Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

DMB

November 27, 1985

DJS LTR: 85-1120

James G. Keppler
Regional Administrator
Director of Inspection and Enforcement
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

References:
1) DJS Ltr. 85-449 to J. G. Keppler from D. J. Scott, dated May 16, 1985.
2) DJS Ltr. 85-653 to J. G. Keppler from D. J. Scott, dated June 12, 1985.
3) DJS Ltr. 85-720 to J. G. Keppler from D. J. Scott, dated July 9, 1985.
4) DJS Ltr. 85-836 to J. G. Keppler from D. J. Scott, dated August 23, 1985.
5) DJS Ltr. 85-914 to J. G. Keppler from D. J. Scott, dated September 20, 1985.
6) DJS Ltr. 85-1012 to J. G. Keppler from D. J. Scott, dated October 25, 1985.

Dear Sir:

This letter is in reference to Confirmatory Action Letter 85-04 regarding the Main Steam Line Snubber Monitoring System for Dresden Unit 2. Item 2 of this Confirmatory Action Letter requires a verbal notification to Region III within 2 working days followed by a written report and safety evaluation within 30 calendar days.

Five occurrences have been identified during this reporting period.

Occurrence #17 Notification made to J. Harrison by E. Armstrong on November 4, 1985.

Occurrence #18 Notification made to C. Papeviello by J. Achterberg on November 5, 1985.

Occurrence #19 Notification made to D. Danielson by J. Achterberg on November 13, 1985.

NOV 29 1985

1/1

IE36

Occurrence #20 Notification made to J. Harrison by E. Armstrong on November 19, 1985.

Occurrence #21 Notification made to J. Harrison by J. Achterberg on November 22, 1985.

The written reports and safety evaluations when required for these occurrences are attached.

Sincerely,

for D. J. Scott
Station Manager
Dresden Nuclear Power Station

DJS:JA:hjb
Enclosure
cc: J. Almer (w. enc.)
J. Welch (w. enc.)
J. Achterberg (w. enc.)
J. Williams (w. enc.)
File/Misc. (w. enc.)
File/Numerical (w. enc.)

Occurrence #17 (November 4, 1985)

On October 31, 1985 at 1406 to 1409, four spikes occurred on strain gauge (SG) 52 and one spike occurred on SG 51. Although some minor movement was observed on the other strain gauges, none of the indications were above the reportable limit. During this time the unit was in cold shutdown for a 124 day snubber inspection outage and for environmental qualification maintenance. The large magnitude, approximately 15 kips, and short duration, less than 30ms, of the SG spikes, with no corresponding LVDT movement has lead us to the conclusion that the spikes were caused by electrical interference from the operation of nearby equipment and/or valve actuations in the drywell.

Occurrence #18 (November 5, 1985)

Dresden Unit 2 scrammed on September 29, 1985 (Occurrence #16) during shutdown to perform the 124 day snubber inspection and to do Environmental Qualification maintenance. The unit remained in the shutdown condition until November 1, 1985. At that time a normal unit startup was commenced, with criticality being achieved at 1435 hours on November 3, 1985. On November 4, 1985 at 2227 hours the unit was synchronized to the system grid.

During the unit startup several snubber instrumentation monitor actuations were noted. After reviewing the sequence of events during the startup, it was determined that the snubber instrumentation triggers occurred during the withdrawal of the source range monitors (SRM's) and the intermediate range monitors (IRM's). These traces were compared and similarities noted to those obtained during testing on June 3, 1985 which is described in Occurrence #5. That occurrence was attributed to electrical interference generated from the movement of the SRM's and IRM's. Since the unit startup progressed normally, no steamline transients were identified and the source of the traces have been attributed to a specific plant evolution (SRM/IRM movement), the safety significance of this event is minimal.

Occurrence #19 (November 13, 1985)

On November 9, 1985 at 2212 hours Unit 2 was operating at a steady power of 700 MWe. A single spike of 1.6 inches in magnitude with a period of .15 milliseconds occurred on the snubber 46 LVDT while the associated SG and all other SG and LVDT's had no corresponding indications. No transient or unusual plant activities were noted at the time of the event.

Sargent and Lundy was consulted for an analysis of this occurrence. It was concluded that the indication could be attributed to electronic noise. Justification for this conclusion is that a movement of 1.6 inches in 15 milliseconds is outside design limits of the snubber. The only feasible way for the snubber to move this distance in so short a time interval is if the snubber malfunctioned. A malfunction of this type would render the snubber unable to restrain the pipe showing oscillatory motions on the LVDT from there on. No such motions have been detected. Also, there was no corresponding force signature on the snubber SG.

On November 12, 1985 Unit 2 scrammed from 700 MWe. During this time reactor vessel low water level ECCS initiation surveillance was being performed which apparently resulted in a turbine trip followed by a subsequent reactor scram. During SRM and IRM surveillances and startup, numerous spikes occurred. The unit reached criticality at 1114 on November 13, 1985. The traces were reviewed and all occurrences could be correlated to SRM and IRM movement. The safety significance of this occurrence is minimal since the unit startup progressed normally with no known steamline transients and the traces were identified to be generated from a specific plant evolution (SRM/IRM movement).

Occurrence #20 (November 19, 1985)

On November 15, 1985 at 1732 and 1733 hours and on November 16, 1985 at 1650, 1705, 1724 and 2150 spikes of greater than one inch in magnitude were observed on the LVDT for snubber 46. In each instance the unit's power was stable and no unusual plant activities were noted at the time of the events. These single LVDT spikes occurred without any corresponding force signature on the strain gauge associated with snubber 46 or any other SG or LVDT. Therefore, Dresden Station believes these traces were caused by electrical interference.

On November 17, 1985 at 0020 indications were noted on all the SG's and LVDT's 44, 46, 51 and 53. Unit 2 was at 695 MWe operating in a steady state. No unusual activities were noted at the time of the occurrence. The traces were compared to those of Occurrence #1 which was the result of 2-way radio interference. Due to similarities in the traces Dresden Station believes that these traces were caused by 2-way radio interference. In addition, a test was performed to reproduce the traces caused by the 2-way radio. Although the magnitude of the traces was different, possibly due to different radio signal strengths, the form and polarity of the traces were identical.

Occurrence #21 (November 22, 1985)

On November 21, 1985 indications were noted on strain gauges (SG) 44, 46, 50 and 51. Indications were also observed on LVDT 44 and 53. The only indication that was of a reportable level was that of SG 50. At the time of the occurrence Unit 2 was at 734 MWe and holding steady. Upon inspection of the traces they were found to be identical to those reported by Occurrence #20 on November 17, 1985 at 002 hours and were attributed to 2-way radio interference. Therefore, this occurrence can also be attributed to 2-way radio interference. To alleviate this problem Operating personnel were reminded of the sensitivity to 2-way radio transmission of the snubber monitoring system.