

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 5841

FILE: A/D

FROM: Carolina Power & Light Company Raleigh, N. C. 27602 N. B. Bessac		DATE OF DOC 6-21-74	DATE REC'D 6-27-74	LTR X	TWX	RPT	OTHER
TO: J. F. O'Leary		ORIG 2 signed	CC	OTHER	SENT AEC PDR X SENT LOCAL PDR X		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 40	DOCKET NO: 50-261		

DESCRIPTION:

Ltr trans the following:

DO NOT REMOVE

ACKNOWLEDGED

PLANT NAME: H. B. Robinson Unit #2

ENCLOSURES:

AO 74-10: Reporting abnormal occurrence on 5-10-74, regarding an unplanned release of an estimated 360 gals. low level radioactive liquid to the environment.

(40 cys rec'd)

FOR ACTION/INFORMATION

6-28-74 GC

BUTLER (L)	SCHWENCER (L)	ZIEMANN (L)	REGAN (E)
W/ CYS	W/ CYS	W/ CYS	W/ CYS
CLARK (L)	STOLZ (L)	DICKER (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
PAPP (L)	VASSALLO (L)	KNIGHTON (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
KNIEL (L)	✓PURPLE (L)	YOUNGBLOOD (E)	
W/ CYS	W/ 7 CYS	W/ CYS	W/ CYS

INTERNAL DISTRIBUTION

✓ <u>REG FILE</u>	<u>TECH REVIEW</u>	DENTON	<u>LIC ASST</u>	<u>A/T IND</u>
✓ AEC PDR	✓ HENDRIE	GRIMES	DIGGS (L)	BRAITMAN
✓ OGC	SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓ MUNTZING/STAFF	✓ MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓ CASE	✓ KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSO	✓ PAWLICKI	SPANGLER	LEE (L)	<u>PLANS</u>
BOYD	✓ SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓ STELLO	<u>ENVIRO</u>	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓ HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓ NOVAK	DICKER	SHEPPARD (L)	E. COUPE
✓ GOLLER (L)	✓ ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓ IPPOLITO	YOUNGBLOOD	SMITH (L)	✓ D. THOMPSON (2)
DENISE	✓ TEDESCO	REGAN	✓ TEETS (L)	✓ KLECKER
REG OPR	✓ LONG	PROJECT MGR	WILLIAMS (E)	✓ EISENHUT
✓ FILE & REGION (3)	✓ LAINAS		WILSON (L)	
✓ MORRIS	✓ BENAROYA	HARLESS		
✓ STEELE	✓ VOLLMER			

EXTERNAL DISTRIBUTION

✓ 1 - LOCAL PDR <u>Hartville, S. C.</u>	(1)(2)(10)-NATIONAL LABS	1-PDR-SAN/LA/NY
✓ 1 - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-BROOKHAVEN NAT LAB
✓ 1 - NSIC (BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	1-G. ULRIKSON, ORNL
1 - ASLB	1-B&M SWINEBROAD, Rm E-201 GT	1-AGMED (RUTH GUSSMAN)
1 - P. R. DAVIS	1-CONSULTANTS	Rm B-127 GT
✓ 16 - ACRS XXXXXX SENT TO LIC. ASST.	NEWMARK/BLUME/AGBABIAN	1-RD..MUELLER, Rm F-309
6-28-74 TEETS		GT



Carolina Power & Light Company

June 21, 1974

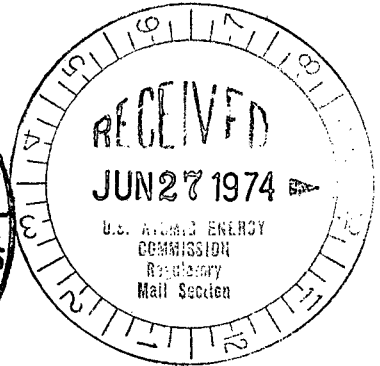
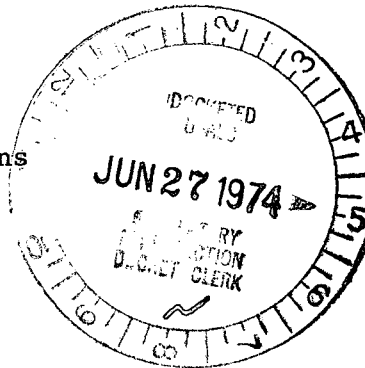
File: NG-3513 and NG-3514

Serial: NG-74-727

Mr. John F. O'Leary, Director
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

50-261

Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
U. S. Atomic Energy Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303



Dear Sirs:

H. B. ROBINSON UNIT NO. 2
LICENSE DPR-23

UNPLANNED RELEASE OF RADIOACTIVE LIQUID EFFLUENTS

This letter is submitted as required by 10CFR20, Paragraph 20.405(a)(3), and describes the unplanned release of approximately 360 gallons of low level liquid effluent during maintenance activities on the secondary system at H. B. Robinson Unit No. 2. This letter supercedes a previous letter on the same subject (NG-74-637, May 23, 1974) and provides a correction of typographical errors and an expansion of corrective actions that were taken to prevent recurrence of such releases. As such, the attached report is identified as an Abnormal Occurrence Report, in accordance with the directive of Region II Compliance. However, Carolina Power & Light Company wishes to reiterate that the reactor was shut down at the time of the incident and that the release was considerably less than the plant is authorized to make on a routine basis during normal operation. We do not consider this an abnormal occurrence. The Commission's insistence on identifying this and other similar incidents as "Abnormal Occurrences" is misleading and alarming to the general public. It is recommended that a critical review of the definition of an abnormal occurrence be initiated by the Commission.

