



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

August 21, 2008

Mr. Charles G. Pardee  
Chief Nuclear Officer and  
Senior Vice President  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville IL 60555

**SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR EXELON GENERATION  
COMPANY LLC REGARDING DRESDEN NUCLEAR POWER STATION,  
UNIT 3 (NOED 08-3-002)**

Dear Mr. Pardee:

By letter dated August 19, 2008, you requested that the U.S. Nuclear Regulatory Commission (NRC) exercise discretion to not enforce compliance with the actions required in Technical Specification (TS) 3.4.4, "RCS Operational leakage," and TS 3.4.5, "RCS Leakage Detection Instrumentation," for Dresden Nuclear Power Station (DNPS), Unit 3. Your letter documented information previously discussed with the NRC in a telephone conference on August 17, 2008, at 10:30 a.m. (All times discussed in this letter refer to Central Daylight-Savings Time). You stated that on August 16, 2008, Dresden Operations discovered that the Unit 3 drywell floor drain sump could not be pumped to measure leakage and satisfy Surveillance Requirement 3.4.4.1 for TS 3.4.4. Subsequently, your troubleshooting identified that the likely cause was that drywell floor drain sump pump discharge valve 3-2001-105 had failed closed. You stated that valve 3-2001-105 is also a containment isolation valve and repairs to the valve could not be made with the unit online. Because of this condition, the unidentified reactor coolant system (RCS) operational leakage could not be measured and, therefore, the Limiting Condition for Operation (LCO) of TS 3.4.4 could not be met. In addition, TS 3.4.5 requires the drywell floor drain sump monitoring system be operable with the unit in Mode 1 (Power Operation) and this LCO also could not be met. When the LCO cannot be met, both TS 3.4.4 Action C and TS 3.4.5 Action C require the unit to be placed in Mode 3 (Hot Shutdown) within 12 hours. This would have required the shutdown of Unit 3.

You requested that a Notice of Enforcement Discretion (NOED) be granted pursuant to the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.C of the NRC Enforcement Policy, to extend the TS completion time by 7 days in order to reconfigure the drywell floor drain sump monitoring system, such that the drywell equipment drain sump monitoring system could be used to quantify unidentified drywell leakage. Reconfiguration involved filling the drywell floor drain sump and uncovering a portion of the drywell equipment drain sump, such that the floor drain sump overflowed into the drywell equipment drain sump. The drywell equipment drain sump will be used to measure all leakage and all leakage will be treated as unidentified leakage. In addition, the extension would allow Exelon to submit and

the NRC to review an emergency license amendment request to support this alternative method of verifying that unidentified leakage is within limits. This letter documents our telephone conversation on August 17, 2008, when we orally issued this NOED at 12:00 p.m. We understand that the reconfiguration of the drywell sumps was completed on August 17, 2008, and the emergency license amendment was submitted on August 18, 2008. This NOED is considered to be effective until 12:00 p.m. on August 24, 2008, at which time, if the emergency license amendment is not approved, Dresden Unit 3 would be required to re-enter the action statements of TS 3.4.4 and 3.4.5 and be in Mode 3 within 12 hours.

The principal NRC staff members who participated in that telephone conference included: Cynthia Pederson, Director, Division of Reactor Projects (DRP), RIII; Timothy McGinty, Deputy Director, Division of Operating Reactor Licensing (DORL), Office of Nuclear Reactor Regulation (NRR); Mark Ring, Chief, Reactor Projects Branch 1, DRP, RIII; Daneira Melendez, Resident Inspector, Dresden; Christopher Gratton, Senior Project Manager, DORL, NRR; Donald Harrison, Chief, Balance of Plant Branch, Division of Safety Systems, NRR; Gerald Waig, Technical Specifications Branch, Division of Inspection and Regional Support, NRR; Laura Kozak, Senior Risk Analyst, Division of Reactor Safety, RIII; and See Meng Wong, PRA Operational Support and Maintenance Branch, Division of Risk Assessment, NRR.

Your staff requested this NOED after consideration of the safety significance and potential consequences of such an action. Your staff performed a risk assessment of operating Unit 3 during the period of the NOED and found risk to be within DNPS's normal work control limits. The risk assessment was performed for both the period before the alternate leak detection system (reconfiguration of the two sumps) was in place and the period after the alternate leak detection system was in place. The results of the risk assessment for both periods of operation over seven days with the normal drywell floor drain sump system not available showed that there would be no net increase in radiological risk to the public.

