

Exelon Nuclear
Peach Bottom Atomic Power Station
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March 4, 2005

Mr. Sean Furjanic
Pennsylvania Department of Environmental Protection
Water Quality Management
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Subject: Peach Bottom Atomic Power Station
NPDES Permit PA 0009733
Proposed Alternate Method to Reduce Thermal Discharge

Dear Mr. Furjanic,

The purpose of this letter is to formally request a change in the conditions of our NPDES Permit Number PA 0009733. We are requesting to add the option to derate the Generating Units as an alternative to operating the cooling towers. We believe that this flexibility will allow us to adequately protect the biological communities in the Conowingo Reservoir.

The remainder of this letter provides you with some background information and then suggests some alternate language for our permit. We request to make this language effective immediately and to incorporate this language into our new permit, which we intend to apply for in May, 2005.

Background

During a construction project at Peach Bottom, the station severed three of the 13kV electrical cables that power the cooling towers. More specifically, two of these three cables are the electrical feeds to the lift pumps for the B and C cooling towers and the third cable is the electrical feed to the transformer that powers the fans in the cooling towers. The damage to these three cables means that the only operable lift pump is in the A tower. The loss of one of the two 13kV fan feeds also means that only six of the eleven fans per tower are available.

COOL

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Peach Bottom is working diligently to repair the cables however, this work may not be completed by the summer months when the cooling towers could, potentially, be needed. As a contingency plan, Peach Bottom is proposing to reduce total power, equivalent to the heat rejected by two cooling towers, as an alternative to running the cooling towers.

Permit Language

Our current NPDES permit states:

In the event of a joint occurrence of low river flows (<3,000 cfs) and high ambient water temperatures (>85 degrees F), the station will take appropriate measures to ascertain the potential effects on the local fish community. The Department will be notified when such conditions occur. Measures to be taken by the station will be communicated and discussed with the Department at that time. The station will ensure that two cooling towers are available in the event it is determined that the probability of an adverse impact occurring is high. If cooling towers are required, tower startup will be initiated as per station operating procedures.

Our proposed wording:

In the event of a joint occurrence of low river flows (<3,000 cfs) and high ambient water temperatures (>85 degrees F), the station will take appropriate measures to ascertain the potential effects on the local fish community. The Department will be notified when such conditions occur. Measures to be taken by the station will be communicated and discussed with the Department at that time. The station will communicate the possibility of needing to reduce power by the equivalent of 25% per Unit or will ensure that two cooling towers are available in the event it is determined that the probability of an adverse impact occurring is high. The total station power reduction would be 1757 MW_{th}. If it is determined that an adverse impact is occurring, tower startup will be initiated as per station operating procedures, or a power reduction by the equivalent of 25% per Unit will commence in accordance with the PJM ISO Rules and station procedures.

The station will notify PJM of an immediate (within 2 hour) load reduction of the equivalent of 25% of one unit (879 MW_{th}) due to the adverse effects Peach Bottom is having on the local fish community. After 24 hours with no improvement to the local fish population, Peach Bottom will further reduce power by the equivalent of 25% of one unit (879 MW_{th}), for a total power reduction of the equivalent of 25% per unit.

The only exception to either power reduction or cooling tower startup will be due to emergency power operations as declared by the PJM. The emergency procedures of the PJM ISO have five actions to take when generation capacity will not meet demand: Maximum Emergency Generation, Load Management Program, Load Reduction Program, Voltage Reduction and Curtailment of Non-Essential Building Load, and Voluntary Customer Load Curtailment. The PJM may initiate these actions in any order. If these actions fail to alleviate the capacity shortage, the PJM ISO will then begin manual load drops around the region (rolling brownouts or blackouts). Peach Bottom will reduce power up to the point of the PJM initiating manual load drops.

If the PJM believes the Peach Bottom power restriction will cause grid instability and they are to the point of manual load curtailment, then Peach Bottom may invoke the emergency need for power and postpone the power restriction until grid stability is returned. The grid stability will be indicated by the termination of one of the PJM emergency actions for shortage of generation capacity.

The PJM's purpose in all of these actions is to maintain the stability of the electrical grid so the entire region does not experience an uncontrolled blackout or brownout. Under our current permit, if adverse effects were noted on the local fish community, and the PJM were in emergency operating conditions, they would request that we delay starting the cooling towers. The cooling towers place a large demand for electricity on the grid.

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In closing, we would like to repeat our assurance to the PADEP that we are confident that this additional flexibility will be protective of the indigenous fish population. We look forward to working with you on this issue and we, once again, ask you to give our request prompt attention.

If you have any questions on this matter, please contact either Tracy Siglin (610) 765-5904, Bryan Holcomb (717) 456-3182 or Fred Crosse (717) 456-4494.

Sincerely,



Robert C. Braun
Site Vice President,
Peach Bottom Atomic Power Station

RCB/FHC/bcb

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CCN 05-14020