

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CON'T

REPORT  
SOURCE

L	6	0	5	0	0	0	2	6	1	7	0	9	1	6	8	3	8	0	9	3	0	8	3	9
60	61									68	69					74	75							80
DOCKET NUMBER											EVENT DATE					REPORT DATE								

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0	8	L
7	1	9

SYSTEM CODE      CAUSE CODE      CAUSE SUBCODE      COMPONENT CODE      COMP. SUBCODE      VALVE SUBCODE

Z Z 11     
 X 12     
 Z 13     
 Z Z Z Z Z Z 14     
 Z 15     
 Z 16

1 2 3 4 5 6 7 8 9 10     
 11 12     
 13     
 14 15 16 17 18     
 19     
 20

17 LER/RO REPORT NUMBER [ 8 3 ]  
 21 EVENT YEAR  
 23 [ ]  
 24 0 2 4  
 26 SEQUENTIAL REPORT NO.  
 27 [ ]  
 28 0 1  
 29 OCCURRENCE CODE  
 30 T  
 31 [ ]  
 32 0  
 33 X  
 34 18 Z  
 36 19  
 37 0 0 0  
 40 HOURS  
 41 Y  
 42 N  
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 ACTION TAKEN  
 FUTURE ACTION  
 EFFECT ON PLANT  
 SHUTDOWN METHOD  
 ATTACHMENT SUBMITTED  
 NPRD-4 FORM SUB.  
 PRIME COMP. SUPPLIER  
 COMPONENT MANUFACTURER  
 REVISION NO.

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

7	8	9
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FACILITY STATUS      % POWER      OTHER STATUS      METHOD OF DISCOVERY      DISCOVERY DESCRIPTION

(1) 5 G (28)      0 0 0 (29) COLD SHUTDOWN      A (31) OPERATOR OBSERVATION      (32)

7 8 9 0 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

ACTIVITY CONTENT  
RELEASED OF RELEASE (35) AMOUNT OF ACTIVITY (36)  
1 6 G (33) H .003 CURIES OF I-131 AUXILIARY BUILDING VENT TO ATMOSPHERE (36)

PERSONNEL EXPOSURES					
NUMBER			TYPE	DESCRIPTION	
1	7	000	Z		N/A

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	8	0	0	0	(40) N/A

8 9		11 12			
TYPE		DESCRIPTION			
1	9	Z	(42)	N/A	

IE-22

7 8 9 10  
 PUBLICITY  
 ISSUED (45) DESCRIPTION (45)  
 2 0 N (44) N/.  
 7 8 9 10  
 8310070322 830930  
 PDR ADOCK 05000261  
 S PDR  
 NRC USE ONLY  
 68 69 80

NAME OF PREPARER C. L. Wright

PHONE: (803) 383-4524

SUPPLEMENTAL INFORMATION  
FOR  
LICENSEE EVENT REPORT 83-024

I. Cause Description and Analysis

At 0800, Friday, September 16, 1983, with the Plant in a cold shutdown condition, the Iodine filter cartridge was removed from the Particulate Iodine Noble Gas (PING) System for routine analysis. The result indicated the release rate for the previous 24 hours was 2.07 times the Annual Average Release Rate which is allowed by the Technical Specifications. Because this was an unusually high value, the inservice Iodine filter was removed at approximately 1300 hours and sampled. It showed a release rate of 3.1 times the Annual Average Release Rate which is allowed by the Technical Specifications. Upon receiving the analysis results, an effort was begun to isolate and track the Iodine release. The current inservice Iodine cartridge was removed around 1425 hours and counted. These results indicated the Iodine Release Rate was 22.2 times the Annual Average Release Rate or 2.22 times the Technical Specification Instantaneous Release Rate (T.S. 3.9.2). Between 1300 hours on September 16, 1983, and 2010 hours on September 16, 1983, .003 curies of I-131 were released.

II. Corrective Action

The immediate corrective action was to shut down everything which could even remotely be causing the release. At 1823 hours, another Iodine filter cartridge was removed from the PING and sampled. This result showed the release rate had decreased slightly to a value of 2.04. Furthermore, instantaneous readings from the PING showed the release rate was falling. The source of the Iodine was still unknown, but by approximately 2100 hours, the release rate was within acceptable values.

The follow-up corrective action was to repeat evolutions which had been occurring on the previous day in a controlled manner to determine what effect they would have on the release rate. Evolutions with the least possibility of causing an increase in the release rate were chosen to be performed first. Every precaution was to be taken to preclude allowing the release rate to exceed the limits. Concurrent with these activities, prior data was analyzed in an effort to establish a correlation between Plant events and changes in the release rate.

"A" Boric Acid Evaporator, which had been used to process water from the Waste Holdup Tank, was put in service and caused only a slight increase in stack Iodine. "B" Boric Acid Evaporator was then placed in service and resulted in an increase in activity (approximately 20% of the annual average Technical Specification limit) but still not enough to explain the rates experienced during the release event. While these tests were being conducted, the Gas Analyzer was being inspected to determine if it had a flow path which might have allowed Iodine to enter the Plant vent. The equipment checked out without indicating any problem. The next evolution consisted of venting the Volume Control Tank to the Waste Gas System. It did not produce any perceivable change in the release rate. Furthermore, the results indicated it was not a likely suspect because of the activity levels in the VCT.

The Auxiliary Building charcoal filters fan, HVE-5, was stopped with no change noted. The Gas Analyzer was then placed in service and used to sample various tanks. A special sampling collector was put in place of the sample bomb and was used to sample for Iodine on the Pressurizer Relief Tank and the Volume Control Tank. Results of these tests failed to produce a detectable change in release rate. Performing these tests took until Sunday night, September 18, 1983. With no results to indicate a source, a new plan was made to test the operation of HVE-5 with an evaporator in service. These tests resulted in no significant change in Iodine levels.

During the above investigation, extensive Iodine sampling was conducted throughout the Auxiliary Building, and a person was stationed at the PING system to continuously monitor Iodine and to calculate the average annual release rate each hour.

### III. Corrective Action to Prevent Recurrence

The hourly printout on the PING system and the PING charcoal cartridge will be removed and analyzed each working day. The hourly PING printout will be used for further detailed analysis if the cartridge analysis indicates the annual average release rate for the previous day was exceeded. These interim measures will be followed until the proposed Radiological Environmental Technical Specification (RETS), currently under review by the NRC, are approved, at which time the requirements of the RETS will be followed.

**CP&L**

Carolina Power & Light Company

H. B. ROBINSON STEAM ELECTRIC PLANT  
POST OFFICE BOX 790  
HARTSVILLE, SOUTH CAROLINA 29550

SEP 30 1983

83 OCT 4 4 09:09

Robinson File No: 13510C

Serial: RSEP/83-1249

Mr. James P. O'Reilly  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N. W., Suite 3100  
Atlanta, Georgia 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23  
LICENSEE EVENT REPORT 83-024

Dear Mr. O'Reilly:

In accordance with Section 6.9.2 of the Technical Specifications for the H. B. Robinson Steam Electric Plant, Unit 2, the enclosed Licensee Event Report is submitted. This report fulfills the requirements for a written report within fourteen (14) days of a reportable occurrence and is in accordance with the format set forth in NUREG-0161, July, 1977.

Very truly yours,

*R. E. Morgan*

R. E. Morgan  
General Manager  
H. B. Robinson SEG Plant

CLW:FMG:DSC/bss

Enclosure

cc: R. C. DeYoung (40)  
R. A. Hartfield (3)  
INPO (1)

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IC 22  
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