

Exelon Generation Co., LLC  
4300 Winfield Road  
Warrenville, IL 60555

**J. BRADLEY FEWELL**  
**VICE PRESIDENT & DEPUTY GENERAL COUNSEL**  
DIRECT DIAL: 630-657-3769  
E-MAIL: BRADLEY.FEWELL@EXELONCORP.COM

May 14, 2010

**VIA FACSIMILE & FEDERAL EXPRESS**

Irene Kropp, Deputy Commissioner  
New Jersey Department of Environmental Protection  
401 East State Street  
Trenton, NJ 08625

Re: Directive and Notice to Insurers dated May 7, 2010  
Oyster Creek Nuclear Generating Station  
Exelon Generation Co., LLC  
EA ID # PEA100001

Dear Deputy Commissioner Kropp:

This responds to the Directive and Notice to Insurers (“Directive”) issued to Exelon Generation Company, LLC (“Exelon”) on May 7, 2010 regarding Oyster Creek Generating Station (“OCGS”).

As we discussed during our meeting on May 11, 2010, Exelon has already taken a number of steps to ensure that the tritium will not cause a threat to the public health and welfare including dozens of specific actions that were coordinated with the New Jersey Department of Environmental Protection (“DEP” or “Department”) and voluntarily conducted pursuant to the Department’s Technical Requirements for Site Remediation (“Tech Regs”). Exelon has repaired the source of the original leaks and has undertaken a multimillion dollar project to seal its buried piping in monitored concrete vaults or bring the pipes above ground. Exelon also installed additional groundwater monitoring wells, and collected and analyzed daily samples of surface water around the plant and weekly and monthly samples from select groundwater monitoring wells to ensure that the tritium discharges would not cause any adverse affects to human health and the environment. Sample results and the precautions that we have put into place have confirmed that no detectable levels of tritium have migrated from OCGS.

The U.S. Nuclear Regulatory Commission (“NRC” or the “Commission”) concluded in its September 8, 2009 Inspection Report that the tritium releases did not result in “any radiological public health and safety consequence...or violation of NRC requirements or standards.” While DEP appears to question this conclusion, no tests have indicated any public health danger or offsite contamination nor is there any indication that detectable levels of tritium will ever contaminate drinking water supplies. Unfortunately, some of our neighbors have been

unnecessarily alarmed by news reports. We will take actions to reassure our neighbors and further educate reporters, and we respectfully ask the Department to use every effort to correct any misimpression that the public is in danger. We fully understand the difficulty of messaging any developments in a climate where a regional newspaper purports, on the one hand, to provide fair and balanced coverage of the plant and yet has openly fought for nearly a decade to close the plant, on the other hand.

With these issues of concern aside, we set forth the following good faith defenses to the Directive that we are required to identify by law. *In re Kimber Petroleum Corp.* (110 N.J. 69 (1988)) and N.J.A.C. 7:26C-9.11. However, as discussed at our meeting, Exelon shares DEP's objective to continue to monitor the tritium releases and take any additional actions that might be necessary to protect the public health and welfare.

**I. Exelon has taken action and continues to investigate the presence of tritium in groundwater and surface water consistent with the Tech Regs and in cooperation with DEP.**

In 2006, as part of a fleet-wide effort, Exelon voluntarily conducted a site-wide hydrogeologic investigation of OCGS. The investigation concluded that tritium was not detected at concentrations greater than the USEPA drinking water standard of 20,000 pCi/L in any groundwater or surface water samples collected. Exelon voluntarily submitted a copy of its Hydrogeologic Investigation Report for OCGS to DEP for its information. Since that time, as part of its voluntary Radiological Groundwater Protection Program, Exelon collects groundwater and surface water samples and analyzes those samples for tritium twice a year. The results of the samples are documented in the station's annual Radiological Environmental Monitoring Program report, which is provided to the NRC and is available to the public. On March 10, 2009, as part of its voluntary monitoring program, Exelon collected and analyzed groundwater samples from 26 groundwater monitoring wells at the Station. The results of the sampling event did not reveal any detectable concentrations of tritium.

