

REPORT OF ABNORMAL OCCURRENCE AND/OR INCIDENT

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL (TEMPORARY FORM)

CONTROL NO: 10550

FILE: INCIDENT REPORT FILE

FROM: Carolina Power & Light Co. E.E. Utley Raleigh, N.C.	DATE OF DOC 10-1-75	DATE REC'D 10-4-75	LTR	TWX	RPT XXX	OTHER
TO: Mr. Norman C. Moseley	ORIG 1 Signed	CC 0	OTHER	SENT AEC PDR XXX		
				SENT LOCAL PDR XXX		
CLASS UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-261		

DESCRIPTION:
Letter Re. our letter of June 13, 1975... trans
the following.....

ENCLOSURES:

Letter furnishing additional info. regarding
Insulation, and Piping affected by Failure of
"C" Reactor Coolant Pump Seal.....
W/Attached Tables, Graphs and Diagrams.

(1 Copy Enclosure Received)

PLANT NAME: H.B. Robinson # 2

FOR ACTION/INFORMATION

SAB 10-8-75

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ACKNOWLEDGED

INTERNAL DISTRIBUTION

<u>REG FILE</u>	<u>TECH REVIEW</u>	<u>DENTON</u>	<u>LIC ASST</u>	<u>A/T IND.</u>
NRC PDR	SCHROEDER	GRIMES	R. DIGGS (L)	BRAITMAN
OGC, ROOM P-506A	MACCARY	GAMMILL	H. GEARIN (L)	SALTZMAN
GOSSICK/STAFF	KNIGHT	KASTNER	E. GOULBOURNE (L)	MELTZ
CASE	PAWLICKI	BALLARD	P. KREUTZER (E)	
GIAMBUSSO	SHAO	SPANGLER	J. LEE (L)	<u>PLANS</u>
BOYD	**STELLO		M. RUSHBROOK (L)	MCDONALD
MOORE (L)	**HOUSTON	<u>ENVIRO</u>	S. REED (E)	CHAPMAN
DEYOUNG (L)	**NOVAK	MULLER	M. SERVICE (L)	DUBE (Ltr)
SKOVHOLT (L)	ROSS	DICKER	S. SHEPPARD (L)	E. COUPE
GOLLER (L) (Ltr)	IPPOLITO	KNIGHTON	M. SLATER (E)	PETERSON
P. COLLINS	TEDESCO	YOUNGBLOOD	H. SMITH (L)	HARTFIELD (2)
DENISE	J. COLLINS	REGAN	S. TEETS (L)	KLECKER
REG OPR	LAINAS	PROJECT LDR	G. WILLIAMS (E)	EISENHUT
FILE & REGION (2)	BENAROYA		V. WILSON (L)	*WIGGINTON
MIPC/PE (3)	VOLLMER	HARLESS	R. INGRAM (L)	F. WILLIAMS
STEELE			M. DUNCAN (E)	HANAUER

EXTERNAL DISTRIBUTION

1 - LOCAL PDR Hartville, S.C.	1 - NATIONAL LABS	1 - PDR-SAN/LA/NY
1 - TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGBABIAN	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson		1 - J. D. RUNKLES, Rm E-201 GT
1 - ACRS SENT TO LIC ASST R. Ingram		
** SEND ONLY TEN DAY REPORTS		

CP&L

Carolina Power & Light Company

Raleigh, N. C. 27602

COPYOctober 1, 1975 **Regulatory****File 96**

File: NG-3513 (R)

Serial: NG-75-1559

Mr. Norman C. Moseley, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, N.W.
Atlanta, Georgia 30303

Dear Mr. Moseley:

H. B. ROBINSON UNIT NO. 2

LICENSE NO. DPR-23

INSULATION AND PIPING AFFECTED BY FAILURE
OF "C" REACTOR COOLANT PUMP SEAL, MAY 2, 1975 FOLLOW-UP REPORT

This follow-up report is in response to questions raised by NRC regarding the initial report of June 13, 1975 on wetted insulation and lagging following the "C" reactor coolant pump seal failure. A summary of the piping and insulation inspections to be performed during the next refueling outage is also attached.

