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030-20934

November 30, 2000

Mr. John D. Kinneman  
Chief, Nuclear Material Safety Branch 2  
Division of Nuclear Material Safety  
U.S. Nuclear Regulatory Commission, Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

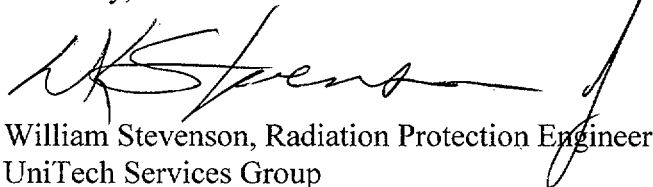
RE: License No. 37-23341-01 Quarterly Report- 3<sup>rd</sup> Quarter 2000

Dear Mr. Kinneman:

In accordance with condition No. 16 of the referenced license, enclosed is the quarterly report for the third quarter of 2000.

If you have any questions or comments, please contact me or Michael Fuller, Manager, Health Physics & Engineering at (413) 543-6911.

Sincerely,

  
William Stevenson, Radiation Protection Engineer  
UniTech Services Group

cc: M. Fuller, Manager Health Physics and Engineering  
Dan Neely, Plant Manager/RSO, UniTech Royersford

1 2 8 9 2 2

NMSS/RGN MATERIALS-002



2000 - ROYERSFORD WASTEWATER DISCHARGE SUMMARY												
MONTH	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NOV	DEC
GALLONS	240000	245000	1185000	1065000	570000	455000	350000	480000	865000			
H-3	2.80E-05	2.80E-05	2.80E-05	8.29E-06	8.29E-06	8.29E-06	9.46E-06	9.46E-06	9.46E-06			
mCi H-3	25.4352	25.9651	125.5863	33.417197	17.885261	14.276831	12.532135	17.186928	30.972277			
C-14	2.03E-06	2.03E-06	2.03E-06	2.43E-06	2.43E-06	2.43E-06	3.60E-06	3.60E-06	3.60E-06			
mCi C-14	1.844052	1.88246975	9.1050068	9.7953908	5.2426035	4.1848853	4.7691	6.54048	11.78649			
K-40	NF	NF	NF	1.87E-07	NF	2.05E-07	NF	NF	NF			
Cr-51	NF	NF	NF	4.28E-07	NF	NF	NF	NF	NF			
Mn-54	2.34E-07	2.37E-07	6.14E-07	6.89E-07	1.49E-06	6.03E-07	9.90E-07	3.39E-08	3.87E-07			
Fe-55	6.89E-06	6.89E-06	6.89E-06	1.45E-05	1.45E-05	1.45E-05	1.01E-05	1.01E-05	1.01E-05			
Fe-59	NF	NF	NF	NF	1.20E-07	NF	NF	NF	NF			
Co-57	NF	NF	NF	NF	NF	NF	NF	NF	NF			
Co-58	4.07E-07	3.60E-07	5.14E-07	3.26E-07	6.24E-07	8.15E-07	3.30E-07	8.00E-08	1.45E-07			
Co-60	8.10E-07	7.43E-07	1.68E-06	1.28E-06	1.27E-06	1.61E-06	2.76E-06	6.53E-07	1.53E-06			
Ni-63	1.52E-07	1.52E-07	1.52E-07	8.87E-07	8.87E-07	8.87E-07	1.24E-06	1.24E-06	1.24E-06			
Zn-65	7.71E-08	7.71E-08	4.12E-07	4.43E-07	1.12E-07	2.13E-07	NF	NF	1.38E-07			
Sr-89	*	*	*	*	*	*	*	*	*			
Sr-90	3.32E-09	3.32E-09	3.32E-09	2.94E-09	2.94E-09	2.94E-09	2.17E-08	2.17E-08	2.17E-08			
Zr-95	NF	NF	NF	NF	NF	NF	9.29E-08	NF	NF			
Nb-95	3.09E-08	NF	NF	6.65E-08	3.84E-08	1.06E-07	NF	NF	NF			
Tc-99	2.90E-07	2.90E-07	2.90E-07	9.71E-08	9.71E-08	9.71E-08	5.55E-08	5.55E-08	5.55E-08			
Ag-110m	NF	NF	7.06E-08	NF	NF	7.70E-08	NF	NF	NF			
Sb-125	NF	NF	NF	NF	NF	NF	NF	NF	NF			
I-129	1.73E-08	1.73E-08	1.73E-08	1.05E-08	1.05E-08	1.05E-08	5.03E-09	5.03E-09	5.03E-09			
Cs-134	1.16E-07	1.01E-07	1.71E-07	4.57E-08	NF	NF	9.59E-08	4.26E-08	5.58E-08			
Cs-137	5.30E-07	5.59E-07	5.81E-07	2.79E-07	3.78E-07	5.88E-07	7.28E-07	4.82E-07	5.29E-07			
Eu-152	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Eu-154	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Ra-226	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Th-228	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Th-234	ND	ND	9.78E-07	ND	ND	ND	9.77E-07	7.32E-07	ND			
U-234	ND	ND	ND	ND	ND	ND	ND	ND	ND			
U-235	ND	3.50E-08	ND	ND	ND	ND	ND	ND	ND			
U-238	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Pu-238	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Pu-239	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Np-237	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Am-241	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Cm-244	ND	ND	ND	ND	ND	ND	ND	ND	ND			
CONC.	9.56E-06	9.46E-06	1.24E-05	1.92E-05	1.95E-05	1.97E-05	1.74E-05	1.34E-05	1.42E-05	0.00E+00	0.00E+00	0.00E+00
ACTIVITY	8.6821602	8.77575868	55.499008	77.568329	42.142895	33.959276	23.049153	24.427403	46.511585	0	0	0