On April 15, 2009, Exelon workers discovered water in a concrete vault near the plant's cooling water intake structure while performing maintenance activities. Pursuant to Exelon's normal operating protocol, Exelon pumped the water into drums and collected and analyzed samples. The results of the drum samples indicated the water contained a tritium concentration of 102,000 pCi/L. Exelon staff immediately reported the tritium release to the DEP and the NRC.

Exelon then immediately took steps to address the release, including, among other things, voluntarily determining to follow the Tech Regs. The Tech Regs contemplate a phased-approach to remediation, and Exelon has followed this approach. As one of the first steps in this phased approach, the Tech Regs require a party to conduct a Site Investigation to determine whether a discharge of hazardous substances has impacted the lands or waters of the State. N.J.A.C. 7:26E-3.1(d). The results of the Site Investigation must be reported in a Site Investigation Report ("SIR"). N.J.A.C. 7:26E-3.13. The next phase of the remediation process

is preparation of a Remedial Investigation Workplan ("RIW") wherein the responsible party proposes a work plan to fully delineate the discharged hazardous substances, evaluate subsurface characteristics of the site, identify potential receptors of contaminants and gather all information necessary to evaluate remedial action alternatives. *N.J.A.C. 7:26E-4.1 and 4.2.* Thereafter, the activities proposed in the RIW are implemented, and the results of the remedial investigation are reported in a Remedial Investigation Report ("RIR"). *N.J.A.C. 7:26E-4.8.* After the contamination is fully delineated, the responsible party must prepare a Remedial Action Workplan ("RAW") outlining the necessary work to implement the appropriate remedial action to address the contamination. *N.J.A.C. 7:26E-6.2.* After the RAW is approved by DEP, the remedial action is implemented. The implementation of the remedial action is documented in the Remedial Action Report ("RAR"). *N.J.A.C. 7:26E-6.7.*

Upon discovering the tritium in the concrete vault, Exelon initiated a Site Investigation. A description of the scope of Exelon's Site Investigation follows. On April 16, 2009, Exelon began sampling several existing groundwater monitoring wells and surface water locations. Since that time, Exelon has performed sampling on a frequent basis by collecting daily samples of some surface water locations and weekly and monthly samples of specific groundwater monitoring wells. From April 21, 2009 to May 26, 2009, Exelon installed six additional monitoring wells to delineate the extent of contamination in the Cape May formation. Exelon also immediately began recording water level measurements in the wells and at staff gauges in surface water and performed a pump test from June 17<sup>th</sup> to June 19<sup>th</sup>. During the course of the Site Investigation, a second tritium leak was discovered. Exelon initiated an investigation to determine the potential sources of both tritium releases and concluded that the tritium leaked from two small holes in buried piping associated with the Condensate Storage Tank. Exelon submitted a Site Investigative Report to DEP on August 28, 2009 documenting the results of its Site Investigation. The Directive makes no mention of the fact that Exelon submitted the SIR, thereby understating the degree to which Exelon has responded to this issue.

Prior to receiving a response from DEP to the SIR, Exelon submitted a RIW to DEP on October 26, 2009 that proposed locations for the installation of additional monitoring wells in both the Cape May and Cohansey aquifers to delineate tritium in groundwater at OCGS and a plan to sample its groundwater monitoring well network and surface water on a regular basis, including weekly, monthly and quarterly sampling of certain wells. Exelon also proposed locations for collecting continuous groundwater and surface water elevation measurements and synoptic water level measurements in order to obtain a better understanding of groundwater flow beneath the Station. Finally, Exelon documented in the RIW that it discovered a third tritium leak on August 26<sup>th</sup> in the same area of the former leaks.

