

PHILADELPHIA ELECTRIC COMPANY

PHILADELPHIA

LIMERICK GENERATING STATION

UNIT NO. 1

DOCKET NO. 50-352

SEMI-ANNUAL EFFLUENT RELEASE REPORT

NO. 3

JULY 1, 1985 THROUGH DECEMBER 31, 1985

Submitted to
The United States Nuclear Regulatory Commission
Pursuant to
Facility Operating License NPF-39

Preparation Directed By:

G. M. Leitch, Manager
Limerick Generating Station

8603250190 860228
PDR ADOCK 05000352
R PDR

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TABLE OF CONTENTS

I. Introduction

II. Tables

A. Summary of Radioactive Liquid and Gaseous Effluents

1. Liquid Effluents

2. Gaseous Effluents

B. Solid Waste Disposition Report

C. Meteorological Measurements - Joint Frequency Tables

D. Onsite and Offsite Radiation Dose Assessment

III. Attachments

A. Supplemental Information Assumptions Used in Dose Assessments

B. Changes to the Offsite Dose Calculation Manual (ODCM) and Support Documentation

I. INTRODUCTION

This submittal complies with the format described in Regulatory Guide 1.21, "Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants", Revision 1, June, 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

In accordance with LGS Technical Specification 6.9.1.8, this document summarizes the gaseous and liquid effluent releases for the period of July 1, 1985 through December 31, 1985 and the resultant radiation doses from the liquid pathway to members of the public for the period of January 1, 1985 through December 31, 1985. There were no measurable releases of radioactive gaseous effluents during the report period and therefore no offsite doses to members of the public from this pathway nor to members of the public due to their activities on site. Where "0.00E+00" is used, it denotes the less than detectable level for the given isotope. These values are available upon request.

Disposition of solid waste during the report period is described within, to include: the total activity shipped by waste type and an estimate of the error in the reported totals; the estimated composition of each type of waste by isotope; and the solid waste disposition, i.e. number of shipments, mode of transportation, destination, type of container, total container volume, and solidification agent.

A summary report of the meteorological measurements taken during each calendar quarter within the 6-month reporting period is submitted as joint frequency distributions of wind direction and wind speed by atmospheric stability class.

The affected pages and justification for Revision 3 of the Offsite Dose Calculation Manual (ODCM) is included.

II. TABLES

A. SUMMARY OF RADIOACTIVE LIQUID AND GASEOUS EFFLUENTS

UNIT: U1
 USEP: MARY
 DATE: 2/17/86 11:12

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS — SUMMATION OF ALL RELEASES

UNITS	QUARTER 3	QUARTER 4	EST. TOTAL ERROR, %
-------	-----------	-----------	------------------------

A. FISSION AND ACTIVATION PRODUCTS

1. TOTAL RELEASE (EXCL. CI TRIT., GASES, ALPHA):	0.205E-03	0.212E-01	0.180E+02
2. AVERAGE DILUTED CONC. DURING PERIOD	0.383E-07	0.149E-08	
3. PERCENT OF APPLICABLE LIMIT	0.000E+00	0.000E+00	*****

***** CURIE LIMITS NOT
 APPLICABLE. SEE
 II. TABLE - D

B. TRITIUM

1. TOTAL RELEASE	0.136E+00	0.926E+00	0.133E+02
2. AVERAGE DILUTED CONC. DURING PERIOD	0.255E-04	0.648E-07	
3. PERCENT OF APPLICABLE LIMIT	0.000E+00	0.000E+00	*****

C. DISSOLVED AND ENTRAINED GASES

1. TOTAL RELEASE	0.995E-04	0.162E-02	0.200E+02
2. AVERAGE DILUTED CONC. DURING PERIOD	0.186E-07	0.113E-09	
3. PERCENT OF APPLICABLE LIMIT	0.000E+00	0.000E+00	*****