ANNUAL TOTALS  
5455000 GALLONS

303.25723 mCi H-3

55.150478 mCi C-14

320.61557 mCi AORN

Notes: CONC. is total concentration for all nuclides except H-3 and C-14.

All concentrations are in uCi/ml. All activities are in mCi.

NF - Not found in gamma spectra search

<MDA - Less than minimum detection limit for analytical method.

\*Sr-89/90 analyzed and reported as total Sr unless >50 pCi/L. Conservatively assigned to Sr-90

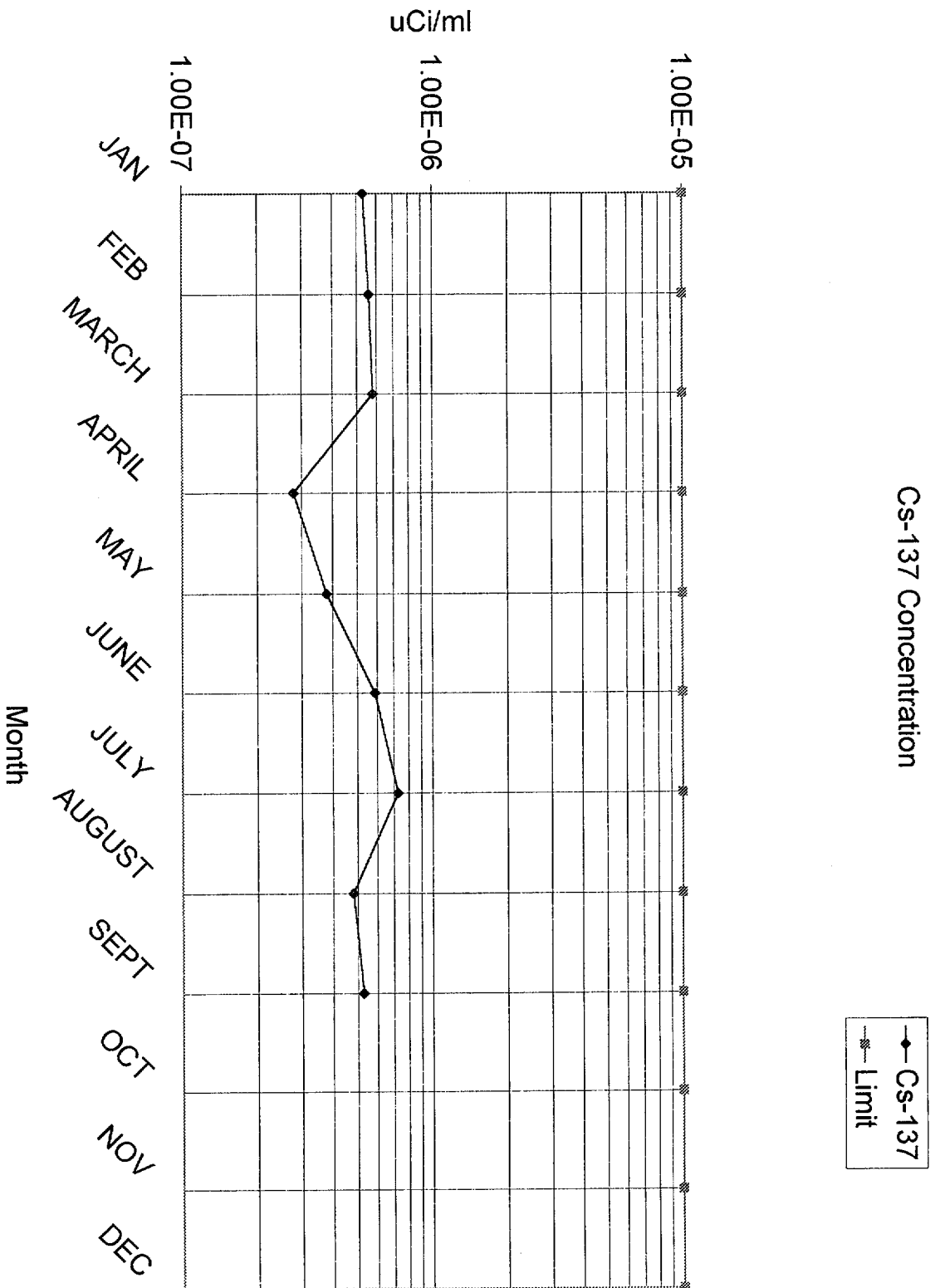
AORN - All other radionuclides (except for H-3 and C-14)

