July 16, 1998

Mr. Lew W. Myers Vice President - Nuclear Centerior Service Company P. O. Box 97, A200 Perry, OH 44081

SUBJECT: NRC INSPECTION REPORT NO. 50-440/98011(DRS) AND NOTICE OF VIOLATION

Dear Mr. Myers:

On May 22,1998, the NRC completed a medium and low-voltage power circuit breaker inspection at your Perry Nuclear Plant. The enclosed report presents the results of that inspection.

The inspection involved examination of maintenance and engineering related activities. Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selective examinations of vendor manuals, industry correspondence, calculations, test records, procedures and interviews with maintenance and engineering staff.

Following NRC identification in 1994 of inadequate breaker maintenance at Perry (report 440/94006), you initiated an aggressive refurbishment plan in 1995/1996 and refurbished all medium and low-voltage AC power circuit breakers. However, the team was concerned that most of the DC breakers have not yet been refurbished. You have committed to expedite the schedule for refurbishment of the DC breakers. The team concluded that, in general, there had been very good evaluation and disposition of NRC, vendor, INPO, and other industry experience information.

The team identified two violations of NRC requirements. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding the violations are described in detail in the enclosed report. Please note that 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.

The first violation involved inadequate breaker coil voltage calculations. The 125 Vdc system voltage drop calculations, reviewed by the team, were not performed correctly and lacked rigor in term of design inputs and conclusions. For example, the calculations used non-conservative cable lengths and did not consider the effect of aging factor, temperature correction factor and design margins to determine the actual battery terminal voltage. The second violation pertained

to inadequate test control of low voltage breaker tripping functions. The team identified several instances of incorrect calculation of test parameters which were used during the test, resulting in indeterminate assurance of breaker overcurrent tripping function within prescribed acceptable limits.

We understand that you are in the process of evaluating the effects of the use of an unapproved cleaning agent to clean electrical breaker components. We are concerned regarding the potential consequences of the use of the unapproved cleaner on arc chutes as well as the effect that the cleaner spray could have if it contacted other lubricated breaker components. We request that you provide a response to the unresolved item (50-440/98011-03(DRS) that includes your evaluation results.

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

Sincerely,

Original /s/ J. A. Grobe

John A. Grobe, Director Division of Reactor Safety

Docket No. 50-440 License No. NPF-58

Enclosures: 1. Notice of Violation

2. Inspection Report 50-440/98011(DRS)

cc w/encls:

- H. Hegrat, Manager
- **Regulatory Affairs**
- T. Rausch, Director, Quality
- and Personnel Development
- R. Schrauder, Director
- Nuclear Engineering Department
- W. Kanda, General Manager
- Nuclear Power Plant Department
- N. Bonner, Director, Nuclear
- Maintenance Department
- H. Bergendahl, Director
- Nuclear Services Department
- Ohio State Liaison Officer
- R. Owen, Ohio Department
- of Health
- C. Glazer, State of Ohio Public Utilities Commission

See Attached Distribution

DOCUMENT NAME: G:DRS\PER98011.DRS

(SEE PREVIOUS CONCURRENCE)

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to inadequate test control of low voltage breaker tripping functions. The team identified several instances of incorrect calculation of test parameters which were used during the test, resulting in indeterminate assurance of breaker overcurrent tripping function within prescribed acceptable limits. We also request that you respond to the unresolved item concerning the use of unevaluated cleaning agent to clean electrical breaker components.

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

Sincerely.

John A. Grobe, Director Division of Reactor Safety

Docket No. 50-440 License No. NPF-58

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L. Myers

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