UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

EA 96-462
EA 96-540

March 10, 1997

Mr. J. E. Cross, President
Generation Group
Duquesne Light Company (DLC)
Post Office Box 4
Shippingport, Pennsylvania 15077

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES - $160,000
(NRC Inspection Report Nos. 50-334/96-08, 50-412/96-08, 50-334/96-09 and 50-412/96-09)

Dear Mr. Cross:

This letter refers to NRC inspections conducted between September 29 and December 21, 1996, at the Beaver Valley Power Station facility, the findings of which were discussed with you and members of your staff during exit meetings on November 27 and December 27, 1996. The purpose of the inspections was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. During the inspections, apparent violations of NRC requirements were identified, as described in the NRC inspection reports sent to you with our letters, dated November 29, 1996, and January 2, 1997, respectively. On January 16, 1997, a Predecisional Enforcement Conference was conducted with you and members of your staff to discuss the violations, their causes, and your corrective actions.

Based on the information developed during the inspections, and the information provided during the conference, five violations are being cited and are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice). Four of the violations relate to deficiencies associated with inadequate control of leak sealant repairs on the Unit 2 reactor head vent system (HVS) in December 1996. The deficiencies resulted in degradation of the system. The remaining violation involves the failure to correct a condition adverse to quality at Unit 1 involving the operation of the reactor with two of the three pressurizer power operated relief valve (PORV) block valves shut for an extended period of time (from 1981 until 1996)

With respect to violations related to the leak sealant repairs on the HVS at Unit 2, sealant was injected into the HVS after operators had identified, in November 1996, a leak of approximately 15 drops per minute from a blind flange downstream of a normally shut 1 inch isolation valve in a dead-leg portion of the HVS. In order to eliminate the identified leakage prior to reactor startup, your station management directed that a temporary leak injection repair be performed. However, in preparing for the injection, your engineering staff erred in specifying the temperature constraints for application of the sealant. Although the type of material injected was suitable for HVS design temperatures, it was not suitable for injection at the lower temperature which existed while the HVS was being repaired. In addition,

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although the leak sealant activities were performed by a vendor, maintenance and quality assurance oversight of the vendor's activities were not adequate to verify key parameters such as the quantity and injection pressure for the leak sealant material, as well as the injection port location. As a result, the sealant failed to harden properly, migrated to unintended portions of the HVS system, and degraded the proper operation of the HVS flow control valves due to sealant accumulating on the valve seats. In addition, the procedural controls used during the activity were not commensurate with the safety importance of the work, and the vendor procedures used to perform the repairs had not been properly reviewed and approved. While the HVS relief flow path was not completely blocked at the time of your investigation of this occurrence, the sealant material would have hardened over a long period of time and may have caused the flow control valves to remain stuck in the closed position, thereby blocking both HVS relief flow paths.

The violations related to this leak sealant repair are described in Section I of the enclosed Notice. In addition to these violations, the NRC is also concerned that this problem was revealed during a post-maintenance test of the affected valves, which was performed after the NRC questioned the leak integrity of the HVS. Absent that questioning, it is apparent that your staff did not intend to perform the testing and was proceeding to return Unit 2 to power operations. Absent the testing that occurred after the NRC questioning, the degradation of the HVS relief function would most likely not have been identified unless the system was called upon to perform its safety function. This represents a significant safety concern, and therefore, the four violations are classified in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

In accordance with the Enforcement Policy, a base civil penalty in the amount of $55,000 is considered for that Severity Level III violation[1] or problem. Your facility has been the subject of escalated enforcement actions within the last 2 years (namely, a Severity Level III violation without a civil penalty issued on September 11, 1996, for failure to comply with 10 CFR 50.62(c)(1), in that, the ATWS Mitigation System Circuitry (AMSAC) had not been designed to perform its function in a reliable manner (EA 96-244)). Therefore, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Even though the problem was revealed through an event during post-maintenance testing, credit is not warranted for identification because it is unlikely that the violations would have been identified without NRC questioning and intervention to determine HVS leak integrity. Credit is warranted for corrective actions which were considered prompt and comprehensive. Those actions included, but were not limited to, (1) replacement and retest of all portions of the HVS degraded by the sealant material; (2) evaluation of existing leak repairs at both units; (3) development of a leak repair checklist; (4) revision of the leak repair procedure; (5) more stringent controls for approval of vendor procedures; (6) establishing interim controls on access of vendors to the site; (7) and other administrative control enhancements to address the weaknesses in the vendor program and the quality control program.

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[1] On November 12, 1996, the base civil penalty amounts for Severity Level III violations or problems changed from $50,000 to $55,000. Since these violations occurred after November 12, 1996, the base amount for this Severity Level III problem is $55,000.

