Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

July 23, 2004

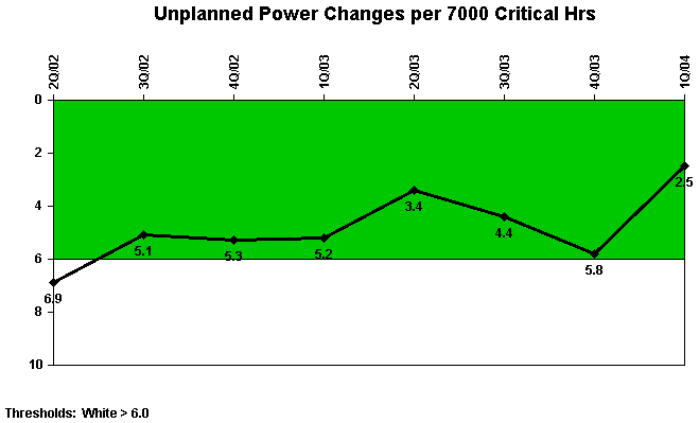
Mr. A. Randolph Blough, Director – Division of Reactor Projects
United States Nuclear Regulatory Commission Region I
475 Allendale Road
King of Prussia, PA 19406-1415

SUBJECT: FORMAL ALLEGATION OF PSEG "GAMING" THE NRC'S REACTOR OVERSIGHT PROCESS

Dear Mr. Blough:

On behalf of the Union of Concerned Scientists, I hereby submit an allegation to the NRC regarding games PSEG played with the NRC's reactor oversight process. This "gaming" contributes to the disparity between the largely favorable assessment of Salem's performance by the NRC's reactor oversight process (as evidenced by mostly "green" findings) and the far more unfavorable assessments of Salem's performance by the Institute for Nuclear Power Operations (as evidenced by the series of "3" ratings) and by the trio of external auditors (i.e., Synergy, Utility Services Alliance, and the Independent Assessment Team).

UCS alleges that PSEG gamed the NRC's Unplanned Power Changes performance indicator for Salem Unit 1. As shown in the graphic, that indicator is currently "green" and shows an improving trend. This indictor is misleading. If PSEG were not "gaming" this indicator, it would actually be trending downwards and would likely have crossed the green/white threshold.



The tabular data accompanying this performance indicator reported that Salem Unit 1 had 0 unplanned power changes in the 1st quarter of 2004, 2 in the 4th quarter of 2003, 1 in 3Q 2003, 0 in 2Q 2003, 4 in 1Q 2003, 0 in 4Q 2002, 0 in 3Q 2002, and 2 in 2Q 2002.

'Unplanned Power Changes' are defined by the NRC as:

> *The number of unplanned changes in reactor power of greater than 20% full-power, per 7,000 hours of critical operation excluding manual and automatic scrams.*

Planned vs. unplanned is addressed by the guidance provided in NEI 99-02 Rev. 2, page 18, lines 25 to 26 which specifies that unplanned changes are those initiated less than 72 hours after discovery of an off-