The following is a summary of the concerns and responses to NRC questions:

Item 1

Data in Table 2 of the initial report does not coincide completely with data contained in Westinghouse Electric Corporation letter CPS-75-078 dated June 3, 1975.

Item 2

Corrected plant data in Table II of CPS-75-078 is erroneous in at least three instances if Table I was used as basic data for conversion as stated.

Response to Items 1 and 2

Corrected Tables I and II from the Westinghouse Electric Corporation letter CPS-75-078 of June 3, 1975 and Table 2 from the Carolina Power & Light Company letter of June 13, 1975 are enclosed. Also a corrected Graph 1 is included to correspond with the corrected data in the tables mentioned above.

10550

October 1, 1975

Item 3

Graphs 1 and 2 of Mr. Utley's letter do not specify units used for plotting the curves and respective data.

Response to Item 3

The units (PPM) used for plotting the curves and respective data on Graphs 1 and 2 are the same as for Figure 1 shown in Regulatory Guide 1.36.

Item 4

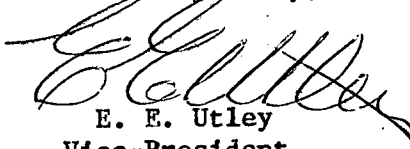
Charts showing the field location of the sampled piping insulation are illegible.

Response to Item 4

Drawings are attached which more clearly indicate the affected pipe and insulation.

The insulation and pipe inspection scheduled for the November 1975 refueling outage will provide data to confirm the results of the initial inspection. Insulation shall be removed from each of the pipes that was submerged, and the pipe and insulation shall be examined for the effects of chloride present. This additional inspection will determine if any pipe degradation has occurred due to chlorides. A procedure to accomplish this is being initiated and will be available on site for NRC review prior to the upcoming refueling outage.

Yours very truly,



E. E. Utley
Vice-President
Bulk Power Supply

CSB:jwk

cc: Messrs. H. R. Banks
N. B. Bessac
E. G. Hollowell
P. W. Howe
J. A. Jones
R. E. Jones
W. B. Kincaid
D. C. Knuth ✓
L. I. Loflin
D. B. Waters

TABLE I
PLANT SUPPLIED DATA

<u>PIPE IDENTIFICATION</u>	<u>LENGTH WETTED (APPROX.)</u>	<u>PIPING SWIPE RESULTS (ppm)¹</u>				<u>INSULATION SAMPLE RESULTS (ppm)²</u>				
		<u>Cl</u>	<u>Fl</u>	<u>Na</u>	<u>SiO₂</u>	<u>Cl</u>	<u>Fl</u>	<u>Na</u>	<u>SiO₂</u>	<u>pH</u>
a. 3/4 - CH - 11B	6 ft.	0.010	ND	1.0	0.50	0.085	ND	150	13.50	9.0
b. 3/4 - CH - 11C	6 ft.	0.030	ND	2.0	0.90	0.060	ND	65	26.25	9.4
c. 8 - SI - 37	50 ft.	0.06	ND	9.0	0.95	0.110	ND	500	41.25	10.1
d. 2 - SI - 63	50 ft.	0.010	ND	2.5	2.70	0.110	ND	98	45.00	9.4
e. 3/4 - CH - 11A	170 ft.	0.035	ND	0.5	0.03	0.110	0.010	400	90.00	10.3
f. 2 - CH - 20	85 ft.	0.035	ND	1.5	0.02	0.075	ND	75	33.00	9.4
g. 2 - CH - 8C	50 ft.	0.06	ND	8.5	0.02	0.090	0.015	1500	120.00	10.3
h. 2 - CH - 17	220 ft.	0.02	ND	3.0	0.06	0.035	ND	100	33.00	9.6