Despite the passage of almost seven months, DEP has not yet responded to the Remedial Investigative Workplan. Receiving no response from DEP to the RIW, Exelon proactively began implementing the RIW. Exelon installed seven additional monitoring wells in the Cape May and Cohansey formations; however, was unable to install all of the wells proposed in the

RIW because of obstructions at the site. Exelon has also been routinely and frequently sampling its monitoring well network and surface water.

After encountering difficulties attempting to install all of its proposed monitoring wells, Exelon re-evaluated its proposed locations for additional monitoring wells. As discussed during the May 11, 2010 meeting with DEP, Exelon agrees to meet with DEP to discuss the proposed locations of the additional wells as well as the scope of additional work performed by Exelon. Exelon agrees to continue to cooperate with DEP by voluntarily following the requirements set out in the Tech Regs.

## II. Federal Law Governs

### A. The Atomic Energy Act preempts the DEP's Directive.

The Atomic Energy Act of 1954, 42 U.S.C. §§2011-2281 ("AEA") confers on the NRC exclusive authority over the radiological hazards of byproduct, source and special nuclear material and activities associated with such materials, including the construction and operation of nuclear power plants. While NRC may cede some limited authority to States by agreement, the NRC must retain exclusive regulatory authority over "the construction and operation of any production or utilization facility or any uranium enrichment facility," including "the disposal of such ... byproduct, source, or special nuclear material as the Commission determines . . . should, because of the hazards or potential hazards thereof, not be disposed of without a license from the Commission." *Silkwood v. Kerr-McGee Corp.*, 464 U.S. 238, 250 (1984).

The U.S. Supreme Court has repeatedly affirmed that the AEA preempts state laws that seek to regulate the operation of nuclear facilities and management of radiological materials. *Pacific Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 213 (1983). The Court noted that Congress has taken "greater pains to make clear that state regulation of matters directly affecting the radiological safety of nuclear plant construction and operation" is not permitted. *English v. General Electric Co.*, 496 U.S. 72, 84 (1990). Federal Courts have found that the AEA preempted a state cleanup law (*US v. Manning*, 434 F.Supp. 988, 995 (E.D. Wash. 2006), *aff'd*, 527 F.3d 828, 836 (9th Cir. 2008)) and an environmental consent decree (*Missouri v. Westinghouse Electric LLC*, 487 F.Supp.2d 1076, 1078-79 (E.D. Mo. 2007)) where the states' actions with respect to AEA materials arose out of concerns for health and environmental risks.

State courts and Federal courts with jurisdiction in New Jersey likewise have recognized the AEA's preemption of environmental programs that attempt to regulate areas of NRC jurisdiction related to nuclear power plants. In *Jersey Central Power & Light Co. v. Lacey Tp.*, 772 F.2d 1103, 1110-13 (3d Cir. 1985), the U.S. Court of Appeals for the Third Circuit ruled that the AEA preempted a township ordinance prohibiting the importation of nuclear waste. In *State, Dept. of Environmental Protection v. Jersey Central Power & Light Co.*, 69 N.J. 102, 114-15 (1976), the Supreme Court of New Jersey held that the AEA precluded a finding of

liability against a previous operator of the Oyster Creek Generating Station for the death of fish in tidal water into which the plant had discharged unheated water during a shutdown required by the Atomic Energy Commission ("AEC"). Finally, in *Public Interest Research Group of New Jersey, Inc. v. State, Dept. of Environmental Protection*, 152 N.J. Super. 191, 216 (App. Div. 1977), the Superior Court of New Jersey, Appellate Division, ruled that, in view of the comprehensive nature of the AEA and NRC regulations, the Commissioner of the NJDEP had no authority under the Coastal Area Facility Review Act, N.J.S.A. § 13:19-10, to make an independent judgment on the ability of the then-proposed Hope Creek Generating Station "to protect against radiation hazards either from the operation of the plant or from the handling of radioactive waste material created by the nuclear process." *Id.*