D. GROSS ALPHA RADIOACTIVITY

1. TOTAL RELEASE	0.000E+00	0.658E-02	0.147E+01
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E. VOLUME WASTE RELEASED (PRIOR TO DILUTION)	LITERS	0.519E+07	0.958E+10	0.100E+02
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F. VOLUME DILUTION WATER USED DURING PERIOD	LITERS	0.535E+07	0.143E+11	0.100E+02
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SITE: LIMERICK
UNIT: U1
USER: MART
DATE: 2/10/86 15:27

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS -- SUMMATION OF ALL RELEASES

UNITS	QUARTER 3	QUARTER 4	EST. TOTAL ERROR, %
-------	-----------	-----------	------------------------

A. FISSION AND ACTIVATION GASES

1. TOTAL RELEASE	CI	0.000E+00	0.000E+00	0.000E+00
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	0.000E+00	0.000E+00	
3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	0.000E+00	0.000E+00	

B. IODINES

1. TOTAL IODINE-131	CI	0.000E+00	0.000E+00	0.000E+00
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	0.000E+00	0.000E+00	
3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	0.000E+00	0.000E+00	

C. PARTICULATES

1. PARTICULATES WITH HALF-LIVES > 8 DAYS	CI	0.000E+00	0.000E+00	0.000E+00
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	0.000E+00	0.000E+00	
3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	0.000E+00	0.000E+00	
4. GROSS ALPHA RADIOACTIVITY	CI	0.000E+00	0.000E+00	

D. TRITIUM

1. TOTAL RELEASE	CI	0.000E+00	0.000E+00	0.000E+00
2. AVERAGE RELEASE RATE FOR PERIOD	UCI/SEC	0.000E+00	0.000E+00	
3. PERCENT OF TECHNICAL SPECIFICATION LIMIT	%	0.000E+00	0.000E+00	

II. TABLES

A.1. LIQUID EFFLUENTS

DATE: 2-17-86 11:19

EFFLUENT AND WASTE DISPOSAL REPORT

TABLE A.1

LIQUID EFFLUENTS FOR RELEASE POINT: 1 Liquid Rad Waste Discharge to Schuylkill River

CONTINUOUS MODE				BATCH MODE			
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4		
H3	CI	0.000E+00	0.000E+00	0.136E+00	0.926E+00		
C14	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
NA24	CI	0.000E+00	0.000E+00	0.000E+00	0.101E-03		
P32	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CR51	CI	0.000E+00	0.000E+00	0.000E+00	0.826E-02		
MN54	CI	0.000E+00	0.000E+00	0.000E+00	0.163E-03		
MN56	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
FE55	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
FE59	CI	0.000E+00	0.000E+00	0.000E+00	0.165E-03		
CO58	CI	0.000E+00	0.000E+00	0.169E-03	0.631E-02		
CO60	CI	0.000E+00	0.000E+00	0.355E-04	0.966E-03		
NI63	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
NI65	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CU64	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
ZM65	CI	0.000E+00	0.000E+00	0.000E+00	0.525E-02		
ZM69	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BR83	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BR84	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BR85	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		

ENTER E C J TO ERASE SCREEN AND CONTINUE

UNIT: UI
USER: MART
DATE: 2/17/86 11:20

TABLE A.1

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS FOR RELEASE POINT: 1 Liquid Rad Waste Discharge to Schuylkill River

		CONTINUOUS MODE				BATCH MODE			
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
LIQUID EFFLUENTS (CONTD)									
RU103	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU165	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU166	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AO110M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE125M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE131M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE132	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I130	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I132	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ENTER E C J TO ERASE SCREEN AND CONTINUE

UNIT: UI
 USER: MART
 DATE: 2/17/86 11:20

TABLE A.1

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS FOR RELEASE POINT: 1 Liquid Rad Waste Discharge to Schuylkill River

CONTINUOUS MODE					BATCH MODE				
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
LIQUID EFFLUENTS (CONTD)									
RUI03	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RUI05	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RUI06	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AQ110M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE125M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE127	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE129	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE131M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE132	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I130	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I132	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ENTER C 3 TO ERASE SCREEN AND CONTINUE