Therefore, to emphasize the importance of appropriate oversight and control of work on safety-related systems, and in accordance with the civil penalty assessment process, a base civil penalty in the amount of $55,000 would normally be issued in this case. However, I have been authorized, after consultation with the Director, Office of Enforcement, to exercise discretion in accordance with Section VII.A.1 of the Enforcement Policy and increase the civil penalty amount to $110,000 in this case because the violations represent particularly poor performance by your quality assurance and maintenance staffs regarding the activities performed by the vendor. Specifically, work instructions, job prebriefs, and overall vendor oversight were inadequate. Also, prior NRC Information Notices 85-90 and 93-90 provided the industry information regarding the importance of appropriate control of leak sealant activities as a result of leak sealant injection problems at Catawba Unit 1 in 1985 and Millstone Unit 2 in 1993. In fact, Information Notice 93-90 specifically noted that the licensee had made no provision to limit the amount of leak sealant injected into the valve in question in that case. In your case, the vendor's injection of more sealant than specified contributed to this occurrence regarding the HVS system.

With respect to the violation set forth in Section II of the enclosed Notice, two of the three PORV block valves were shut in 1981 as a temporary measure to address PORV leakage, as well as seismic concerns related to NRC Bulletin 79-14. Your Updated Final Safety Analysis Report (UFSAR) and technical specifications (TS) bases state that the valves are normally open. Although piping modifications were completed in 1981 to address the seismic concerns, and PORV leakage was resolved in 1982/1983, the block valves were not reopened and the unit continued to operate with the valves in the closed position until the valves were opened on October 8, 1996, following questioning by the NRC. Leaving the valves closed for approximately 13 years, even though the leakage and seismic concerns had been resolved, constitutes a significant condition adverse to quality that was not identified and corrected by your staff.

The NRC is concerned that your staff had several opportunities to identify the incorrect valve lineup, assess the associated risk significance, and correct the condition, including most recently in 1995, yet failed to do so. For example, 10 CFR Part 50, Appendix R fire protection reviews between 1986 and 1990 should have led to the identification of this condition. Also, during your Individual Plant Examination (IPE) evaluations and submittals between 1990 and 1995, your staff had additional opportunities to identify and correct this condition, which differed from the UFSAR configuration. Finally, when submitting a TS amendment in 1995 in response to Generic Letter 90-06, your staff should have recognized that the PORV block valves should be maintained normally open as clearly stated in the bases of your TS amendment submittal. You have recently identified other instances of equipment being found outside its required position, as noted in Inspection Report Nos. 50-334/96-10 and 50-412/96-10 issued on February 21, 1997, and which were the subject of another predecisional enforcement conference with you in the Region I office on March 7, 1997. Enforcement action for those additional findings is still under review by the NRC.

Operation with the pressurizer relief system in a configuration contrary to the UFSAR represents a significant regulatory concern because of the length of time the condition existed, and the failure to identify and correct the problem despite several opportunities. Therefore, the violation has been categorized at Severity Level III in accordance with the Enforcement Policy.

In accordance with the Enforcement Policy, the base civil penalty amount for this Severity Level III violation is $50,000 because it occurred prior to November 12, 1996. Your facility has been the subject of escalated enforcement actions within the last two years, as already described herein; therefore, the NRC considered whether credit was warranted for *Identification and Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit is not warranted for identification since the NRC identified the problem. Credit is warranted for corrective action because your corrective actions were both prompt and comprehensive once the violation was identified in 1996. Those actions included, but were not limited to (1) performing a 10 CFR 50.59 evaluation and restoring the valves to the normally open position; (2) plans to conduct a detailed review of the Unit 1 and 2 UFSARs; (3) completion of a review by your Quality Services Unit of selected NRC Bulletin 79-14 modifications; (4) performing a limited scope review of Unit 1 UFSAR against manual drawings and normal system alignment with similar plans for Unit 2; (5) reviewing the event and importance of adherence to the UFSAR with appropriate staff; and (6) placement of both units' UFSAR on the site computer network in a text searchable form.

Therefore, to encourage prompt and comprehensive identification and correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to propose a $50,000 civil penalty in this case. If not for those corrective actions, the penalty would have been $100,000 for this violation.

As a result, cumulative civil penalties of $160,000 are proposed for these violations.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, and your response, will be placed in the NRC Public Document Room (PDR).

Sincerely,

Hubert J. Miller
Regional Administrator

Docket Nos. 50-334; 50-412
License Nos. DPR-66; NPF-73

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalties

cc w/encl:
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R. LeGrand, Vice President, Nuclear Operations
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