- NOTES: (1) Swipe results ppm refer to ppm of sample liquid (mg material/l solution)
 (2) Insulation sample ppm refer to ppm of sample liquid (mg material/l solution)
 (3) ND = Not Detectable

TABLE II

CONVERTED PLANT DATA

<u>PIPE IDENTIFICATION</u>	<u>PIPING SWIPE RESULTS (mg/dm²)¹</u>				<u>INSULATION SAMPLE RESULTS (ppm)² of INSULATION</u>			
	<u>Cl</u>	<u>Fl</u>	<u>Na</u>	<u>SiO₂</u>	<u>Cl</u>	<u>Fl</u>	<u>Na</u>	<u>SiO₂</u>
a. 3/4 - CH - 11B	0.0003	ND	0.0250	0.0125	2.13	ND	3750	338
b. 3/4 - CH - 11C	0.0008	ND	0.0500	0.0225	1.50	ND	1625	656
c. 8 - SI - 37	0.0015	ND	0.2250	0.0238	2.75	ND	12,500	1031
d. 2 - SI - 63	0.0003	ND	0.0625	0.0675	2.75	ND	2450	1125
e. 3/4 - CH - 11A	0.0009	ND	0.0125	0.0008	2.75	0.25	10,000	2250
f. 2 - CH - 20	0.0009	ND	0.0375	0.0005	1.88	ND	1875	825
g. 2 - CH - 8C	0.0015	ND	0.2125	0.0005	2.25	0.38	37,500	3000
h. 2 - CH - 17	0.0005	ND	0.0750	0.0015	0.83	ND	2500	825

NOTES: (1) Based upon PS84351 Rev. 1 conversion; 500 ml sample solution and 20 dm² area:

$$\frac{VT}{A} = \frac{0.5 \frac{1}{20 \text{ dm}^2}}{20 \text{ dm}^2} = 0.025 \frac{1}{\text{dm}^2} \quad (\text{multiplication factor})$$

(2) Based upon PS83336 KA conversion; 500 ml sample solution and 20 g. insulation sample:

$$\frac{0.5 \frac{1}{.02 \text{ kg}}}{.02 \text{ kg}} = \frac{25 \frac{1}{\text{kg}}}{\text{kg}} \quad (\text{multiplication factor})$$

TABLE 2

Chemical Analysis (PPM)