SITE: LIMERICK
 UNIT: U1
 USER: MART
 DATE: 2/17/86 11:20

TABLE A.1

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS FOR RELEASE POINT: 1 Liquid Rad Waste Discharge to Schuylkill River

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER		
RELEASED		3	4	3	4		

LIQUID EFFLUENTS (CONTD)

CS134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CS136	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CS137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CS138	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BA139	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BA140	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BA141	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
BA142	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
LA140	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
LA142	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CE141	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CE143	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
CE144	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
PR143	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
PR144	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
ND147	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
U187	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
HP239	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00		

ENTER C C 3 TO ERASE SCREEN AND CONTINUE

PAGE 5 OF 5

SITE: LIMERICK
 UNIT: UI
 USER: MART
 DATE: 2/17/88 11:20

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS FOR RELEASE POINT: 1 Liquid Rad Waste Discharge to Schuylkill River

		CONTINUOUS MODE		BATCH MODE	
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4

LIQUID EFFLUENTS (CONTD)

1	NONE	CI	: 0.000E+00	: 0.000E+00	: 0.000E+00	: 0.000E+00
---	------	----	-------------	-------------	-------------	-------------

1	TOTAL FOR	CI	: 0.000E+00	: 0.000E+00	: 0.137E+00	: 0.947E+00
1	PERIOD	CI	: 0.000E+00	: 0.000E+00	: 0.137E+00	: 0.947E+00
1	(ABOVE)	CI	: 0.000E+00	: 0.000E+00	: 0.137E+00	: 0.947E+00

1	XE-133	CI	: 0.000E+00	: 0.000E+00	: 0.415E-04	: 0.107E-02
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1	XE-135	CI	: 0.000E+00	: 0.000E+00	: 0.580E-04	: 0.543E-03
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1	AS-76	CI	: 0.000E+00	: 0.000E+00	: 0.000E+00	: 2.300E-04
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II. TABLES

A.2. GASEOUS EFFLUENTS

SITE: LIMERICK
 UNIT: U1
 USER: MART
 DATE: 2/10/86 15:27

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 1 North Stack

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	1	2	3	4
1. FISSION GASES							
AR41	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR83M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR85M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR85	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR87	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR88	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR							
PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
(ABOVE)							

ENTER [C] TO ERASE SCREEN AND CONTINUE :

SITE: LIMERICK
 UNIT: UI
 USER: MART
 DATE: 2/10/86 15:28

EFFLUENT AND WASTE DISPOSAL REPORT

QASEOUS EFFLUENTS FOR RELEASE POINT: 1 North Stack

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4	3	4

2. IODINES

I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR							
PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
(ABOVE)							

3. PARTICULATES

C14	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR51	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MNS4	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FE59	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C058	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C060	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZM65	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR95	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS136	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ENTER C J TO ERASE SCREEN AND CONTINUE

PAGE 3 OF 9

SITE: LIMERICK

UNIT: UI

USER: MART

DATE: 2/10/86 15:28

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 1 North Stack

		CONTINUOUS MODE				BATCH MODE			
		UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
	RELEASED		3	4		3	4		4
3. PARTICULATES (CONTD)									
	BAI40	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	CEI41	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	CEI44	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	TOTAL FOR								
	PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	(ABOVE)								

ENTER [C] TO ERASE SCREEN AND CONTINUE :

SITE: LIMERICK

UNIT: U1

USER: MART

DATE: 2/10/86 15:29

EFFLUENT AND WASTE DISPOSAL REPORT

TABLE A.2

GASEOUS EFFLUENTS FOR RELEASE POINT: 2 Unit 1 - South Stack

	CONTINUOUS MODE				BATCH MODE			
	NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4		
1. FISSION GASES								
	AR41	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR83M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR85M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR85	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR87	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR88	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	KR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE131M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE133M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE135M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE135	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	XE138	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	TOTAL FOR	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	(ABOVE)	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ENTER [C] TO ERASE SCREEN AND CONTINUE :

