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February 16, 2000

Mr. John A. Grobe
Director – Division of Reactor Safety
United States Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

SUBJECT: OVERSIGHT PROCESS FOR D C COOK

Dear Mr. Grobe

The transition to the revised reactor oversight process at the D C Cook nuclear plant was discussed on February 15, 2000, at a meeting at NRC headquarters in Rockville, Maryland. The licensee proposed to remain under the NRC Manual Chapter 0350 process for the first full year after restart of Unit 2 and then switch to full scale implementation of the revised reactor oversight process. The NRC staff counter-proposed a phased-in transition to the revised reactor oversight process with the significance determination process being used for all NRC inspection findings, some of the performance indicators being used immediately and the remainder of the performance indicators adopted as their trailing data became available.

There are advantages and disadvantages to both approaches. The licensee identified accuracy and resource burden problems associated with the historical data needed for many of the performance indicators. The NRC staff identified a problem with not having oversight data for the public following restart of the most troubled plant in the US in the past two years.

The concerns of both the licensee and the NRC staff appear sincere and valid. It would be difficult to select either approach because that would cause the concerns of the unselected party to remain unresolved. Fortunately, there seems to be a compromise available

During the past two years, the licensee's Restart Action Plan and the NRC staff's Manual Chapter 0350 process provided assurance that D C Cook Unit 2 can be restarted with adequate safety margins. It would be reasonable to assume, therefore, that all these assessments, evaluations, tests, reviews, and inspections resulted in performance in each performance indicator category being restored to the GREEN band. If not, the licensee's System Readiness Reviews or the NRC's inspections to close the confirmatory action letter would have flagged non-GREEN performance. In other words, if either the licensee or the NRC staff had any doubts that performance in any performance indicator category was not GREEN, the plant would not be ready for restart.

Accepting this assumption allows every performance indicator in the revised reactor oversight process to be artificially set to GREEN when D C Cook Unit 2 enters Mode 2. For example, the scram performance indicator could assume that there have been zero scrams in the past 7,000 critical hours and the alert and

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notification system performance indicator could assume that 100% of the sirens have been tested successfully. By setting all of the performance indicators to GREEN, the licensee would not have to waste the resources required to collect and validate the historical data. The licensee would have to establish the data collection and reporting infrastructure necessary to report the performance indicators quarterly beginning at the end of the quarter in which D C Cook Unit 2 enters Mode 2.

This process would enable the NRC staff to demonstrate to the public that it was achieving the goal of maintaining safety. Beginning with the quarter in which the plant restarted, the performance indicators would accurately inform the licensee, the NRC staff, and the public how the plant's performance trended relative to an initial "clean slate." At the same time, the NRC staff could focus resources on verifying that D C Cook Unit 1 is ready for restart.

This compromise approach has its faults. The largest fault is that the starting point for the performance indicators is selected arbitrarily and may be non-conservatively higher than actual performance. But actual performance cannot be precisely determined for some of the performance indicators until one or more quarters after restart. The arbitrary starting point only compromises safety when the actual performance level would be low in the WHITE band, in the YELLOW band, or in the RED band. The extensive efforts by the licensee and the NRC staff over the past two years provide reason to believe that the actual performance in all of the performance indicator categories is GREEN or at worst in the high end of the WHITE band.

The artificial starting points track to actual performance levels at different rates for the performance indicators. Some PIs will revert to actual performance within a quarter or two while some can take up to three years. The key point is that all of the performance indicators will accurately trend relative performance beginning with the very first quarter. D C Cook Unit 2 will not enter Mode 2 unless both the licensee and the NRC staff believe that safety margins in all of the performance indicator categories have been adequately restored. The PIs would therefore reveal where, if any, erosions from that condition have occurred following restart.

It seems better to use the revised reactor oversight process in its entirety immediately upon restart of D C Cook Unit 2 than to postpone its use for a full year as proposed by the licensee or to only use some of the process as proposed by the NRC staff. The nuclear industry and the NRC staff have touted the revised reactor oversight process as THE monitoring program for the new millenium. The NRC should use its best tool at the worst plant.

Artificially setting all of the performance indicators to GREEN would be somewhat unfair to other licensees who have earned all GREENs through operational performance. But I doubt that any licensee would trade places with D C Cook's licensee just to earn a "free ticket" to GREEN performance indicators.

Sincerely,

David A. Lochbaum
Nuclear Safety Engineer