The Directive's requirements conflict with NRC requirements and the NRC-issued license to operate the plant. The Directive requires that Exelon implement actions at the sole discretion of DEP, including installing additional groundwater wells at locations determined by DEP, fully delineating tritium contamination in all media, implementing all remedial actions required by DEP and taking all other actions that the DEP determines are necessary to protect public health and welfare. Exelon may only take such actions as required and authorized by its license to operate, which is issued by the NRC. As such, Exelon is precluded from subsurface drilling, excavation and other construction projects at the plant without first ensuring that the activities can be conducted in a manner that does not compromise plant safety and operations. Because Exelon is regulated by the NRC, Exelon cannot agree to take any action at any time that the DEP orders, as required in the Directive. The Directive, therefore, is inconsistent with plant procedures and processes that Exelon must follow as a condition of its license, thereby making the Directive arbitrary and capricious and precluded by federal law including the AEA.

B. The tritium discharges have not caused a current or future threat to the public health and welfare.

Upon discovering the tritium releases, Exelon immediately initiated an investigation to assess possible human health effects. The NRC evaluated Exelon's potential dose consequences to the public. The NRC found that:

The calculations, using conservative estimates of water volume, indicated no off-site release in excess of any regulatory requirement, or any radiological dose consequence to members of the public discernable from normal background. The calculations included age specific consumption and exposure considerations. Maximum projected annual dose for the critical receptor (adult) was determined to be 2.9 E-5 millirem in a year (i.e., 0.000029 millirem). In comparison, NRC's annual total body ALARA dose criterion for liquid effluents is 3 millirem (10 CFR 50, Appendix I); EPA's annual dose equivalent whole body limit is 25 millirem for Uranium Fuel Cycle facilities (40 CFR 190.10); NRC's general regulatory annual limit for

individual members of the public is 100 millirem (10 CFR 20.1301); and the typical annual background radiation is about 350 millirem.

Consequently, the NRC concluded that there is no, "radiological public health and safety consequence associated this occurrence, or violation of NRC requirements or standards."

Further, Exelon has been frequently monitoring surface water and groundwater wells at OCGS since the tritium was discovered. No detectable concentrations of tritium have migrated from OCGS. Moreover, studies show that tritium will not migrate from OCGS at concentrations that pose a risk to human health or the environment. The NRC has agreed with these studies. All test results have been shared with DEP and we are unaware of any contrary finding.

**III. The action items required under the Directive are unenforceable and void because they are overly vague and fail to provide Exelon with fair notice of what is required.**

Directives are required to specify, among other things "the scope of the necessary remediation or the estimated remediation costs" and "the actions that the responsible parties are directed to take." N.J.A.C. 7:26C-9.11(c) 4 & 5. The Directive's requirements that Exelon agree to install additional monitoring wells according to a plan that it has not seen, implement "all necessary remedial actions that the Department approves", and "take all other actions that the Department determines are necessary" fail to satisfy the requirements at N.J.A.C. 7:26C-9.11 that DEP identify the scope of the remediation and other actions required. *See Directive*, ¶¶ 41.A, 41.C.ii & iii. The Directive's failure to apprise Exelon of the scope and nature of the work required renders it void for vagueness.


While the law requires us to set forth these good faith defenses, there should be no misunderstanding that Exelon will work cooperatively with the DEP and the NRC to address this situation. We believe that our voluntarily efforts have complied with the Department's Tech Regs and we will continue on this path.

Let me close by saying something that will probably never be reported but is nonetheless the fundamental truth of our work at the plant. All too often reports imply that the plant and the community are somehow two different things, almost as if Exelon employees secretly parachute into the plant, make electricity, and then escape. But the truth is that this is our community. Many of our folks have lived around this plant their entire lives, raising families, paying taxes and supporting their neighborhoods. There is nothing more important to us than ensuring the safety of our community and we think that the emissions free electricity that we generate here

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will power New Jersey families into the future. We look forward to hosting Commissioner Martin at the plant and we are certain that he will see first hand our commitment to safety and to our community.

Sincerely,



J. Bradley Fewell

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