TABLE A.2

SITE: LIMERICK
UNIT: U1
USER: MART
DATE: 2/10/86 15:29

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 2 Unit 1 - South Stack

	CONTINUOUS MODE				BATCH MODE			
	NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4		
2. IODINES								
I I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
TOTAL FOR PERIOD (ABOVE)	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

3. PARTICULATES

I C14	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I CR51	CI	0.900E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I MNS4	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I FES9	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I C058	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I C060	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I ZN65	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I SR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I SR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I ZR95	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I SB124	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I CS134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I CS136	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I CS137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

ENTER C C 3 TO ERASE SCREEN AND CONTINUE

SITE: LIMERICK

UNIT: U1

USER: PART

DATE: 2/10/86 15:29

EFFLUENT AND WASTE DISPOSAL REPORT

TABLE A.2

GASEOUS EFFLUENTS FOR RELEASE POINT: 2 Unit 1 - South Stack

CONTINUOUS MODE				BATCH MODE			
NUCLIDES	UNITS	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER	QUARTER
RELEASED		3	4	3	4	3	4
3. PARTICULATES (CONTD)							
BA140	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE141	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE144	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR							
PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
(ABOVE)							

ENTER [C J] TO ERASE SCREEN AND CONTINUE :

SITE: LIMERICK
 UNIT: UI
 USER: MART
 DATE: 2/10/86 15:30

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 4 Hot Maintenance Shop

		CONTINUOUS MODE			BATCH MODE		
NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
1. FISSION GASES							
AR41	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR83M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR85M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR85	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR87	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR88	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE131M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135M	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR							
PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
(ABOVE)							

ENTER C C J TO ERASE SCREEN AND CONTINUE :

SITE: LIMERICK
 UNIT: UI
 USER: MART
 DATE: 2/10/86 15:30

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 4 Hot Maintenance Shop

NUCLIDES RELEASED	CONTINUOUS MODE				BATCH MODE			
	UNITS	QUARTER 3	QUARTER 4	QUARTER 1	QUARTER 3	QUARTER 4	QUARTER 1	QUARTER 4
I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR PERIOD (ABOVE)	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

2. IODINES

I131	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I133	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TOTAL FOR PERIOD (ABOVE)	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

3. PARTICULATES

C14	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CR51	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MN54	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FE59	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO58	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO60	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN65	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR89	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR90	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR95	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0124	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS136	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS137	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ENTER [C] TO ERASE SCREEN AND CONTINUE :

PAGE 9 OF 9

SITE: LIMERICK
 UNIT: UI
 USER: MART
 DATE: 2/10/86 15:30

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS FOR RELEASE POINT: 4 Hot Maintenance Shop

	CONTINUOUS MODE				BATCH MODE			
	NUCLIDES RELEASED	UNITS	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4	QUARTER 3	QUARTER 4
3. PARTICULATES (CONTD)								
	BA140	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	CE141	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	CE144	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	UNIDENT.	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	TOTAL FOR							
	PERIOD	CI	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	(ABOVE)							

ENTER [C] TO ERASE SCREEN AND CONTINUE :

II. TABLES

B. SOLID WASTE DISPOSITION REPORT

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
PERIOD 07/01/85 TO 12/31/85

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. TYPE OF WASTE	UNIT	6-month Period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m3* Ci	3.05E+2 2.06E+1	2.80E+1
b. Dry compressible waste, contaminated equipment, etc.	m3 Ci	0.00E+0 0.00E+0	0.00E+0
c. Irradiated components, control rods, etc.	m3 Ci	0.00E+0 0.00E+0	0.00E+0
d. Other (describe)	m3 Ci		

*Volume in cubic meters is total container volume shipped.

