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Via Email and First-Class Mail

Christopher M. Hogan
Chief, Major Projects Management Section
NYS Department of Environmental Conservation
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, New York 12233

Re: Comments on Renotice of Port Jefferson Power Station SPDES Renewal and Modification; SPDES Permit No. NY-0005932; Application 1-4722-00107/00013

Dear Mr. Hogan:

On behalf of Citizens Campaign for the Environment (CCE) and Network for New Energy Choices (NNEC), we submit these comments on the draft renewed and modified State Pollutant Discharge Elimination System (SPDES) permit for the Port Jefferson Power Station.

On October 7, 2009, CCE and NNEC submitted comments on the prior draft permit for the Port Jefferson plant. At that time, the company's application materials stated that Port Jefferson had been running at an average of 48 percent capacity and that its capacity factor was expected to decline to approximately 30 percent in coming years. We noted in our 2009 comments that although the plant was running less than half of the time, its cooling water intake structures were killing as many fish as if the plant operated at 91 percent of its full capacity. A July 2010 report issued by DEC similarly noted that "the Port Jefferson Power Station only used 27 percent of its generating capacity in 2008 but operated the cooling water system at about 75 percent of design capacity ... result[ing] in an estimated entrainment of 91 percent of the baseline conditions."¹

Despite the Port Jefferson plant's disproportionately high aquatic mortality, DEC was not proposing to require the plant to install a closed-cycle recirculating cooling system – the technology which is universally regarded as the most effective in reducing entrainment. DEC's decision not to recommend closed-cycle cooling was based in part on the contention of the plant's owner, National Grid, which DEC uncritically accepted, that there was insufficient space

¹ New York State Department of Environmental Conservation, *The Relationship between Cooling Water Capacity Utilization, Electric Generating Capacity Utilization, and Impingement and Entrainment at New York State Steam Electric Generating Facilities*, Technical Document, July 2010, Page 16 of 27.

to locate closed-cycle cooling towers on the plant site. In response, CCE and NNEC submitted an analysis prepared by their consulting engineer, William Powers, P.E., demonstrating that the site is large enough to accommodate the five in-line, plume-abated, mechanical-draft, evaporative cooling cells that would be needed for each unit.

Furthermore, DEC was proposing to require reductions of only 60 percent for entrainment and 90 percent from impingement as measured from a "full flow" baseline, whereas closed-cycle cooling would yield reductions of 95 percent or greater as measured from a more realistic (already reduced) actual flow baseline. CCE and NNEC thus requested an adjudicatory hearing to adjudicate the relevant factual issues before an administrative law judge.

National Grid subsequently notified DEC that, based on its updated forecasts, it expected to operate the Port Jefferson plant far less frequently than previously predicted. National Grid also proposed measures designed to reconfigure the relationship between Port Jefferson's electric generating capacity utilization, cooling water usage, and impingement and entrainment. For example, the plant already began implementing aggressive pump shutdown procedures such that when a unit goes off-line, one cooling water pump is shutdown immediately and the other is shut down as soon as possible thereafter. These measures, along with the upcoming installation of variable speed pumps, will result in the plant withdrawing less water and killing fewer fish than its capacity factor would indicate, rather than the other way around. Accordingly, DEC has revised the draft permit to include the following key provisions:

- 15% capacity factor limitation
- installation of variable speed pumps in reasonably short time frame
- aggressive pump shutdown procedures
- installation of modern Ristroph screens with fish return
- 95% reduction in impingement mortality
- 80% reduction in entrainment mortality
- 2 years of post-implementation monitoring
- frequent reporting

CCE and NNEC continue to believe that closed-cycle cooling is the best technology available for minimizing the adverse environmental impacts of cooling water intake structures and that all existing steam-electric power plants still relying on the antiquated, destructive once-through cooling technology should replace their cooling systems with closed-cycle cooling (if they plan to continue operation) so as to provide the greatest level of intake flow reduction and fish protection attainable. CCE and NNEC also continue to believe that entrainment and impingement reductions should be measured against an actual flow, rather than a full flow, baseline, so as to provide a more accurate metric.

Nevertheless, in light of the fact that the Port Jefferson plant will not run very often – indeed, the permit requires that the plant "shall be operated at less than fifteen (15) percent of its electric generating capacity factor" – and the increase to 80 percent and 95 percent, respectively,

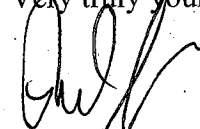
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(from 60 percent and 90 percent) in entrainment and impingement reductions, as well as the other improvements in the permit, CCE and NNEC withdraw their request for an adjudicatory hearing. In the circumstances presented here, the version of the permit published in the Environmental Notice Bulletin on June 15, 2011, is acceptable.

It should be noted, however, that CCE and NNEC remain highly skeptical of claims that any significant number of fish eggs or larvae survive entrainment or that an entrainment survival percentage can be accurately and reliably measured, given the fragility of the organisms subject to entrainment and other complicating factors. Accordingly, CCE and NNEC are very interested in the plant's verification monitoring and, in particular, would like the opportunity to comment on any through-plant entrainment survival study submitted by the plant owner.

Thank you for this opportunity to comment.

Very truly yours,



Reed W. Super