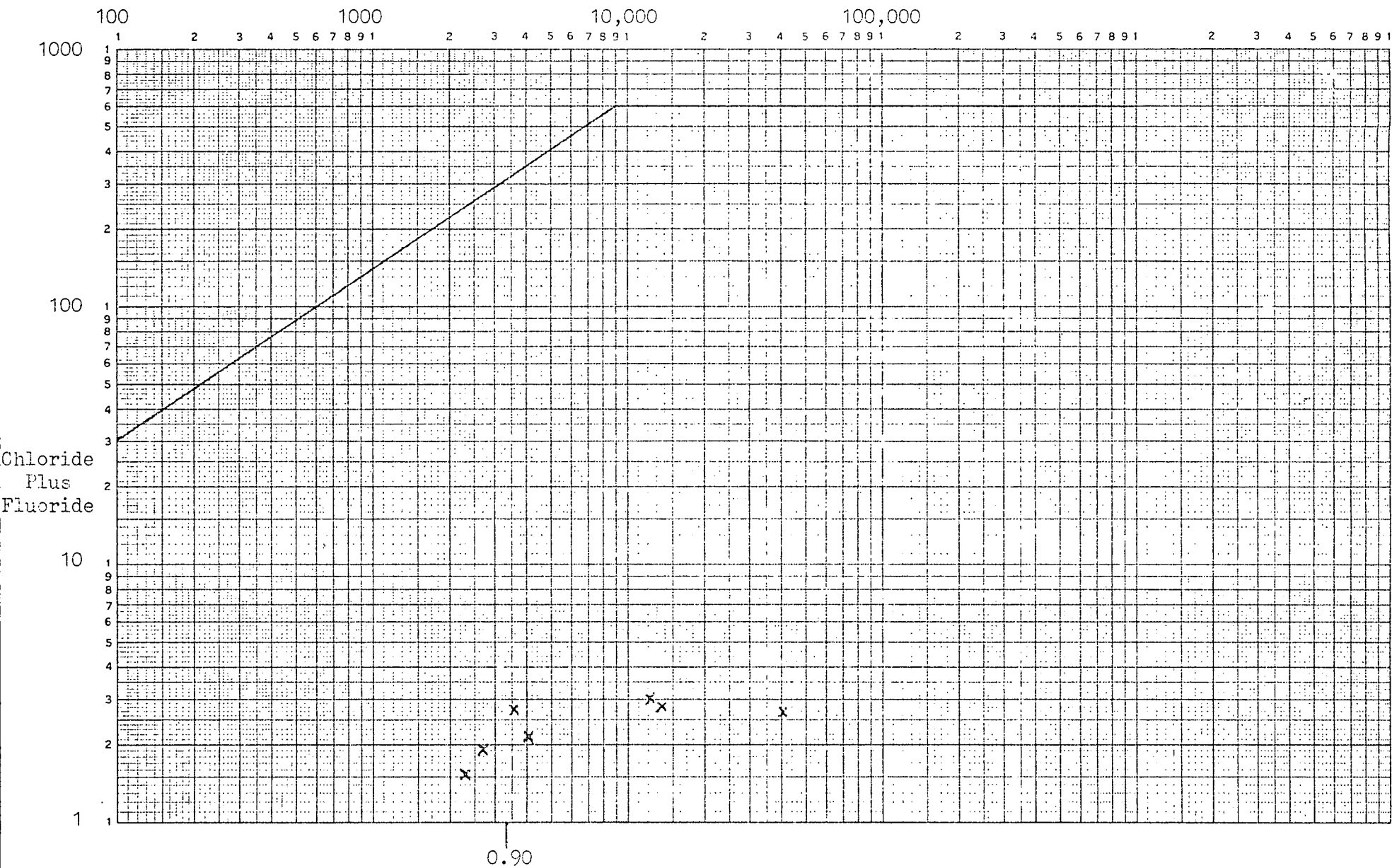
Pipe					
Line Number	Chloride	Fluoride	Silica	Sodium	
2-CH-8C	0.060	ND	0.02	8.5	
3/4-CH-11A	0.035	ND	0.03	0.5	
3/4-CH-11B	0.010	ND	0.50	1.0	
3/4-CH-11C	0.030	ND	0.90	2.0	
2-CH-17	0.020	ND	0.06	3.0	
2-CH-20	0.035	ND	0.02	1.5	
8-SI-37	0.060	ND	0.95	9.0	
2-SI-63	0.010	ND	2.7	2.5	
Insulation					
Line Number	Chloride	Fluoride	Silica	Sodium	pH
2-CH-8C	0.090	0.015	120.00	1500	10.3
3/4-CH-11A	0.11	0.01	90.00	400	10.3
3/4-CH-11B	0.085	ND	13.5	150	9.0
3/4-CH-11C	0.06	ND	26.25	65	9.4
2-CH-17	0.035	ND	33.0	100	9.6
2-CH-20	0.075	ND	33.0	75	9.4
8-SI-37	0.11	ND	41.25	500	10.1
2-SI-63	0.11	ND	45.00	98	9.4

ND - Not detectable

Multiplication factors noted in Table II of Attachment 2 are not included in this data.