Total curie content and principal radionuclides were determined by gamma isotopic analysis of each batch of resin. Non-gamma emitting isotopes were determined by using factors scaled to principal gamma emitters in accordance with "AIF/NESP Methodologies for Classification of Low-Level Radioactive Wastes From Nuclear Power Plants", November, 1983.

2. Estimate of major nuclide composition (by type of waste)

Page 2 of 2

Isotope	TYPE A		TYPE B		TYPE C		TYPE D	
	Activity (Ci)	Per Cent	Activity (Ci)	Per Cent	Activity (Ci)	Per Cent	Activity (Ci)	Per Cent
H3								
C14								
CR51	6.08E+0	2.95E+1						
MN54	1.15E-1	5.59E-1						
FE55	1.32E+0	6.40E+0						
CO58	4.87E+0	2.36E+1						
FE59	1.62E-1	7.88E-1						
NI59	2.89E-6	1.40E-5						
CO60	5.57E-1	2.70E+0						
NI63	1.17E-5	5.65E-5						
ZN65	7.42E+0	3.60E+1						
NB94								
SR90								
NB95	7.96E-4	3.86E-3						
ZR95	2.16E-2	1.05E-1						
TC99								
RU103								
RU106								
I129								
I131	4.78E-3	2.32E-2						
CS134								
CS135								
CS136								
CS137								
BA140	1.46E-2	7.08E-2						
CE141	3.68E-4	1.78E-3						
CE144								
PU239								
PU241								
AM241								
AM243								
CM242								
CM243								

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination	Type of Container	Total Container Volume	Solidification Agent
12	Truck	RODNILEI	Type A	306m3	N/A

II. TABLES

C. METEOROLOGICAL MEASUREMENTS - JOINT FREQUENCY TABLES

C. Meteorological Measurements - Joint Frequency Tables

The joint frequency distributions of wind direction and speed, by atmospheric stability class are enclosed as a separate report. The distributions include all three wind levels from Limerick Meteorological Tower No. 1. The distributions were developed on the Radiation and Meteorological Monitoring System - RM21A. Each of these "wind roses" consist of eight pages of joint frequency distributions. There is one distribution for each of the seven P-G stability classes, A through G, and a combined "All Classes" page. The P-G stability classes are determined by the temperature differences measured over the 266-26 feet and the 171-26 feet height intervals. All meteorological data were finalized on the RM21A system. Two NRC format meteorological data tapes covering the periods January, 1985 through June, 1985 and July, 1985 through December, 1985 are currently retained by the Limerick Generating Station Meteorological consultant.

II. TABLES

D. ONSITE AND OFFSITE RADIATION DOSE ASSESSMENT

SITE: LIMERICK
UNIT: U1
USER: MARY
DATE: 2/14/86 17:27

SUMMARY OF MAXIMUM INDIVIDUAL DOSES

TOTAL ACCUMULATION FOR PERIODS:

LIQUID: FROM 1/ 1/85 0:00 TO 12/31/85 23:00
GASEOUS: FROM 1/ 1/85 0:00 TO 12/31/85 23:00

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (HREM)	AGE GROUP	LOCATION DIST (M)	DIR (TOWARD)	% OF APPLICABLE LIMIT	LIMIT (MR)
LIQUID	TOTAL BODY	5.12E-03	CHILD	RECEPTOR 1		1.7E-01	3.0
LIQUID	LIVER	1.05E-02	ADULT	RECEPTOR 1		1.0E-01	10.0
NOBLE GAS	AIR DOSE (GAMMA-MRAD)	0.00E+00		805.	N	0.0E+00	10.0
NOBLE GAS	AIR DOSE (BETA-MRAD)	0.00E+00		805.	N	0.0E+00	20.0
NOBLE GAS	T.BODY (GAMMA)	0.00E+00	ALL	0.		0.0E+00	5.0
NOBLE GAS	SKIN (BETA)	0.00E+00	ALL	0.		0.0E+00	15.0
IODINE+ PARTICULATES	T.BODY	0.00E+00	ADULT	884.	N	0.0E+00	15.0