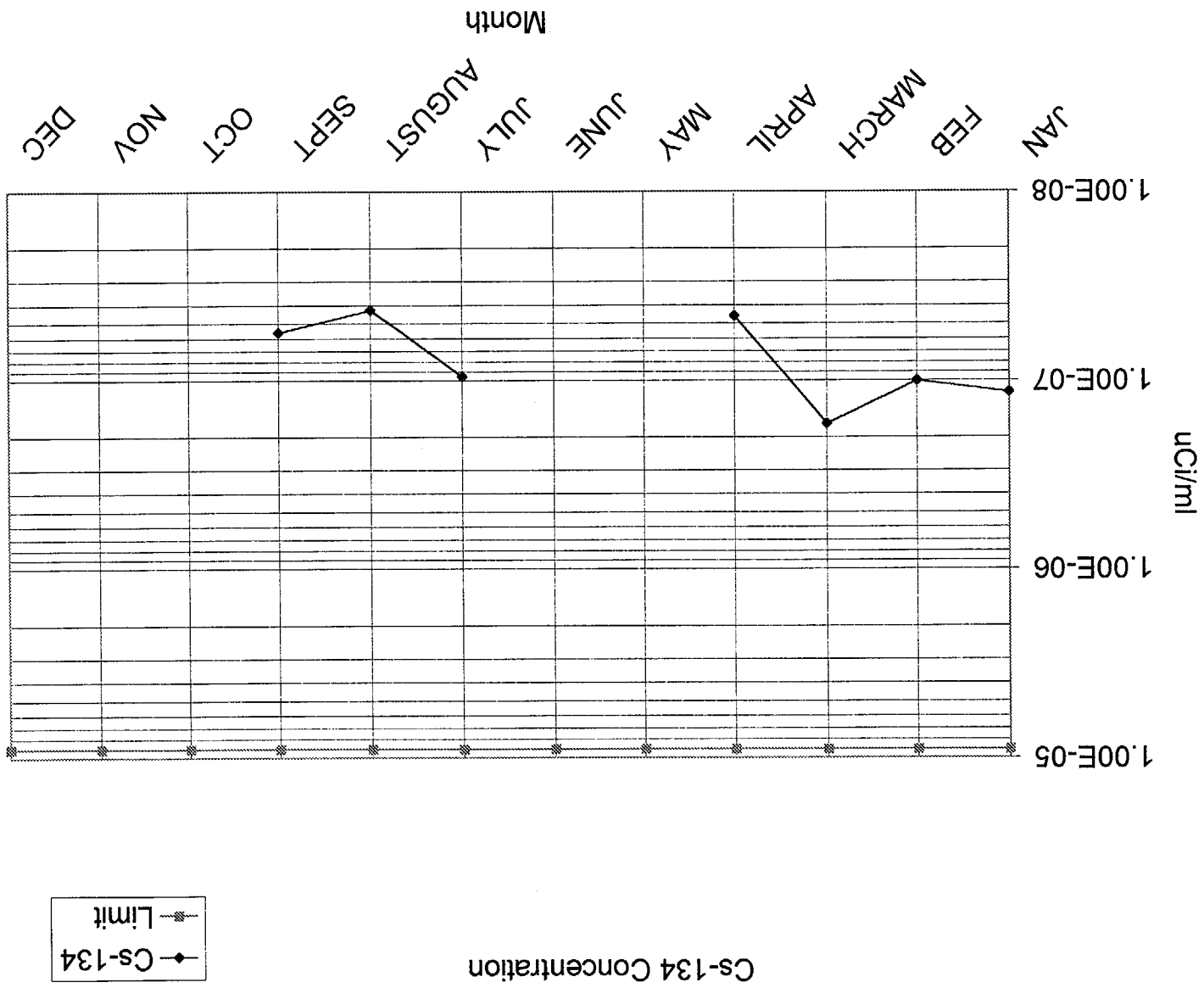
ND - No Data

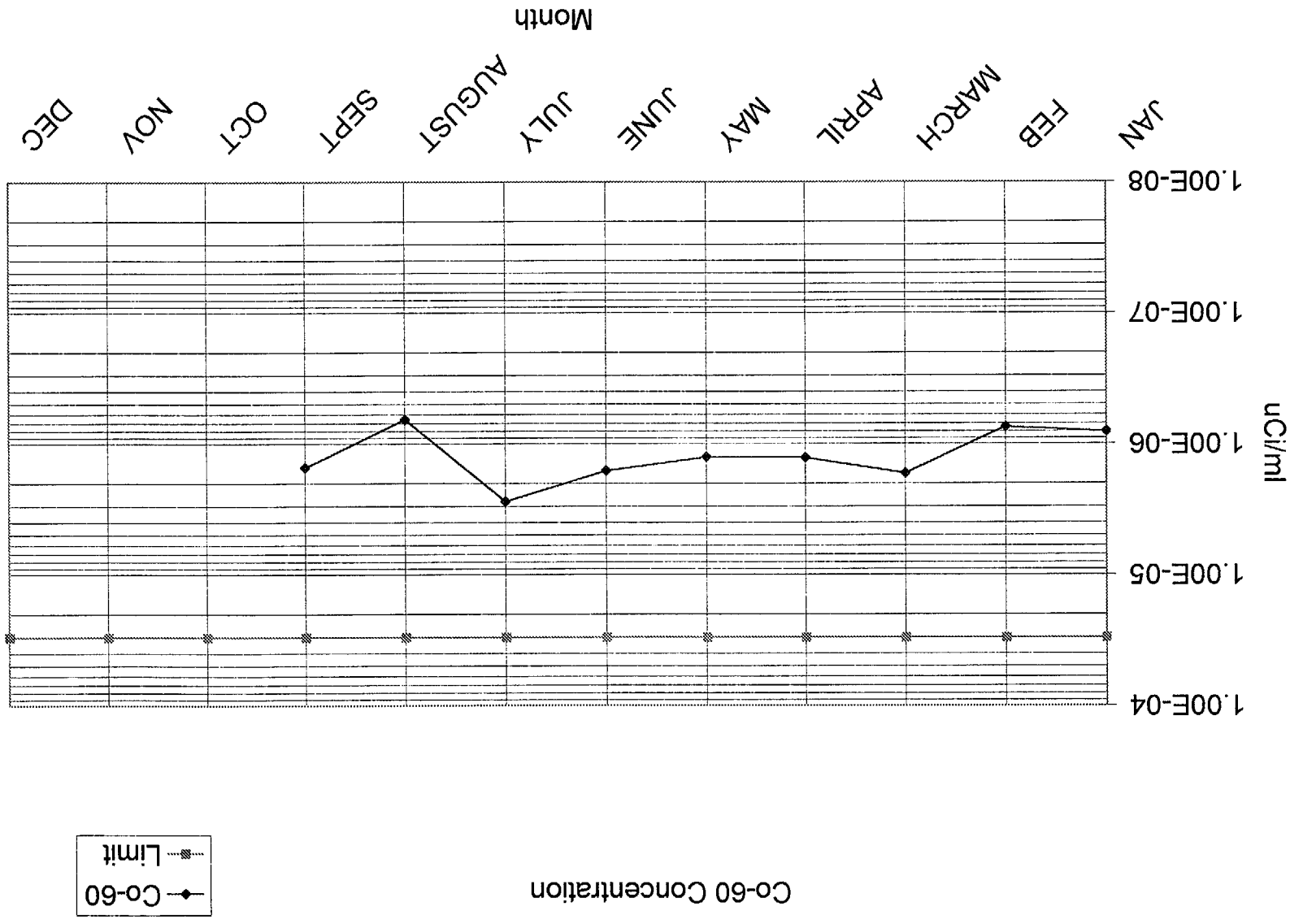
## 079 - Royersford

079 - ROYERSFORD RATIOS OF DISCHARGES TO LIMITS													
	LIMIT	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NOV	DEC
H-3	1.0E-02	0.00280	0.00280	0.00280	0.00083	0.00083	0.00083	0.00095	0.00095	0.00095			
C-14	3.0E-04	0.00677	0.00677	0.00677	0.00810	0.00810	0.00810	0.01200	0.01200	0.01200			
K-40	4.0E-05				0.00467		0.00513						
Cr-51	5.0E-03				0.00009								
Mn-54	3.0E-04	0.00078	0.00079	0.00205	0.00230	0.00497	0.00201	0.00330	0.00011	0.00129			
Fe-55	1.0E-03	0.00689	0.00689	0.00689	0.01450	0.01450	0.01450	0.01010	0.01010	0.01010			
Fe-59	1.0E-04					0.00120							
Co-57	6.0E-04												
