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NIAGARA MOHAWK POWER CORPORATION/301 PLAINFIELD ROAD, SYRACUSE, N.Y. 13212/TELEPHONE (315) 474-15:1

May 27, 1994 NMP2L 1474

Mr. Thomas T. Martin Regional Administrator, Region I. U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, PA 19406-1415

Subject:

Status of EDSFI Unresolved Items

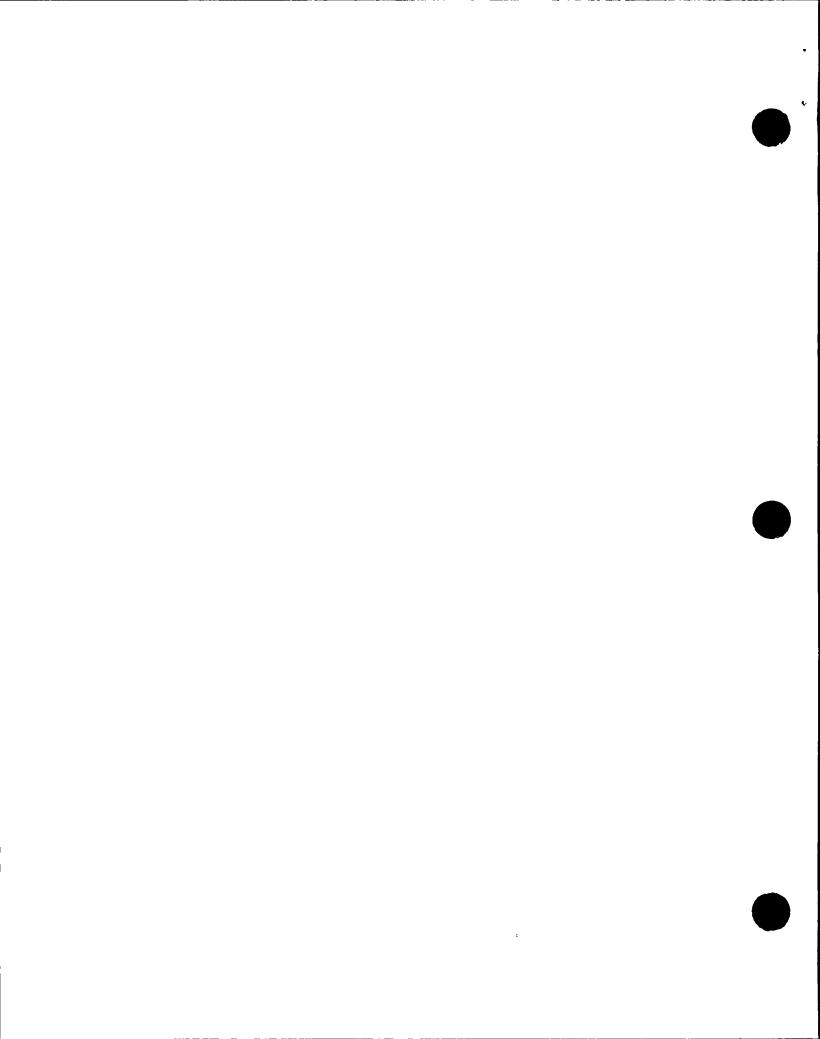
Dear Mr. Martin:

This letter responds to Inspection Report 50-410/93-81 and provides the status of our resolution of the three unresolved items identified during the electrical distribution system functional inspection (EDSFI) conducted by Mr. Leonard Cheung of your office. As discussed in the following paragraphs, Niagara Mohawk's evaluation of these issues has determined that none of these unresolved items represent current safety concerns. Niagara Mohawk has also completed reventative actions to preclude future problems related to these issues. In addition, Niagara Mohawk will be pursuing a Technical Specification (TS) change to permit greater operational flexibility of fuel oil inventory.

Unresolved item 50-410/93-81-01 involved the total harmonic distortion (THD) for the Uninterruptable Power Supply (UPS) units. Engineering evaluation has confirmed that the unloaded THD of approximately 3.9% is consistent with the specification requirement for the THD of the UPS output to not exceed 5% of the fundamental. Although the UPS units in the loaded condition are currently exhibiting a THD of about 9%, Niagara Mohawk has confirmed that the UPS will operate properly with a THD of up to 12% as a result of load generated harmonic distortion. Niagara Mohawk has also determined that a 12% THD does not have an adverse effect on UPS loads. In order to preclude THD problems from potential UPS load growth, Niagara Mohawk has taken the following actions:

- 1. Specification 035A and the vendor instruction manual have been revised to address loaded and unloaded THD requirements.
- 2. The applicable Engineering calculations and modification checklists have been revised to address THD considerations.
- 3. Three electrical maintenance procedures have been revised to require actions if the loaded THD exceeds the acceptance limit of 12%.







Unresolved item 50-410/93-81-02 involved the method of calculating fuel oil use and inventory for the emergency diesel generators (EDGs). Niagara Mohawk has completed revised calculations which address the inspector's concerns and demonstrate that the current TS inventory requirements are conservative with respect to actual fuel oil use. Niagara Mohawk will be pursuing a TS change to permit greater operational flexibility of fuel oil inventory.

Unresolved item 50-410/93-81-03 involved the long term impact on the diesel generators of testing above the design rating. The EDG's are often operated 2-3% above design rating during periodic testing. Niagara Mohawk's evaluation demonstrates that the equivalent design rating operating hours for this testing represents about 10% of the allowable operating hours between overhauls. As the EDG's are not normally operated, except for testing, between overhauls, Niagara Mohawk has concluded, based on consultation with the EDG vendors, that there is no long term impact as a result of testing slightly above the design rating.

The documentation supporting the above evaluations and conclusions is available for review by your inspectors. Should you require any additional information or have any questions concerning these matters, place contact Mr. Keith Ward, Unit 2 Engineering Manager, at 315-349-1043.

Very truly yours,

C. D. Terry

Vice President - Nuclear Engineering

## CDT/AFZ/ksj

cc:

Mr. R. A. Capra, Director, Project Directorate I-1, NRR

Mr. D. S. Brinkman, Senior Project Manager, NRR

Mr. B. S. Norris, Senior Resident Inspector

Records Management