SUMMARY OF POPULATION DOSES

TOTAL ACCUMULATION FOR PERIODS:

LIQUID: FROM 12/31/84 23:00 TO 12/31/85 23:00
GASEOUS: FROM 1/ 1/85 0:00 TO 12/31/85 23:00

EFFLUENT	APPLICABLE ORGAN	ESTIMATED POPULATION DOSE (PERSON-REM)
LIQUID	TOTAL BODY	9.9E-02
LIQUID	THYROID	5.7E-02
GASEOUS	TOTAL BODY	0.0E+00
GASEOUS	THYROID	0.0E+00

****There were no releases of radioactive gaseous effluents during the above period and consequently no doses to members of the public due to their activities inside the site boundary. Also, there were no doses to members of the public due to their activities inside the site boundary resulting from radioactive liquid releases.

III. ATTACHMENTS

A. SUPPLEMENTAL INFORMATION-ASSUMPTIONS USED IN DOSE ASSESSMENT

III. ATTACHMENTS

A. SUPPLEMENTAL INFORMATION

Facility: Limerick Generating Station - Unit 1

License: NPF-27

1. Regulatory Limits (Technical Specification Limits)

A. Noble Gases:

1. ≤ 500 mRems/Yr - total body - "instantaneous" limits per
 ≤ 3000 mRems/yr - skin Tech Spec. 3.11.2.1
2. ≤ 5 mRads - air gamma - quarterly air dose limits per
 ≤ 10 mRads - air beta Tech Spec. 3.11.2.2
3. ≤ 10 mRads - air gamma - yearly air dose limits per
 ≤ 20 mRads - air beta Tech Spec. 3.11.2.2

B. Iodines, tritium, particulates with half life > 8 days:

1. ≤ 1500 mRems/yr - any organ - "instantaneous" limits per
(inhalation path) Tech Spec. 3.11.2.1
2. ≤ 7.5 mRems - any organ - quarterly dose limits per
Tech. Spec. 3.11.2.3
3. ≤ 15 mRems - any organ - yearly dose limits per
Tech. Spec. 3.11.2.3

C. Liquid Effluents:

1. Concentration ≤ 10 CFR20 - "instantaneous" limits per
Appendix B, Table II, Col. 2 Tech. Spec. 3.11.1.1
2. ≤ 1.5 mRems - total body - quarterly dose limits per
 ≤ 5 mRems - any organ Tech. Spec. 3.11.1.2
3. ≤ 3 mRems - total body - yearly dose limits per
 ≤ 10 mRems - any organ Tech. Spec. 3.11.1.2

2. Maximum Permissible Concentrations

MPCs are not used to calculate permissible release rates and concentrations for gaseous releases.

The MPCs specified in 10CFR20, Appendix B, Table II, Column 2 for identified nuclides are used to calculate permissible release rates and concentrations for liquid releases per LGS Technical Specification 3.11.1.1.

3. Average Energy

$\bar{E}$ determination based on liquid release for the report period is 0.0189 Mev.

4. Measurements and Approximations of Total Radioactivity

A. Fission and Activation Gases

The method used is the Canberra Series 90 Counting System;
GS - Gas Marinelli

B. Iodine:

The method used is the Canberra Series 90 Counting System;
CH - Charcoal Cartridge

C. Particulate:

The method used is the Canberra Series 90 Counting System;
PT - Air Particulate Sample, 47 mm filter.

D. Liquid Effluents:

The method used is the Canberra Series 90 Counting System
and the Radwaste Liquid Discharge Pre-Release Method with a
3.5 Marinelli.