Co-58	2.0E-04	0.00203	0.00180	0.00257	0.00163	0.00312	0.00408	0.00165	0.00040	0.00072			
Co-60	3.0E-05	0.02701	0.02476	0.05603	0.04273	0.04240	0.05380	0.09210	0.02177	0.05100			
Ni-63	1.0E-03	0.00015	0.00015	0.00015	0.00089	0.00089	0.00089	0.00124	0.00124	0.00124			
Zn-65	5.0E-05	0.00154	0.00154	0.00824	0.00886	0.00225	0.00425			0.00275			
Sr-89	8.0E-05												
Sr-90	5.0E-06	0.00066	0.00066	0.00066	0.00059	0.00059	0.00059	0.00434	0.00434	0.00434			
Zr-95	2.0E-04							0.00046					
Nb-95	3.0E-04	0.00010			0.00022	0.00013	0.00035						
Tc-99	6.0E-04	0.00048	0.00048	0.00048	0.00016	0.00016	0.00016	0.00009	0.00009	0.00009			
Ag-110m	6.0E-05			0.00118			0.00128						
Sb-125	3.0E-04												
I-129	2.0E-06	0.00865	0.00865	0.00865	0.00525	0.00525	0.00525	0.00252	0.00252	0.00252			
Cs-134	9.0E-06	0.01292	0.01120	0.01899	0.00508			0.01066	0.00473	0.00620			
Cs-137	1.0E-05	0.05299	0.05590	0.05806	0.02785	0.03784	0.05877	0.07283	0.04818	0.05292			
Eu-152	1.0E-04												
Eu-154	7.0E-05												
Ra-226	6.0E-07												
Th-228	2.0E-06												
Th-234	5.0E-05			0.01955				0.01955	0.01463				
U-234	3.0E-06												
U-235	3.0E-06		0.01167										
U-238	3.0E-06												
Pu-238	2.0E-07												
Pu-239	2.0E-07												
Np-237	2.0E-07												
Am-241	2.0E-07												
Cm-244	3.0E-07												
TOTAL	1.00	0.12379	0.13406	0.19308	0.12374	0.12222	0.16000	0.23178	0.12106	0.14612	0.00000	0.00000	0.00000

