UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 24, 1996

Mr. James J. O'Connor
Chairman and Chief Executive Officer
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

SUBJECT: INDEPENDENT SAFETY INSPECTION OF DRESDEN NUCLEAR POWER STATION (NRC INSPECTION REPORT 50-237/96-201; 50-249/96-201)

Dear Mr. O'Connor:

I am forwarding the report on the Dresden Nuclear Power Station by the U.S. Nuclear Regulatory Commission's (NRC) Independent Safety Inspection (ISI) team. The purposes of the ISI were: to evaluate the effectiveness of your corrective action programs; to provide an independent assessment of conformance with the design and licensing bases; to evaluate the conduct and effectiveness of maintenance activities, including work processes, post-maintenance testing, and implementation of maintenance rule activities; and to provide an independent assessment of operational safety performance.

The ISI team was large and multi-disciplined in order to provide a thorough, in-depth review. The team, which consisted of 21 members, was managed by a senior NRC manager and included an observer from the state of Illinois. During the two onsite inspection periods, team members also conducted interviews at Commonwealth Edison's (ComEd's) corporate offices in Downers Grove and Chicago. To ensure an independent perspective, the NRC members were selected from NRC offices other than Region III. Additionally, only persons with no significant prior responsibility for regulating ComEd facilities were chosen, and the team manager reported to me.

The ISI was conducted in response to the NRC's concern about the long history of poor performance at Dresden Station. Dresden Station was first placed on the NRC Watch List as a Category 2 plant in 1987. Improved performance resulted in the site being removed from the Watch List in December 1988. Performance subsequently declined and in January 1992, Dresden Station was again placed on the NRC Watch List. For the past several years, safety performance has been cyclic with identified weaknesses in plant material condition, procedure quality and adherence, engineering and licensing support, work performance, communications, execution of management expectations, and supervision and control of work activities.

Improvements have been made in all the areas that were inspected. The rate of improvement has been incremental and has varied significantly among Dresden Station organizations. Safety performance has significantly improved in plant operations while the level of improvement in engineering has not yet resulted in fully effective problem identification and resolution as evidenced by the failure to identify significant weaknesses in design control and maintenance of design basis calculations, and the failure to resolve a number of long-

standing problems affecting safety-systems. The results of improvement initiatives in radiological protection, maintenance, testing, and self-assessment were mixed.

Notwithstanding these improvements, the ISI identified significant weaknesses in the areas of radiation protection, maintenance and testing, engineering, and in the implementation of the corrective action program. A number of significant deficiencies were identified during the inspection. Deficiencies are apparent failures to comply with a regulatory requirement or apparent failures to satisfy a written commitment that is not legally binding. A summary of these deficiencies is provided in Appendix F of the enclosed report, and many of them appear to be related to two root causes: until recently, corporate and site managers were not fully focused on correcting organizational, programmatic, process and material condition problems that have been evident for a number of years; and corporate oversight of and involvement with contractor engineering services firms were not sufficient to ensure the appropriate control and maintenance of design basis calculations.

Corrective actions to resolve the lack of control and maintenance of design basis calculations are only now being implemented after the problem was brought to the attention of Dresden Station senior managers by the ISI. Because of the significance of the engineering and design basis issues, ComEd, in a letter dated November 8, 1996, committed to a number of actions to provide further confidence in the adequacy of the design basis and engineering activities at Dresden Station. The short-term actions were confirmed by an NRC Confirmatory Action Letter, dated November 21, 1996.

The ISI also identified that significant challenges to continued improvement exist. First, the level of emergent work continues to hamper the ability to perform planned work consistently, which is preventing the reduction of the corrective maintenance backlog to the desired level and is unnecessarily challenging plant safety systems and plant operators. Second, corrective actions that have been implemented for programmatic and hardware problems have not been effective in a number of areas, resulting in repetitive problems. Finally, the full implications of the lack of design control and maintenance of design basis calculations have not yet been determined, pending ComEd's continuing reviews in this area.

The results of the ISI were presented during an exit meeting, open to public observation, on December 12, 1996, at Dresden Station. I request that following the review of this report, you determine the additional actions needed to ensure the long-term resolution of the deficiencies identified. NRC Region III will be responsible for followup of the issues identified during the inspection, including the assessment of corrective actions and the determination of any enforcement action that is deemed appropriate.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room. Should you have any questions concerning this inspection, I would be pleased to discuss them with you.

Sincerely,

James M. Taylor
Executive Director for Operations

Dockets: 50-237; 50-249

Enclosure:
NRC Inspection Report
50-237/96-201; 50-249/96-201
w/Appendices

cc w/enclosure:
See next page

cc w/enclosure:

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Downers Grove, IL 60515

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Sincerely,
Original signed by
James M. Taylor

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Executive Director for Operations

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Enclosure:
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50-237/96-201; 50-249/96-201
w/Appendices

cc w/enclosure: **E-Mail report to NRR Event Tracking System (IPAS)**
See next page **E-Mail report to R. Correia (RPC)**

bcc w/Enclosure:
Chairman Jackson
Commissioner Rogers
Commissioner Dicus
Commissioner McGaffigan
Commissioner Diaz

Public	DCD/CentralFiles
JTaylor, EDO, O-17G21	JMilhoan, EDO, O-17G21
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BMcCabe, EDO, O-17G21	EDO R/F, O-17G21
FCongel, AEOD, T-4D28	SRubin, AEOD, T-4D28
EJordan, AEOD, T-4D18	FMiraglia, NRR, O-12G18
AThadani, NRR, O-12G18	RZimmerman, NRR, O-12G1
RGallo, NRR, O-9A1	FGillespie, NRR, O-12G18
WOlmstead, OGC, O-15B18	RBangart, OSP, O-3D23
JLieberman, OE, O-7H5	WBeecher, OPA, O-2G5
GCaputo, OI, O-2G5	HBell, OIG, O-3E4
HMiller, RI	JLinville, RI
SEbneter, RII	ABeach, RIII
PHiland, RIII	JHopkins, RIII
JLynch, RIII	PAO RIII (2)
LCallan, RIV	JPellet, RIV
WJones, RIV	HWong, RIV
Dresden File, RIV	ISI Team Members
CVanderniet, SRI, Dresden	LTremper, OC/LFDCB, T-9E10

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TM	DEDR	EDO
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E-Mail report to NRR Event Tracking System (IPAS)
E-Mail report to R. Correia (RPC)

bcc w/Enclosure:
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