

SUPER LAW GROUP, LLC

February 12, 2010

Via Email and U.S. Mail

Rudyard G. Edick
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Comments on East River Generating Station SPDES Modification
Draft SPDES Permit No. NY-0005126; DEC No. 2-6206-00012/00004

Dear Mr. Edick:

On behalf of the Citizens Campaign for the Environment and the Network for New Energy Choices, we submit these comments on the draft modified State Pollutant Discharge Elimination System (SPDES) permit for Consolidated Edison's East River Generating Station, located at East 14th Street in Manhattan. In particular, we believe that the Best Technology Available (BTA) determination DEC made pursuant to Section 316(b) of the Clean Water Act, 33 U.S.C. § 1326(b), and 6 NYCRR § 704.5 for the plant's cooling water intake structures is flawed in several respects. Those flaws should be corrected and we also hope that DEC's forthcoming statewide BTA policy will provide an improved framework for making these decisions for other plants in the future.

The Plant's Impacts on the East River and the Hudson-Raritan Estuary System

The East River is part of the Hudson-Raritan Estuary System, extending approximately 170 miles from the dam at Troy, NY to Sandy Hook, NJ. The estuary system connects to the coastal marine waters of the New York Bight, between Sandy Hook, NJ and Rockaway Point, NY, and to the western end of the Long Island Sound through the East River. According to DEC, more than 140 species of fish have been reported from the Hudson-Raritan Estuary System, representing marine, estuarine, freshwater and diadromous fish, as well as species adapted to northern and southern climates.

The East River Generating Station (ERGS) includes two oil and gas-fired units (Units 6 and 7), built in 1951 and 1955 and which are rated at 137 and 180 megawatts (MW) respectively. It withdraws 369 million gallons of water per day from the East River, killing an estimated 1.34 billion fish eggs and larvae through entrainment and 1.5 million adult and juvenile fish through impingement, annually. More than sixty-eight species of fish have been impinged or entrained at ERGS. Considering that ERGS generates only 317 MW, the plant has particularly high fish kill numbers. The only power plant in New York City that entrains more fish than ERGS is the Arthur Kill plant, but that plant generates more than two-and-a-half times as much electricity (842 MW vs. 317 MW), while entraining only 15 percent more fish (1.54 B vs. 1.34 B).

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The BTA Determination for the East River Generating Station

Rejection of Closed-Cycle Cooling

In the Biological Fact Sheet, DEC acknowledges, as it must, that a closed-cycle recirculating cooling system (“CCC”) is the technology that would result in the greatest reduction in impingement and entrainment at ERGS, reducing total water withdrawals at the plant by 93.6 percent at Unit 6 and 94.1 percent at Unit 7. Fact Sheet at 3-4. Because entrainment is closely related to intake flow, CCC would protect about 94 percent of the organisms entrained by ERGS and thus save about 1.26 billion eggs and small larvae (94 % x 1.34 B). Further, DEC does not identify any reasons why installation and operation of CCC would be technologically infeasible at the plant; to the contrary, the Fact Sheet admits that “closed-cycle cooling may be a technically feasible alternative.” *Id.* at 7. Nevertheless, the Fact Sheet states that DEC rejected CCC “due to a combination of high cost, and several siting issues.” *Id.* We address each rationale in turn.

With respect to cost, DEC has not provided any estimate of the cost of CCC, much less analyzed that cost or even put it in context. While Con Edison may have estimated the cost in its application materials, the Fact Sheet does not identify any cost figure or give any indication whether the Department has fulfilled its responsibility to independently verify the cost information supplied by the permittee. If DEC intends to base its permitting decision on cost, then it should not only determine what those costs would be, but also analyze them and put them in context. For example, while the Fact Sheet states that the undisclosed cost of CCC would be “high,” DEC has apparently not ascertained whether the plant can reasonably bear those costs, *i.e.*, compared them to revenues, or determined whether the plant would absorb the costs or pass them on to electricity consumers, and, if the latter, whether there would be anything more than a trivial impact on electricity rates. If these analyses are done, the likely result will be that a cost which might seem “high” in the abstract is, in fact, a tiny fraction of the revenues from the plant and, at most, an increase of a few cents per month on the average monthly electricity bill. There appears to be no evidentiary basis in the record for the Department to make a conclusion that the costs are too “high.” DEC does not appear to have independently assessed the information provided by Con Edison and the Department failed to adequately explain the basis for its determination. We hope that before issuing a final permit for this facility, and in its forthcoming BTA policy, the Department undertakes and commits to a more rigorous assessment of the true costs of CCC in their proper context, rather than merely relying on references to costs as being “high,” apparently based on uncritical acceptance of numbers provided by the applicant.