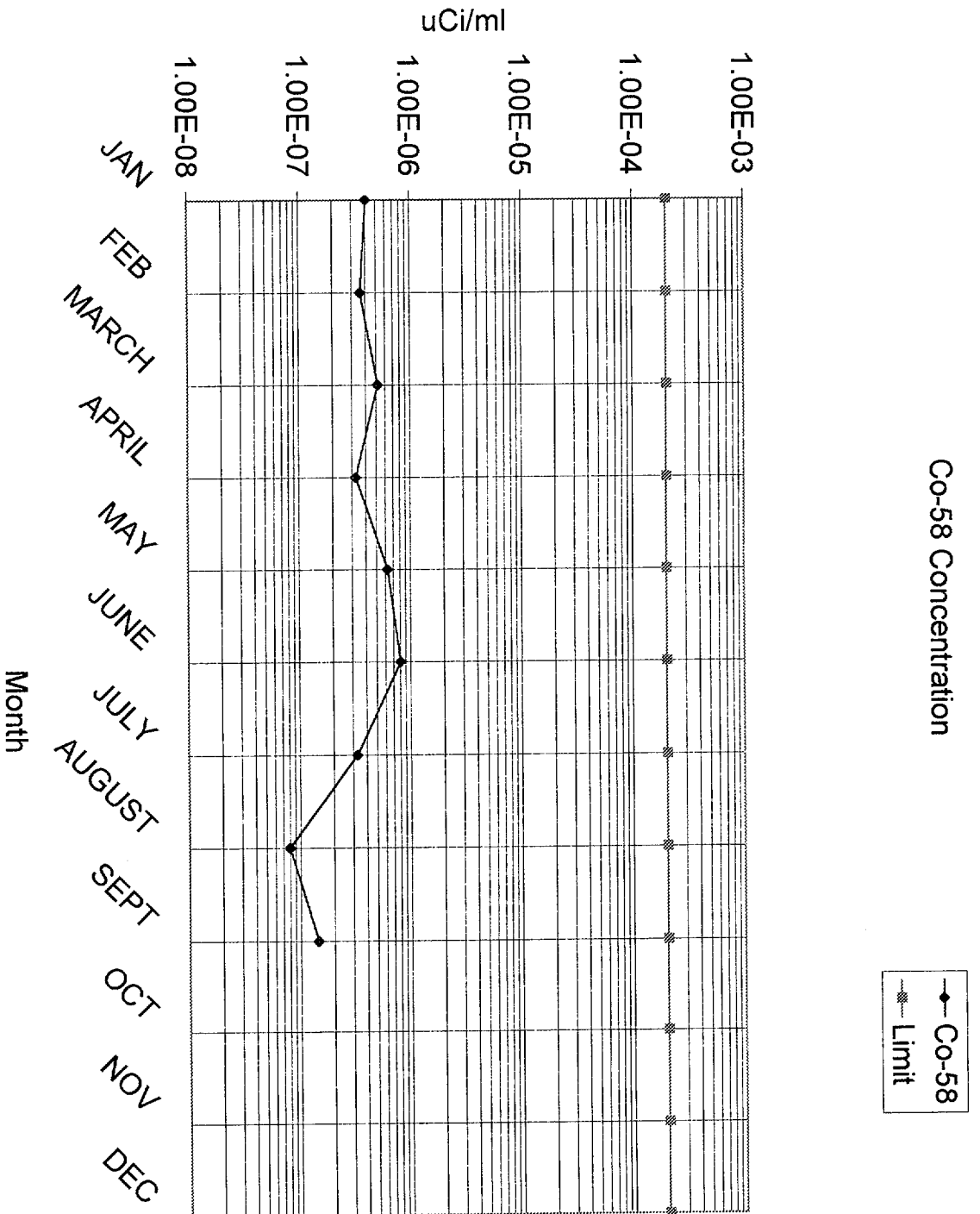
# Cs-137 Concentration

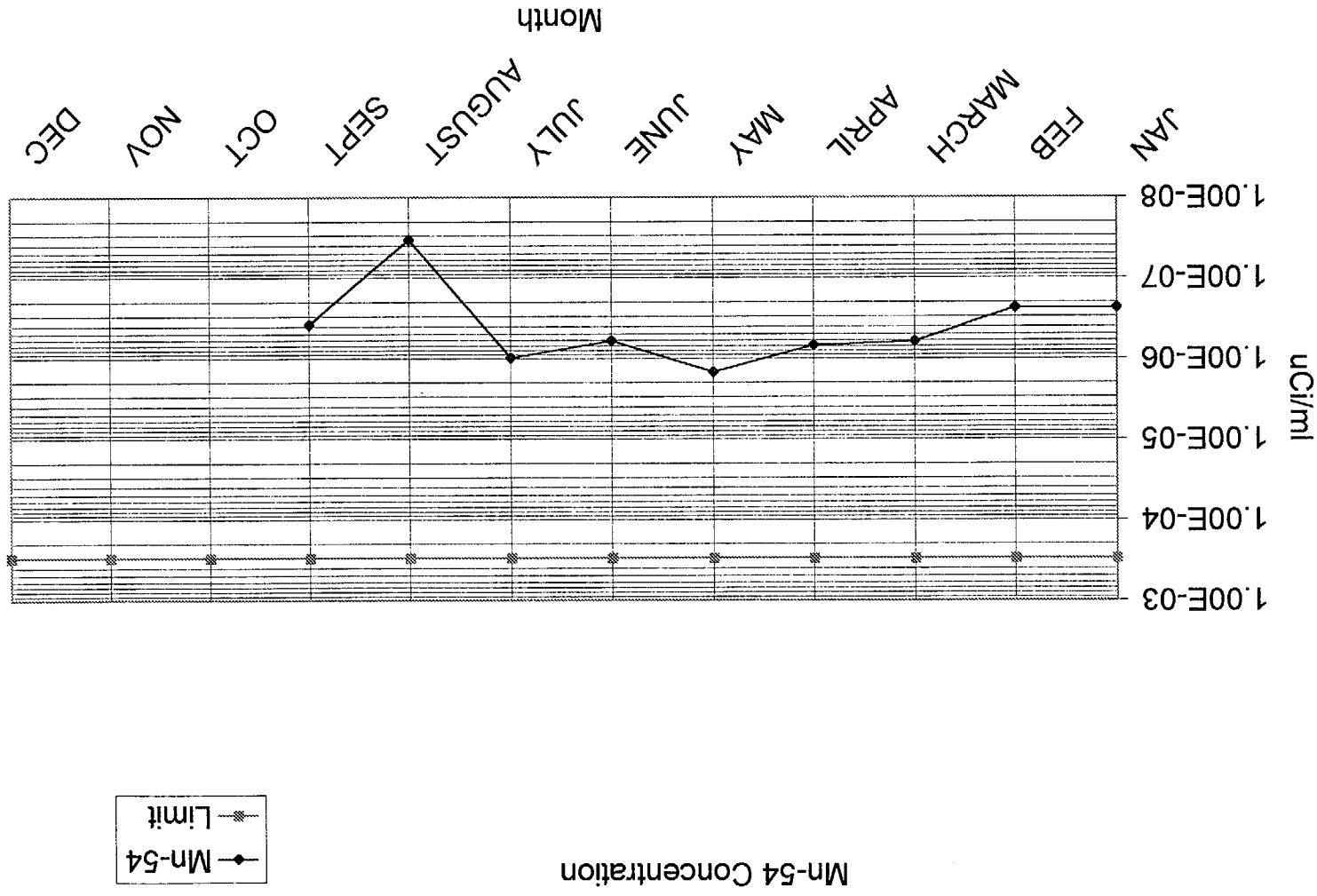






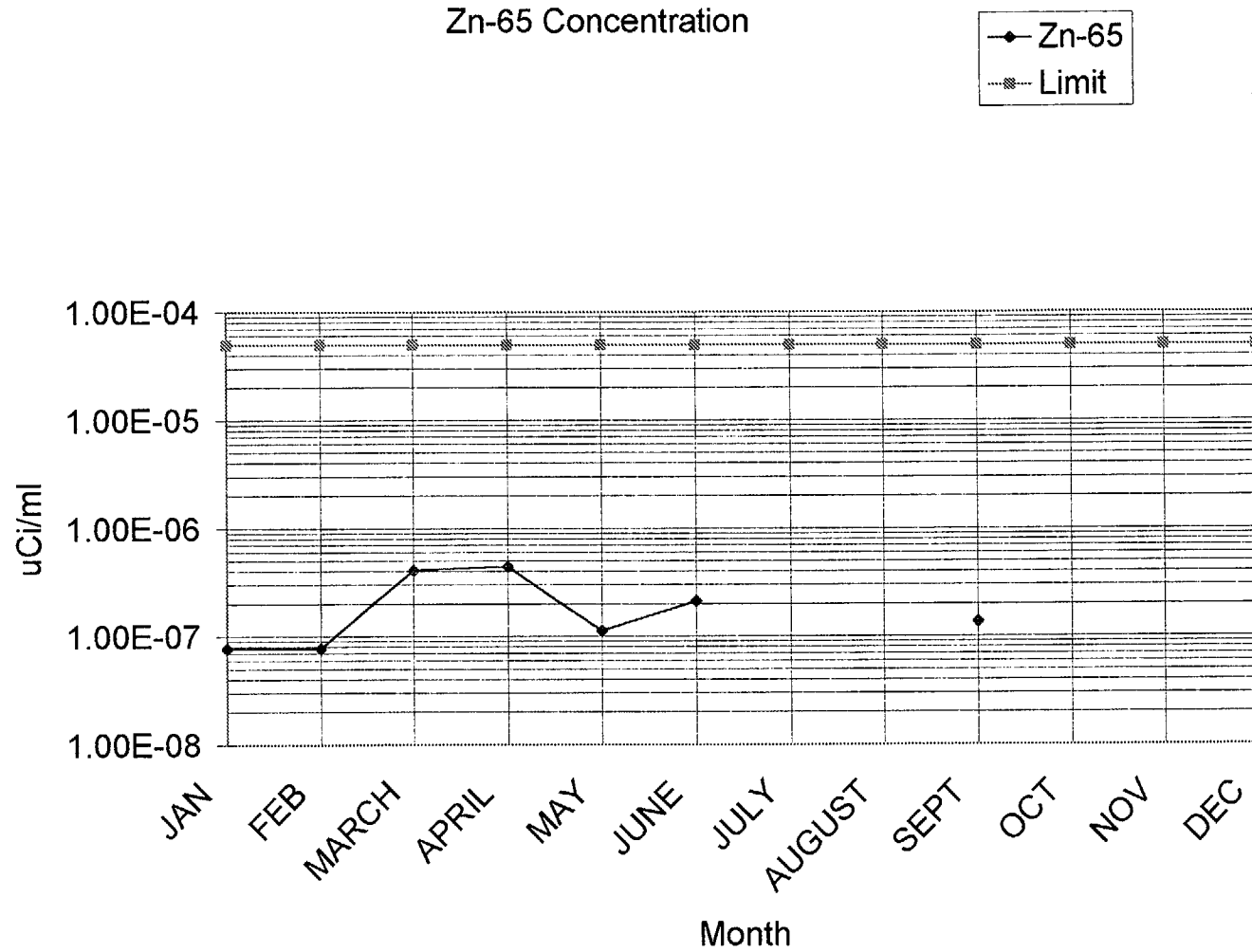
# Co-58 Concentration







## Zn-65 Concentration



BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

(FOR LFMS USE)  
INFORMATION FROM LTS

Program Code: 03218  
Status Code: 0  
Fee Category: 6A  
Exp. Date: 20050831  
Fee Comments: CALIBRATION IS FOR THE  
Decom Fin Assur Req'd: Y

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: UNITECH SERVICES GROUP, INC.  
Received Date: 20001205  
Docket No: 3020934  
Control No.: 128922  
License No.: 37-23341-01  
Action Type: Notifications

2. FEE ATTACHED

Amount: /  
Check No.: /

3. COMMENTS

Signed M. A. Perkins  
Date 12/05/2000

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /\_\_\_/)

1. Fee Category and Amount: \_\_\_\_\_

2. Correct Fee Paid. Application may be processed for:

Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_  
\_\_\_\_\_

Signed \_\_\_\_\_  
Date \_\_\_\_\_

This is to acknowledge the receipt of your letter/application dated

11/30/2000, and to inform you that the initial processing which includes an administrative review has been performed.

☒ *NOTIFICATION 37-2334-01* There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 1 2 8 9 2 2.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.

Sincerely,  
Licensing Assistance Team Leader