



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

*due* → January 22, 2003

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	SEC
	FILE
	INFO
	OWNER
	ADMIN

Mr. John L. Skolds, President  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT:** LICENSED THERMAL POWER - BYRON STATION, UNIT 1

Dear Mr. Skolds:

As a result of the Nuclear Regulatory Commission (NRC) staff review of technical information regarding the operation of Byron Station, Unit 1 (Byron 1), we are concerned that Byron 1 may be operating above its licensed thermal power level.

This concern is based, in part, on the following information:

Following installation of an ultrasonic feedwater flow instrument at Byron 1, differences appeared in the power levels between Byron 1 and Braidwood 1, its sister unit. This suggests differences in accuracy in the ultrasonic flowmeters. Presently, Byron 1 is producing more electrical power at approximately 98 percent power, than Braidwood 1 is producing at 100 percent power.

Several plant parameters reportedly have values that are consistent with a higher thermal power level than that indicated by the plant calorimetrics based upon the feedwater flow measurements. It has been postulated that these discrepancies may be explained as allowable and expected errors in each parameter within the associated uncertainty bands. It seems unlikely that such errors would all exhibit the same consistent bias: errors due to anticipated instrument measurement uncertainties would be expected to be positive or negative at random, and therefore to produce roughly as many low readings as high ones. The consistently positive direction of the reported errors suggests a consistent bias influenced by some common cause, and suggests that the power level may indeed be higher than the calorimetrics would indicate.

There appears to be evidence of higher fuel burn rate at Byron 1 compared to Braidwood 1.

Following approval of a 5 percent power uprate for the units at Byron and Braidwood, Byron 1 has not been able to fully utilize the power increase due to limitations in the high-pressure turbine or steam control valve capacities. Braidwood 1 has not experienced such limitations.

Mr. J. Skolds

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As a consequence of the above observations, we request that Exelon Generation Company, LLC, expeditiously provide the NRC with assurance that Byron 1 is operating within its licensed thermal power limit or take the necessary and appropriate actions to assure that the unit is within the limit.

Please contact me if there are specific questions.

Sincerely,



John A. Zwolinski, Director  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. STN 50-454

cc w/encl: See next page

Byron Station Units 1 and 2

cc:

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532-4351

Illinois Department of Nuclear Safety  
Office of Nuclear Facility Safety  
1035 Outer Park Drive  
Springfield, IL 62704

Document Control Desk-Licensing  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Ms. C. Sue Hauser, Project Manager  
Westinghouse Electric Corporation  
Energy Systems Business Unit  
Post Office Box 355  
Pittsburgh, PA 15230

Joseph Gallo  
Gallo & Ross  
1025 Connecticut Ave., NW, Suite 1014  
Washington, DC 20036

Howard A. Learner  
Environmental Law and Policy  
Center of the Midwest  
35 East Wacker Drive  
Suite 1300  
Chicago, IL 60601-2110

U.S. Nuclear Regulatory Commission  
Byron Resident Inspectors Office  
4448 North German Church Road  
Byron, IL 61010-9750

Ms. Lorraine Creek  
RR 1, Box 182  
Manteno, IL 60950

Chairman, Ogle County Board  
Post Office Box 357  
Oregon, IL 61061

Mrs. Phillip B. Johnson  
1907 Stratford Lane  
Rockford, IL 61107

Attorney General  
500 S. Second Street  
Springfield, IL 62701

Byron Station Manager  
Exelon Generation Company, LLC  
4450 N. German Church Road  
Byron, IL 61010-9794

Site Vice President - Byron  
Exelon Generation Company, LLC  
4450 N. German Church Road  
Byron, IL 61010-9794

Senior Vice President - Nuclear Services  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Vice President  
Mid-West Operations Support  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Senior Vice President  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Chairman  
Will County Board of Supervisors  
Will County Board Courthouse  
Joliet, Illinois 60434

Illinois Emergency Management Agency  
Division of Disaster Assistance &  
Preparedness  
110 East Adams Street  
Springfield, Illinois 62701-1109

Director Licensing  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Regulatory Assurance Manager - Byron  
Exelon Generation Company, LLC  
4450 N. German Church Road  
Byron, IL 61010-9794

Senior Counsel, Nuclear  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Vice President  
Licensing and Regulatory Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Manager Licensing - Braidwood and Byron  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555