5. Batch Releases

A. <u>Liquid</u>	<u>Q3</u>	<u>Q4</u>
# of Batch Releases:	78	95
Total Time for batch releases, minutes	5752	6819
Maximum time period for a batch release, minutes	120	94
Average time period for batch release, minutes	74	72
Minimum time period for a batch release, minutes	56	45
Average stream flow (blowdown) during periods of release of effluents into a flowing stream, gpm	5646	5846

B. Gaseous

None

6. Abnormal Releases

A. Liquid

None

B. Gaseous

None

7. Description of Gaseous Release Points

Release Point 1 = North Stack

Release Point 2 = Unit 1 - South Stack

Release Point 4 = Hot Maintenance Shop

8. Description of Liquid Release Points

Release Point 1 - Liquid Radwaste Discharge to Schuylkill River

9. Liquid Dose Receptor Description

Receptor 1 = LGS Liquid Radwaste Discharge Point

Receptor 2 = Citizens Home Water Company

Receptor 3 = Phoenixville Water Company

Receptor 4 = Philadelphia Suburban Water Company

Receptor 5 = City of Philadelphia Crew Course

III. ATTACHMENTS

- B. CHANGES TO THE OFFSITE DOSE CALCULATION MANUAL
AND SUPPORT DOCUMENTATION

III. Changes to the Offsite Dose Calculation Manual and Support Documentation

Revision 3 to the Offsite Dose Calculation Manual (ODCM) is submitted for the period in which the change became effective. The attached document cover sheet indicates review and approval of the change by Engineer-in-Charge, Nuclear and Environmental Section of Mechanical Engineering Division and PORC approval by Limerick Station Superintendent. The following statements have been evaluated and determined to apply to the change:

- A. Justification for the change is the replacement of Dairy Farm 5C1 of the Limerick Generating Station's Radiological Environmental Monitoring Program (REMP). Dairy Farm 5C1 has gone out of business. Dairy Farm 17C2 has replaced Farm 5C1 as part of the REMP.
- B. This change will not reduce the accuracy or reliability of dose calculations or setpoint determinations. The affected table (Page 18 of the ODCM) and map (Page 20 of the ODCM) are included.