DBW:mvp
Enclosure

Yours very truly,

cc: Messrs. B. J. Furr
W. E. Graham
D. V. Menscer
N. C. Moseley
E. E. Utley
D. B. Waters

N. B. Bessac
Manager
Nuclear Generation

5841

ABNORMAL OCCURRENCE REPORT

1. Report No. 74-10
- 2a. Date May 16, 1974
- 2b. Occurrence Date May 10, 1974
3. Facility H. B. Robinson Unit No. 2
Hartsville, South Carolina 29550

4. Identification of Occurrence

Unplanned release of an estimated 360 gals. of low level radioactive liquid to the environment.

5. Conditions Prior to Occurrence

Reactor shutdown, cooled down and depressurized for scheduled maintenance and refueling. Containment isolated and Integrated Leak Rate Test in progress.

6. Description of Occurrence

The unplanned release of 19.7 millicuries of gross activity to the storm drains from steam generator "A" through leaky valves.

7. Designation of Apparent Cause of the Occurrence

When valve V2-14A was disassembled for maintenance, back leakage of approximately .5 gpm from "A" steam generator occurred. This back leakage was through closed valve V2-13A and check valve V2-8A and spilled on the floor of the turbine building, flowed into the floor drains, and left the plant by the storm sewer.

8. Analysis of Occurrence

At 1700 on May 10, 1974, water leaking from the line of the removed steam driven feedwater pump discharge valve V2-14A was checked and found to be free of radioactivity. A recheck at 0130 on May 11 showed the water to be contaminated and running into the storm drain. Initial efforts to terminate the release consisted of attempting to seat valve V2-13A completely and to isolate the feedwater line by closing the stop valve of stop-check valve V2-8A. These actions were not successful in stopping all leakage and at 0500, May 11 a drum was placed beneath the leak. A flange was then fabricated and placed over the line where valve V2-14A had been removed.

Measurement of the flowrate from the leak showed it to be slightly less than 0.5 gallons per minute. Assuming that the water became contaminated immediately following the check at 1700 on May 10, 360 gallons could have been released.

Based on an isotopic analysis of the water taken at 0130, May 11 the following activities could have been released:

Gross Activity	19.7 millicuries
Tritium	98.0 millicuries
Mn-54	.056 millicuries
Co-58	.98 millicuries
Co-60	.13 millicuries
I-131	12.96 millicuries
I-133	.22 millicuries
Cs-134	2.48 millicuries
Cs-136	.57 millicuries
Cs-137	2.32 millicuries

A sample of the drainage ditch at 0400 on May 11 showed I-131 to be detectable at $7.79 \text{ E-}6 \text{ } \mu\text{Ci/ml}$. A second sample at approximately 0900 on May 11 showed no detectable activities to be present.

The drainage ditch empties into Black Creek immediately below the Robinson Impoundment. Flow from the impoundment was $5.45\text{E}4$ gallons per minute during the incident. The drainage ditch flow was 600 gallons per minute, with a resultant dilution of 910. Therefore, no limits were exceeded in Black Creek. No significant exposure to the general public could have resulted from this incident.

This release is reportable within 30 days in accordance with 10CFR20, Paragraph 20.405(a)(3) in that the maximum permissible concentration of I-131 in an uncontrolled area was exceeded. The I-131 concentration measured in the storm sewer at 0400, May 11 was $7.79\text{E-}6 \text{ } \mu\text{Ci/ml}$ whereas the allowable concentration limit as per 10CFR20, Appendix B, is $3\text{E-}7 \text{ } \mu\text{Ci/ml}$. This specific reading was 26 times the allowable concentration; however, it should be noted that five hours later the concentration in the storm sewer was not detectable.

Though this report is submitted in the form of an Abnormal Occurrence Report, Carolina Power & Light Company does not concur that this incident meets the criteria established for an abnormal occurrence as outlined in Paragraph 1.8.c, Technical Specifications. This effluent release was not in accordance with Paragraph 3.9.1.4; however, this specification establishes limits for normal, planned releases and there is no specification addressed to the significance of unplanned events.

9. Corrective Action

- a. All personnel have been advised to use extra caution when breaking secondary system boundaries due to the potentially contaminated water from steam generator "A."

- b. The secondary system lines containing contaminated water have been drained to the waste holdup tank.
- c. All personnel have been reminded of the existing requirement for a radiation work permit for maintenance on a system which is radioactive or has the potential for becoming radioactive.
- d. All personnel have been reminded of the urgency for immediately terminating in the quickest possible manner any unplanned release of liquid effluent.
- e. Re-emphasis has been placed on the requirement for terminating or continual monitoring of any leakage following opening of a secondary system if the leakage may become contaminated as the system drains.
- f. Comprehensive contamination surveys are being performed twice daily in the turbine building during the refueling outage.
- g. The source of the contaminated water will be removed by plugging the leaking tube in steam generator "A" during the refueling outage.

10. Failure Data

None