency must continue to evaluate the environmental consequences of the project and supplement the EIS as necessary).

The information is new because the presentation was made publically available after NRC Staff issued its FSEIS in December 2010. It is significant because an analysis of aqueous releases would lead to an increase in severe accident costs, which could lead to the consideration of mitigation measures designed specifically to address aqueous releases or render additional mitigation measures cost-beneficial in the SAMA analysis. NRC Staff’s failure to identify and analyze the impacts and costs associated with aqueous release following a severe accident and

the alternatives to mitigate such impacts in the FSEIS supplement is not consistent with the National Environmental Policy Act.

We appreciate your cooperation and look forward to receiving a description of NRC's analysis of aqueous releases in the wake of the Fukushima accidents. Please also indicate whether NRC plans to supplement the FSEIS for the renewal of the operating licenses for the Indian Point facilities to include a site-specific analysis of the impacts of aqueous releases flowing from a severe accident and the means to mitigate such impacts. Based on our conversation yesterday, we trust that you will forward this letter and our request to the appropriate individuals including Brian W. Sheron, Director, Office of Nuclear Regulatory Research and John Lubinski, Director, Division of License Renewal.

Sincerely,

s/

John J. Sipos
Kathryn Liberatore
Assistant Attorneys General
(518) 402-2251

cc: Paul Bessette, Esq., counsel for Entergy
Robert D. Snook, Assistant Attorney General, State of Connecticut
Phillip Musegaas, Esq., counsel for Riverkeeper
Manna Jo Greene, Clearwater



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ENVIRONMENTAL PROTECTION BUREAU

August 20, 2013

Via Electronic Mail

Sherwin E. Turk, Esq.
Office of the General Counsel
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop: O-15 D21
11555 Rockville Pike
Rockville, MD 20852-2738

Re: Oversight and Funding of Offsite Decontamination
Following a Severe Accident at the Indian Point Facilities

Dear Sherwin:

The State writes to request additional information regarding NRC's oversight and funding of offsite decontamination in the event of a severe accident at Indian Point. As we discussed on our conference call yesterday, it is not clear which federal agency is responsible for decontaminating the area surrounding Indian Point or whether the Price Anderson Act covers such decontamination costs.

On March 20, 2012, NRC Staff announced that it was going to supplement its examination of the environmental impacts of the issuance of proposed operating licenses for the Indian Point Unit 2 and Indian Point Unit 3 facilities in the December 2010 Final Supplemental Environmental Impact Statement ("FSEIS"). 77 Fed. Reg. 16278 (Mar. 20, 2012). On March 28, 2012, the State sent a letter to NRC Staff regarding the proposed scope of the FSEIS supplement. *See* March 28, 2012 letter from J. Sipos to S. Turk (NRC), ML12090A609. In its

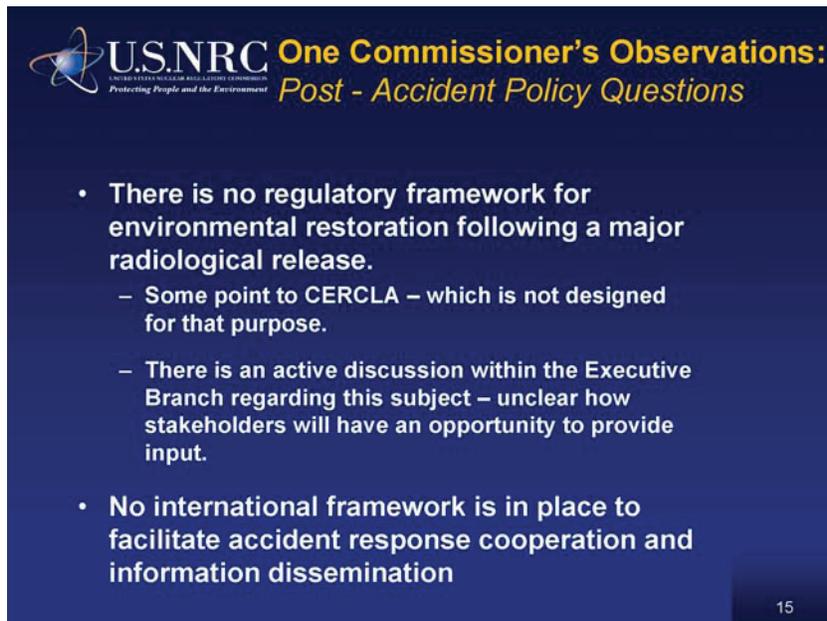
scoping comments, the State urged NRC Staff to address, in a proactive way, the issue of how it deals with severe nuclear events that lead to significant environmental impacts including land contamination. *Id.* at 13. In Attachment I to the State’s letter, the State raised the issue of funding for decontamination costs, noting that—according to documents prepared by staff at the U.S. Environmental Protection Agency (“EPA”)—the NRC recently informed the EPA and the Federal Emergency Management Agency (“FEMA”) that the industry-funded account established under the Price Anderson Act would likely not be available to pay for offsite decontamination in the event of a severe accident at a nuclear plant. *Id.*, Attachment I at 59 (discussing Douglas P. Guarino, *Agencies Struggle To Craft Offsite Cleanup Plan For Nuclear Power Accidents*, Inside EPA (Nov. 10, 2010), and attached emails disclosed pursuant to Freedom of Information Act (“FOIA”) Request).

