

Commonwealth Edison Byron Nuclear Station 4450 North German Church Road Byron, Illinois 61010

June 22, 1992

Ltr: BYRON 92-0407

U. S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

Dear Sir:

The enclosed Licensee Event Report from Byron Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(i)(B).

This report is number 92-003; Docket No. 50-454.

Sincerely,

R. Pleniewicz

Station Manager Byron Nuclear Power Station

RP/CW/mw

Enclosure: Licensee Event Report No. 92-003

cc: A. Bert Davis, NRC Region III Administrator W. Kropp, NRC Senior Resident Inspector INPO Record Center CECo Distribution List

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On 05/28/92 at 2120, the Circulating Water blowdown radiation monitor (OPROIDJ) (PR) [IL] was declared inoperable due to loss of sample flow spiking problems. A sample and isotopic analysis were required every 12 hours while in the Limiting Condition for Operation Action Requirement (LCOAR). At 0820 on 05/30/92, it was determined that the 0400 sample analysis was performed for radiation monitor OPRO/1J vice OPROIDJ. A sample was subsequently taken from the correct radiation monitor and isotopic analysis began. However, the 12 hour sampling window had already expired. The isotopic activity for OPRO10J was found to be within normal parameters.

The cause of this event was commitive personnel error by a Chemistry technician. The isotopic reports for LCOARs requiring Chemistry department sampling and analysis have been revised to highlight the LCOAR name. Additionally, Chemistry technicians have been counselled on the importance of attention to detail in their job duties.

This event is reportable in accordance with 10CFR50.73(a)(2)(i)(B), any operation or condition prohibited by the plant's Technical Specifications.

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A. PLANT CONDITIONS PRIOR TO EVENT:

Event Date/Time 05/30/92 / 0800

Unit 1 MODE 1 - Power Operation Rx Power 96% RCS [AB] Temperature/Pressure NOP / NOT Unit 2 MODE 1 - Power Operation Rx Power 99% RCS [AB] Temperature/Pressure NOP / NOT

B. DESCRIPTION OF EVENT:

Due to loss of sample flow spiking problems the Circulating Water blowdown radiation monitor (OPR010J) (PR) [IL] was declared inoperable and the Limiting Condition for Operation Action Requirement (LCOAR) was entered on 05/28/92 at 2120. The LCOAR requires sample and isotopic analysis every 12 hours. From the point of LCOAR entry until the 0400 05/29/92 LCOAR sample time, the LCOAR requirements were met. At 2000, on 5/29/92, the third shift chemistry technician drew and then analyzed a sample for monitor OPR010J in accordance with the LCOAR requirements. At 2300, on 5/29/92, the third shift chemistry technician. Included in the turnover was the OPR010J LCOAR, which was next due to be sampled at 0400. At approximately 0400, the first shift chemistry technician went out to take samples for three LCOARs. The chemistry technician mistakenly sampled monitor OPR041J (which was not in LCOAR) and failed to sample monitor OPR010J (which was in LCOAR). The first shift chemistry technician took the three packages to Radiation Protection for review at approximately 0530.

The Radiation Protection Lab Supervisor reviewed the isotopic reports and signed off the three LCOAR packages at 0610. The supervisor failed to notice that the isotopic titled "OPRO41J LCOAR" was attached to the OPRO10J LCOAR package. The Radiation Protection Lab Supervisor then took the three packages to the Shift Engineer for review. The Shift Engineer signed off the three LCOAR packages, but also failed to notice the isotopic titled "OPRO41J LCOAR" in the OPRO10J LCOAR package.

At 0700, the first shift chemistry technician turned over to the second shift chemistry technician that OPR010J was in LCOAR.

At 0810, the Duty Health Physicist saw the isotopics and questioned the status of the LCOARs. The Health Physicist called the Chemistry Lab Supervisor, and questioned if the isotopic for OPR041J was mis-labelled.