Second, with respect to siting issues, while we are sensitive to concerns about protecting open space, DEC has not made clear in the Fact Sheet, nor in any other document with which we are aware, how it takes other environmental impacts (*i.e.*, non-fishery related) into account when making BTA determinations. The oft-cited four-step analysis first set forth in the June 2, 2000 Interim Decision of the Commissioner in *Matter of Athens*, and in particular the third step, has generally focused on whether the technologies are feasible, not whether certain resources, such

as the recreational resources here, are more desirable than aquatic resources. The Fact Sheet states that “[c]ommunity impacts such as cooling tower plume, noise, and recreational impacts would need to be addressed through the SEQRA,” *Id.* at 3, but DEC’s decision to reject CCC due to “siting issues” has circumvented the thorough public process by which those impacts would be evaluated and mitigated.

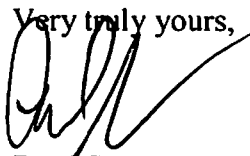
Choice of Ristroph Screens with 0.75 mm Mesh Panels as BTA

DEC determined that modified Ristroph screens with a fish return system with fine mesh (0.75 mm) screens is BTA for ERGS, so long as that mesh is feasible at ERGS and performance standards, *i.e.*, a 75 percent reduction in entrainment and a 90 percent reduction in impingement, are met. *Id.* at 5. The difference between the 94 percent reduction that CCC would provide and the 75 performance standard DEC established translates into a loss of at least 255 million organisms per year (19 % x 1.34 B) and probably more because of the calculation baseline problem discussed below. Further, the fact that DEC has not yet determined whether fine mesh screens are feasible is troubling. As noted above, the third step in DEC’s four-step BTA analysis focuses on the ability of technology to be installed and operated at the site. In *Athens*, the Commissioner determined that a proposed filter fabric device could not be BTA because it had not been proven to work at the site. Here DEC appears to be uncertain whether the fine mesh screens would work at ERGS, but has nevertheless selected them as BTA for entrainment reduction. Furthermore, DEC has not explained why fish eggs and larvae larger than 0.75 mm that will be excluded from the intake by those screens would not then be impinged on those same screens. Finally, while the Fact Sheet states that some of the entrainment reduction will be attributable to flow reduction due to the use of cogeneration during the winter (because the sale of steam exhausted from the turbine reduces the amount of steam that must be condensed), *id.* at 5, such reduction is likely to be small because, as the Fact Sheet acknowledges, “the highest density of the fish eggs and larvae occur during the summer period.” *Id.* at 4. Further, any reductions from due to cogeneration should not be counted in the BTA analysis because they would occur anyway and are unrelated to fish protection measures. In other words, as we discuss below, the baseline should be actual flow not a hypothetical full flow.

DEC Should Use an Actual-Flow, not a Full-Flow, Baseline

As we have explained to DEC with respect to many of New York’s power plants, the Department’s “full-flow” calculation baseline to calculate impingement and entrainment reductions is improper and misleading and should not be used. No power plant, not even a baseload nuclear plant, actually operates at “full flow” or 100 percent pumping capacity of the system. Using hypothetical full flow conditions to determine impingement and entrainment reduction levels thus represents an enormous departure from reality that would allow the plants to receive credit for reductions in environmental impacts which have not occurred and have no basis in fact (or would occur regardless of what technology is chosen as BTA). That results in an

apples-to-oranges comparison between CCC and mesh screens. If a calculation baseline is used at all,¹ then it must reflect some reasonable measure of the plant's actual water usage and actual fish kills.

Very truly yours,

Reed Super

cc (by email):

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¹ Neither a calculation baseline, nor a target reduction percentage, is necessary or even desirable in determining BTA because minimizing adverse environmental impacts requires reducing those impacts *as much as possible*, not reducing them by some arbitrary percentage below a fictional, or even actual, baseline measure. Further, BTA can be articulated with reference to specific technologies rather than percentage reductions.