On June 26, 2012, NRC Staff informed the public that the draft FSEIS supplement was available for public comment, however, the draft did not address the State’s scoping comments. *See* Notice of Availability of Draft Supplement to Final Plant Specific Supplement 38 to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, June 26, 2012, ML12178A660; Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Draft Report for Comment, June 2012, ML12174A244.

On August 20, 2012, the State submitted comments on the draft FSEIS supplement to the NRC, identifying and discussing the issue of funding for environmental restoration following a major radiological release at Indian Point. *See* Comments by the New York State Office of the Attorney General on the Draft Supplement to Supplement 38 to the Generic Environmental

Impact Statement For License Renewal of Nuclear Plants, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Draft Report for Comment Dated June 26, 2012 (“State Comments”) at 4, Aug. 20, 2012, ML12235A409.

The State’s comments cited a presentation by NRC Commissioner William D. Magwood, IV at the Health Physics Society Mid-Year Meeting on February 6, 2012. *See* Commissioner Magwood, Nuclear Issues in the Post Fukushima World - Presentation at the Health Physics Society Mid-Year Meeting (“Magwood Presentation”), Feb. 6, 2012, *available at*: <http://www.nrc.gov/about-nrc/organization/commission/comm-william-magwood/testimony-speeches.html>. In the presentation, Commissioner Magwood noted that “[t]here is no regulatory framework for environmental restoration following a major radiological release.” *Id.* at slide 15 (reproduced below).



Based on this information, the State commented that “it [is] not clear that NRC has the desire, capability, or financial resources to respond to a serve accident at Indian Point and ensure the thorough decontamination of the New York metropolitan area including, but not limited to,

its water resources—and drinking water resources—in the wake of such an accident.” State Comments at 4.

In response to the State’s comments, NRC Staff stated that “NRC has technical leadership for the Federal government’s response to the event,” but it also listed eight other federal agencies “who may respond to an event at an NRC-licensed facility, or involving NRC-licensed material.” Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 Final Report, Supplemental Report and Comment Responses (“June 2013 FSEIS Supplement”) at A-32, June 2013, ML13162A616. Staff’s response did not address Commissioner Magwood’s statement regarding the lack of a regulatory framework for environmental restoration following a major radiological release. Nor did Staff explain which agency is responsible for decontaminating the New York metropolitan area following a severe accident at Indian Point, or which agency’s decontamination standards will apply to a cleanup.

Staff noted that “[c]osts associated with nuclear incidents are governed by the Price-Anderson Nuclear Industries Indemnity Act” and that “[t]he main purpose of the Act is to provide prompt and orderly compensation to the public who may incur damages from a nuclear incident, no matter who might be liable.” *Id.* Staff added that there is a combined level of protection under the Price Anderson Act of \$12 billion, and if a nuclear accident involves damages in excess of this amount, the Act “includes a provision that obligates Congress to take appropriate action to provide compensation for public liability claims.” *Id.* at A-33. However, while Staff’s response explains how the public will be compensated for damages incurred as a result of an accident, such as hotel stays, lost wages and property replacement costs, it does not

explain how *decontamination* costs will be funded in the event of a severe accident at the Indian Point reactors or spent fuel pools.

Given the unique characteristics of Indian Point, the State believes it is especially important that the public have access to this information. The Indian Point reactors are located 24 miles north of New York City. More than 17 million people live within 50 miles of Indian Point, a total that is projected to grow to over 20 million by 2035. According to the Atomic Energy Commission, the NRC, and FEMA, more people live within 10 and 50 miles of the Indian Point reactors than at any other operating power reactor in the nation. The communities within the 50-mile radius around Indian Point also contain some of the most densely-developed and expensive real estate in the country, critical natural resources, centers of national and international commerce, transportation arteries and hubs, and historic sites. Thus, the decontamination costs of a severe accident at Indian Point have the potential to be larger than an accident at any other reactor in the country.