The Chemistry Laboratory Supervisor decided to contact the first shift chemistry technician by phone. By 0820, the Chemistry Lab Supervisor was still unable to reach the first shift chemistry technician by phone. The supervisor decided to review the Counting Room log, and the sample. Upon his review, he determined an incorrect sample had been drawn for OPROIDJ. Subsequently, he had the second shift chemistry technician immediately take a sample on monitor OPROIDJ. This sample was obtained at 0825, which was 25 minutes past the 12 hour sampling window requirement of the LCOAR. The Chemistry Lab Supervisor notified Radiation Protection of the concern, and of the steps that had been taken to rectify the situation.

At 0855, the Chemistry Laboratory Supervisor contacted the first shift chemistry technician by telephone. When questioned as to what sample the technician had pulled, he indicated that he had pulled the wrong sample. The Chemistry Lab Supervisor notified Radiation Protection, the Shift Engineer, and the Chemistry Supervisor of the error.

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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

B. DESCRIPTION OF EVENT: (continued)

At 0930 on 05/30/92, a sample was pulled from the circulating water blowdown compositor and then isotopically analyzed. This sample (covering the last 26.5 hours) confirmed that no measureable release had occurred. There were no safety system actuations, and the missed sample did not affect plant operations. This event is reportable per 10CFR50.73(a)(2)(i)(B).

C. CAUSE OF EVENT:

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The cause of this event was cognitive personnel error by a Chemistry technician (non-licensed). Radiation monitor OPR41J was sampled, which was not in LCOAR, instead of the OPR010J radiation monitor. This action resulted in a missed LCOAR sample. Two independent reviews (one licensed, one non-licensed) were performed which approved the LCOAR package as acceptable, but failed to notice that the isotopic analysis report did not match the LCOAR package.

D. SAFETY ANALYSIS:

There were no effects impacting plant or public safety as a result of this event. This conclusion is supported by the sampling and analysis of the OPROIOJ effluent upon discovery of the missed sample, as well as the analysis of a 26.5 hour composite sample of the station blowdown that showed all isotopic activities to be well within normal parameters. A review of ORE-PROIOJ operational data indicates that it was functioning properly during the event and was only "technically" inoperable due to a spiking problem. Had this event occurred under a more severe set of circumstances, (e.g. during a significant release of radioactive material), the Release Tank Discharge radiation monitor (OPROIOJ) would still have monitored released activity. Lastly, the actual sample frequency (12 hours and 25 minutes) was close to the required frequency of once per 12 hours, and thus still could have alerted Operations Personnel to abnormal plant conditions.

E. CORRECTIVE ACTIONS:

An HPES investigation (92-07) was completed for this event.

The Immediate Corrective Actions were:

Isotopic reports for LCOARs have been revised to highlight the monitor name and time of sample. This action will clarify informational presentation weaknesses and allow reviewers to determine whether the correct LCOAR has been met. Additionally, technicians were counselled at a weekly meeting to focus attention to detail. Finally, the individual technician responsible for the incorrect sample was rounselled.

Corrective actions planned to prevent recurrence include:

- A method for sample custody when taking samples in the field will be developed. One such method might require the use of preprinted labels and placing placards on monitors in LCOAR. (NTS #4542009202800-01)
- 2. The feasibility of revising the software for the Nuclear Data Counting Room System to "alarm" when an incorrect monitor EPN is entered will be determined. This software revision should also provide for controls on entering new monitor EPNs into the software when a LCOAR is entered. (NTS #4542009202800-02)

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F. RECURRING EVENTS SEARCH AND ANALYSIS:

a) EVENT SEARCH (DIR. LER)

This is the first occurrence where the wrong sample was obtained, while trying to meet LCO Action Requirements. There have been missed LCOAR samples, prior to this event, as documented on LERs 84-007, 84-009, 84-014, 84-015, 85-001, 85-082, 88-010, and 90-009. None of these were due to an incorrect sample.

Although there have been several previous occurrences of a similar nature (i.e.: missed LCOAR samples), the corrective actions taken have been effective in preventing missed LCOAR samples for the previously identified root causes.

b) INDUSTRY SEARCH (OPEX's NPRDS)

None.

c) <u>NWR</u>

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None.

d) ANALYSIS

None.

G. COMPONENT FAILURE DATA:

		MODEL	MFG PART
MANUFACTURER	NOMENCLATURE	NUMBER	NUMBER

None.