Your staff stated that after the alternate leak detection system is in place, the ability to detect increases in drywell leakage is not impacted and, therefore, there is no increase in risk. Your staff stated that during the period before the alternate leak detection system is in place (estimated to be completed within 8 hours), leak detection is degraded. Your probabilistic risk assessment (PRA) assumption was that the Loss of Coolant Accident (LOCA) frequencies would increase by a factor of 10. You noted that this was a conservative assumption because other leak detection capabilities, such as increasing drywell temperatures and Containment Atmospheric Monitoring (CAM), were not credited. Your staff stated that the incremental increase in Core Damage Probability for 8 hours is  $5E-09$  and the incremental increase in Large Early Release Probability for 8 hours is  $7E-10$ . These probabilities are approximately two orders of magnitude below the NRC Risk Thresholds of  $5E-07$  and  $5E-08$  respectively. Your staff concluded that based on the risk increase during this period, the risk is within DNPS's normal work control limits. Your letter also stated that loss of High Pressure Coolant Injection (HPCI) and operator action to initiate the Automatic Depressurization System (ADS) were the dominant contributors to risk. As a result, HPCI was a protected pathway during the period and operating crews were briefed on the importance of ADS for a LOCA scenario. A Region III Senior Risk Analyst reviewed this risk analysis and determined the values to be appropriate.

The NRC reviewed your written request for enforcement discretion dated August 19, 2008, and verified consistency between your oral and written requests. The NRC's basis for this discretion

considered the information discussed above including: (1) the reconfiguration of the drywell floor drain and drywell equipment drain sumps to provide an alternate method of determining reactor coolant system (RCS) operational leakage, (2) the treatment of all RCS leakage as unidentified leakage, (3) the submittal of an emergency license amendment to address the condition, and (4) the qualitative and quantitative risk evaluation of the condition which determined that the calculated risk increases were consistent with normal work control levels and, therefore, would not increase the radiological risk to the public.

Based on the above considerations, the NRC staff concluded that Criterion B.2.1.1.a and the applicable criteria in Section D.4 to NRC Manual Chapter 9900, "Technical Guidance, Operations - Notice of Enforcement Discretion," were met. Criterion B.2.1.1.a states that for an operating plant, the NOED is intended to avoid unnecessary transients as a result of compliance with the license condition and, thus, minimize potential safety consequences and operational risks.

On the basis of the staff's evaluation of your request, we have concluded that granting this NOED was consistent with the Enforcement Policy and staff guidance, and had no adverse impact on public health and safety or the environment. Therefore, we exercise discretion to not enforce compliance with TS 3.4.4 Required Action C.1 and C.2 and TS 3.4.5 Required Action C.1 and C.2 for entry into Mode 3 (Hot Shutdown) within 12 hours and Mode 4 (Cold Shutdown) within 36 hours from 12:00 p.m. on August 17, 2008, until 12:00 p.m. on August 24, 2008. As discussed earlier in this letter, an emergency license amendment request is required and has been submitted for this issue.

As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

*/RA/*

Cynthia Pederson, Director  
Division of Reactor Projects

Docket No. 50-249  
License No. DPR-25

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Letter to C. Pardee from C. Pederson dated August 21, 2008

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR EXELON GENERATION  
COMPANY LLC REGARDING DRESDEN NUCLEAR POWER STATION,  
UNIT 3 (NOED 08-3-002)

cc: Site Vice President - Dresden Nuclear Power Station  
Plant Manager - Dresden Nuclear Power Station  
Regulatory Assurance Manager – Dresden Nuclear Power Station  
Chief Operating Officer and Senior Vice President  
Senior Vice President - Midwest Operations  
Senior Vice President - Operations Support  
Vice President - Licensing and Regulatory Affairs  
Director - Licensing and Regulatory Affairs  
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Associate General Counsel  
Document Control Desk - Licensing  
Assistant Attorney General  
J. Klinger, State Liaison Officer,  
Illinois Emergency Management Agency  
Chairman, Illinois Commerce Commission

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Cynthia Pederson, Director  
Division of Reactor Projects

Docket No. 50-249  
License No. DPR-25

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UNIT 3 (NOED 08-3-002)

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