Documents disclosed by the NRC and other federal agencies indicate that there are conflicting responsibilities of multiple federal agencies for offsite restoration after a nuclear incident and that NRC may not lead cleanup oversight in the event that an accident at a nuclear power plant dispersed radioactive contamination off the reactor site and into the surrounding area. See Douglas P. Guarino, *Agencies Struggle To Craft Offsite Cleanup Plan For Nuclear Power Accidents*, Inside EPA (Nov. 10, 2010), and attached emails disclosed pursuant to FOIA Request (reproduced in part below).

**NRC-FEMA-EPA White Paper:
Potential Authorities and/or Funding Sources for Off-site Cleanup Following a
Nuclear Power Plant Incident**

Background:

- The Environmental Protection Agency (EPA), the Nuclear Regulatory Commission (NRC), and the Federal Emergency Management Agency (FEMA) began a series of quarterly meetings in 2009 to discuss unresolved concerns regarding off-site environmental cleanup following a nuclear power plant incident. Deleted: an
- ~~NRC recently indicated to FEMA that they would not be taking the lead for off-site environmental cleanup after a nuclear power plant incident. NRC suggested EPA would be the appropriate agency to lead such efforts.~~ Formatted: Bullets and Numbering
- ~~NRC also indicated the Price Anderson Act would be unable to pay for environmental cleanup after a nuclear power plant incident, only for compensation for damages incurred (e.g., hotel stays, replacement costs for property and personnel items, lost wages, etc).~~ Deleted: the
- ~~FEMA convened a workgroup to discuss the following issues related to nuclear power plant incidents: potential Agency roles (e.g., who would lead cleanup efforts); cleanup authorities; and fund sources.~~
- Evaluation of language from the *Price-Anderson Act*, the *Stafford Act*, and EPA's previous policies and expectation that the *CERCLA* (Comprehensive Environmental Response, Compensation, and Liability Act) would generally not be used for response actions to address releases from NRC-licensed sites including nuclear power plants, may indicate a potential gap in authority to perform or oversee and fund off-site cleanup following a nuclear power plant incident, depending on the circumstances of the incident and the subsequent declarations of the federal government.
- The Report to Congress from the Presidential Commission on Catastrophic Nuclear Accidents (See Attachment D)¹: outlines a number of concerns regarding nuclear power plant incidents. The report covers the sourcing of funds under a "Major Disaster," a "Catastrophe," and how to prepare and respond to a "catastrophic disaster."
 - Current plans do not cover "long-duration accidents that have impacts over large land areas"
 - The authority of the Court to award damages does not extend to executive branch powers.
- The following are questions and concerns are unresolved:

¹ "Report to the Congress from the Presidential Commission on Catastrophic Nuclear Accident." State of Nevada, n.d. Web. 1 Jul 2010.

- Under what authority will off-site cleanup following a nuclear power plant be conducted?
- What is the funding source for off-site cleanup following a nuclear power plant incident?

Objective:

- Provide current understanding on potential authorities and sources of funding for off-site cleanup following a nuclear power plant incident.

These documents also indicate that money set aside by the Price Anderson Act would not be available to fund decontamination. *Id.* If there is no regulatory framework or source of funding in place to decontaminate the New York metropolitan area in the event of a severe accident at Indian Point, that fact should be disclosed by NRC Staff to the public.

Therefore, in light of Commissioner Magwood's statements and NRC's statements to EPA, the State requests that the U.S. Nuclear Regulatory Commission answer the following questions:

1. Which federal agency is responsible for decontaminating radiation released offsite by a severe accident at the Indian Point reactors and spent fuel pools?
2. Would the Price Anderson Act fund decontamination in the event that that an accident at Indian Point caused radioactive contamination to be dispersed off the reactor site and into the surrounding area?

We appreciate your cooperation and look forward to receiving additional information regarding NRC's oversight and funding of offsite decontamination in the event of a severe accident at Indian Point. Based on our conversation yesterday, we trust that you will forward this letter and our request to the appropriate individuals, including James Wiggins, Director, Office of Nuclear Security and Incident Response, and Robert Lewis, Director, Division of Preparedness and Response, Office of Nuclear Security and Incident Response.

Sincerely,

s/

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Laura Heslin
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cc: Paul Bessette, Esq., Counsel for Entergy
Robert D. Snook, Assistant Attorney General, State of Connecticut
Phillip Musegaas, Esq., Counsel for Riverkeeper
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