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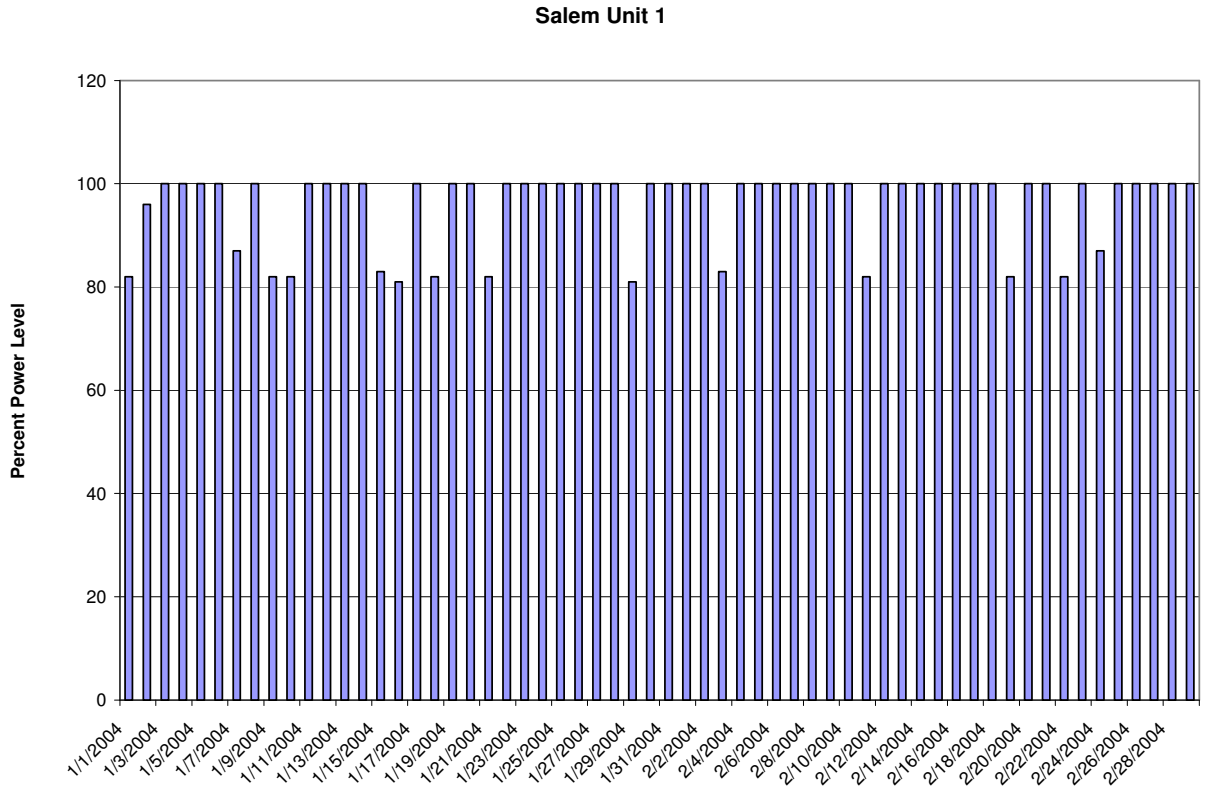
normal condition. Thus, if a downpower is planned more than three days in advance, it does not count against this performance indicator regardless of its size. But a downpower of greater than 20 percent power planned less than three days in advance counts against the indicator.

Between January 1, 2004, and March 31, 2004, PSEG yo-yo'ed Salem Unit 1 nine (9) times between 100 percent power and slightly over 80 percent power as shown in the chart. The majority of these downpowers were performed to cope with circulating water "housekeeping" problems like cleaning the condenser waterboxes.



The Unplanned Power Changes performance indicator is one of three indicators in the Initiating Events cornerstone. Per the NRC:

> *The objective of this cornerstone is to limit the frequency of those events that upset plant stability and challenge critical safety functions, during shutdown as well as power operations. If not properly mitigated, and if multiple barriers are breached, a reactor accident could result which might compromise public health and safety. Licensees can reduce the likelihood of a reactor accident by maintaining a low frequency of these initiating events. Such events include reactor trips (scrams) due to turbine trips, loss of feedwater, loss of off-site power, and other reactor transients.*

By limiting its unplanned power changes to just under 20 percent power, PSEG "gamed" the performance indicator by excluding these events from the count. Thus, the NRC's performance indicator shows an improving trend when performance is actually declining.

Had PSEG been honest and played fair, the Unplanned Power Changes performance indicator would have turned "white" resulting in increased NRC oversight. Better yet, by not playing games with this performance indicator, PSEG might have taken steps to fix the problem during the second or third downpower so as to avoid both counts against the indicator and increased NRC oversight. But PSEG instead chose to cover a performance deficiency of its own making by "gaming" the data.

In summary, we allege that PSEG conspired to conduct a series of unplanned power reductions on Salem Unit 1 of just before the 20 percent trigger so as to avoid having these events count against the NRC's unplanned power changes performance indicator. The company's decisions to reduce power to just above 80 percent were not driven by procedures or equipment necessities, but PSEG's desire to hide its worsening performance from the NRC.

Sincerely,

<ORIGINAL SIGNED BY>

David Lochbaum
Nuclear Safety Engineer
Washington Office