ATTACHMENT 8.1

OFFSITE DOSE CALCULATION MANUAL

Revision 3

LIMERICK GENERATING STATION

UNITS 1 AND 2

PHILADELPHIA ELECTRIC COMPANY

Docket Nos. 50-352 & 50-353

PORC Approval: _____

SM Lind
Station Superintendent

Nuclear and Environmental
Section Approval: _____

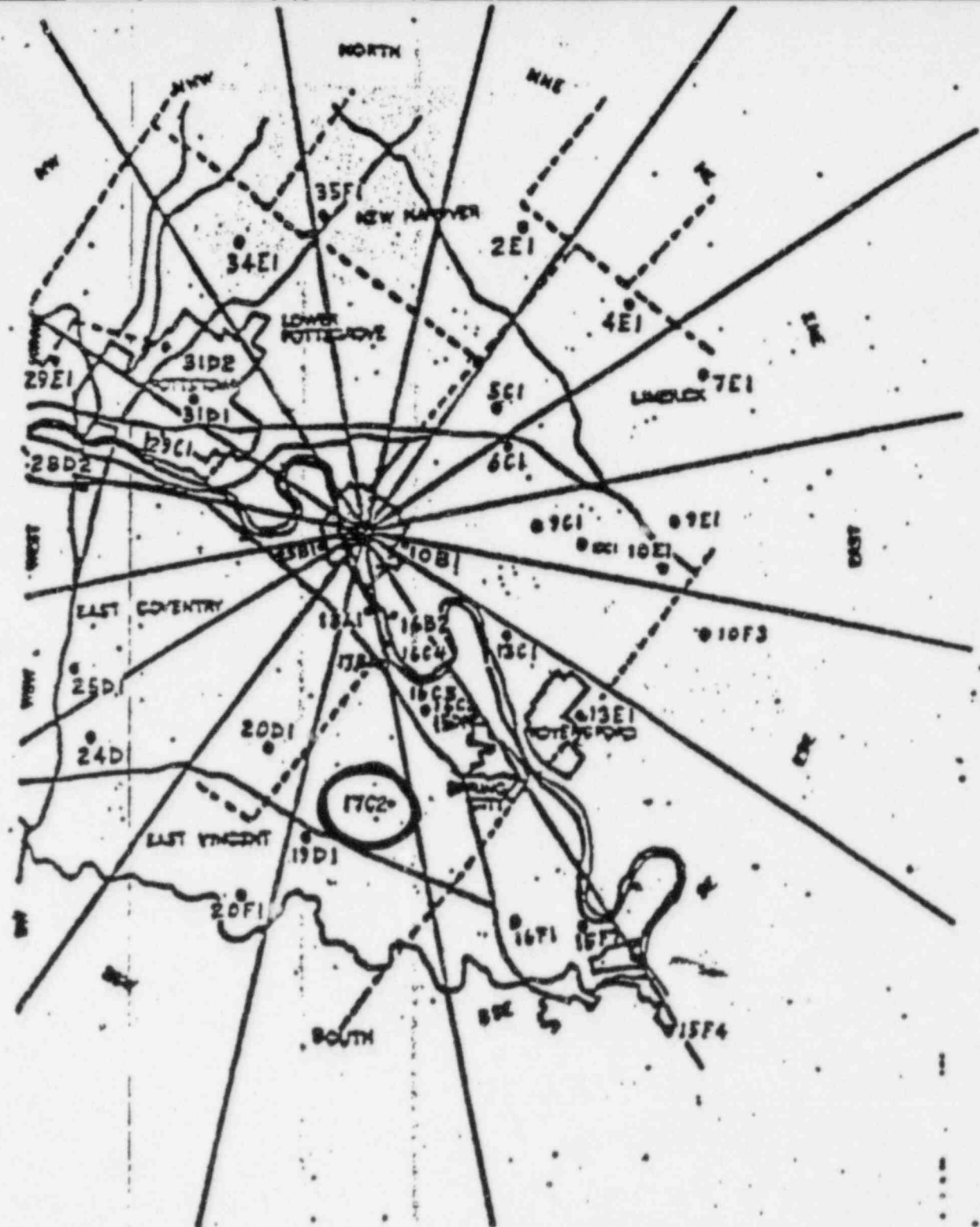
Samuel
E. I.

LGS Health Physics Representative: _____

Martha Alhijez
284N5

Nuclear and Environmental
Representative: _____

George B. Rombold



ENGR. NEC
 H.P. MAC
 DATE 12-27-85

2 miles

LIMERICK GENERATING STATION
 UNITS 1 AND 2

ENVIRONMENTAL SAMPLING STATIONS
 INTERMEDIATE DISTANCE

FIGURE VI.A.2

20

4. Ingestion

6 LOCATIONS

Milk (d)

1) Control Station

22P1

2)

17C2

3)

10B1

4)

25B1

(d) Milk samples are taken from several farms surrounding LGS. These farms include those with the highest dose potential from which samples are routinely available, as well as a control station. The locations of the farms are not listed herein due to a long-standing agreement with the farmers involved. In return for being allowed to sample and analyze the milk, PECO has agreed not to divulge the location of the farms.

Fish (e)

1) Middle of Vincent Pool
Upstream to Pigeon Creek.

16C3

SSE

1.9

(e) Two species of recreationally important fish, sunfish and brown bullhead will be sampled if available.

2) Upstream of LGS, Keim Street
Bridge to Hanover Street
Bridge (control)

29C1

WNW

3.2

Food Products
(f)

1) LGS Information Center

11S1

ESE

0.5

(f) Food products are to be samples as part of the LGS Technical Specification Program only if milk sampling is not performed. The milk pathway, which results in a higher maximum dose to humans than the vegetation pathway is monitored at a location near the site, and is a better indicator than vegetation samples. In addition, no crops grown in the vicinity of LGS are irrigated with water in which liquid plant wastes have been discharged.

ENGR.
H.P.
DATE

Mac
12-22-85