GRAPH 1

Sodium Plus Silicate



LINE DIAGRAM 3

MAXIMUM WATER LEVEL: 229 feet 3/4 inches (elevation)

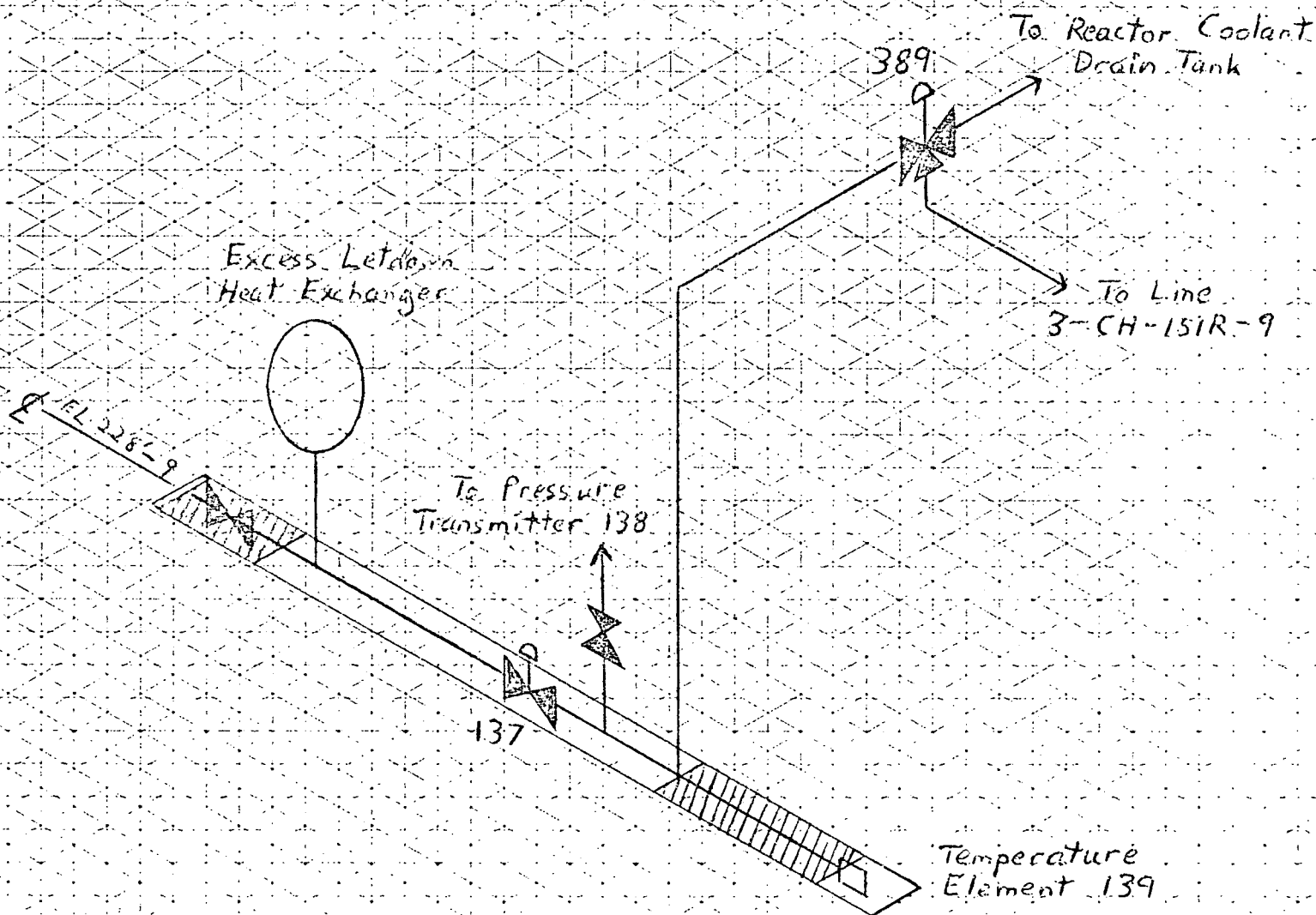
FLOOR ELEVATION: 228 feet



Wetted insulation



Insulation removed



3/4-CH-11B & 3/4-CH-11C

Line Diagrams 1, 2, 4, 5, 6, and 7 are not enclosed because of poor quality when reproduced. See original letter for these diagrams.