

**From:** Ann Marie Stone  
**To:** Allegations Allegations Region III  
**Date:** Thu, Dec 23, 2004 1:33 PM  
**Subject:** Finally! Closure memo for Byron overpower issue

*Release*

Here it is.....

**CC:** James Heller; Kenneth Lambert; Kenneth O'Brien

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**MEMORANDUM TO:**

Ken O'Brien, EICS Team Leader

**FROM:** Ann Marie Stone, System Engineering Branch Chief

**SUBJECT:** OI INVESTIGATION BYRON NUCLEAR POWER PLANT:  
(OI CASE NO. 3-2003-034) (AMS NO. RIII-2003-A-0139)

In December 2003, the allegations review board requested that OI initiate an investigation to determine the validity of concerns raised at the Byron Station. A concerned individual alleged that the licensee deliberately exceeded the thermal power limit at the Byron Station and that the licensee provided incomplete and inaccurate information to the NRC in their August 15, 2003 response to an NRC request for additional information.

We have reviewed the Report of Investigation for the subject OI investigation as well as the four volumes of exhibits for the case. From our review, we agree with the Agent's Analysis that the licensee **did not** deliberately violate their licensed thermal power limit and that they **did not** deliberately provide incomplete and inaccurate information to the NRC in response to an NRC Request for Information.

As to the first allegation, the licensee did a reasonable job of trying to resolve the differences between Byron's and Braidwood's output and the indications at Byron that they were operating at the high end of the instrument inaccuracies, but for a period of several years, they were unable to find the cause. It was not until they did further evaluations with a common header AMAG installation, discovered noise on the AMAG inputs, and finally did a sodium tracer test, that it became obvious that there was a problem with AMAG. There were several missed opportunities and decisions made on inadequate information that could have led them to the conclusion sooner, but there was no evidence developed that they actually had knowledge, or even a high suspicion, that they were overpowered and failed to act on it. In hindsight, it seemed fairly obvious, but they made a good case for why they didn't believe it at the time. Although the most conservative decision would have been to lower power until a definitive cause of the power discrepancies were known, we can not argue that the licensee deliberately operated above 100 percent power.

As to the second allegation, the licensee certainly did not forward all of the information that was available to the NRC, but it appears that they made a reasonable effort to answer the NRC's questions completely and accurately. One of the problems, according to Mr. Lyons, the author of the questions, was that the questions were not stated clearly or in enough detail to get all of the information we desired. In addition, by the time we started actually reviewing their response, the additional testing listed in the previous paragraph made the response somewhat moot. Therefore, even if the responses were incomplete, they were not really material to any NRC action.

As far as enforcement, we will close our unresolved item to two non-cited violations: (1) exceeding the TS power limits and (2) not incorporating design information into procedures after a modification was made. Specifically, the design of the AMAG modification, as discussed

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in the 50.59 evaluation, was not properly translated into procedures or instructions because there were no procedures to limit the AMAG correction factor to no less than .98 as discussed in the 50.59 evaluation. In fact they used correction factors of less than .98 without doing any additional evaluation as discussed in the 50.59. The inspection report should be issued by January 30, 2005.

We did not identify any new concerns in the OI exhibits.

If you have additional questions, please contact me at extension 9729.