

A SUBSIDIARY OF UNIFIRST CORPORATION

RECEIVED
REGION 1

2000 SEP -6 PM 4:10

Q-5

030-20934

August 29, 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- 2nd Quarter 2000

Dear Mr. Kinneman:

In accordance with condition No. 16 of the referenced license, enclosed is the quarterly report for the second 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 6 2 8

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						
H-3	2.80E-05	2.80E-05	2.80E-05	8.29E-06	8.29E-06	8.29E-06						
mCi H-3	25.4352	25.9651	125.5863	33.417197	17.885261	14.276831						
C-14	2.03E-06	2.03E-06	2.03E-06	2.43E-06	2.43E-06	2.43E-06						
mCi C-14	1.844052	1.88246975	9.1050068	9.7953908	5.2426035	4.1848853						
K-40	NF	NF	NF	1.87E-07	NF	2.05E-07						
Cr-51	NF	NF	NF	4.28E-07	NF	NF						
Mn-54	2.34E-07	2.37E-07	6.14E-07	6.89E-07	1.49E-06	6.03E-07						
Fe-55	6.89E-06	6.89E-06	6.89E-06	1.45E-05	1.45E-05	1.45E-05						
Fe-59	NF	NF	NF	NF	1.20E-07	NF						
Co-57	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						
Co-60	8.10E-07	7.43E-07	1.68E-06	1.28E-06	1.27E-06	1.61E-06						
Ni-63	1.52E-07	1.52E-07	1.52E-07	8.87E-07	8.87E-07	8.87E-07						
Zn-65	7.71E-08	7.71E-08	4.12E-07	4.43E-07	1.12E-07	2.13E-07						
Sr-89	*	*	*	*	*	*						
Sr-90	3.32E-09	3.32E-09	3.32E-09	2.94E-09	2.94E-09	2.94E-09						
Zr-95	NF	NF	NF	NF	NF	NF						
Nb-95	3.09E-08	NF	NF	6.65E-08	3.84E-08	1.06E-07						
Tc-99	2.90E-07	2.90E-07	2.90E-07	9.71E-08	9.71E-08	9.71E-08						
Ag-110m	NF	NF	7.06E-08	NF	NF	7.70E-08						
Sb-125	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						
Cs-134	1.16E-07	1.01E-07	1.71E-07	4.57E-08	NF	NF						
Cs-137	5.30E-07	5.59E-07	5.81E-07	2.79E-07	3.78E-07	5.88E-07						
Eu-152	ND	ND	ND	ND	ND	ND						
Eu-154	ND	ND	ND	ND	ND	ND						
Ra-226	ND	ND	ND	ND	ND	ND						
Th-228	ND	ND	ND	ND	ND	ND						
Th-234	ND	ND	9.78E-07	ND	ND	ND						
U-234	ND	ND	ND	ND	ND	ND						
U-235	ND	3.50E-08	ND	ND	ND	ND						
U-238	ND	ND	ND	ND	ND	ND						
Pu-238	ND	ND	ND	ND	ND	ND						
Pu-239	ND	ND	ND	ND	ND	ND						
Np-237	ND	ND	ND	ND	ND	ND						
Am-241	ND	ND	ND	ND	ND	ND						
Cm-244	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ACTIVITY	8.6821602	8.77575868	55.499008	77.568329	42.142895	33.959276	0	0	0	0	0	0

ANNUAL TOTALS
3760000 GALLONS

242.56589 mCi H-3

32.054408 mCi C-14

226.62743 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.

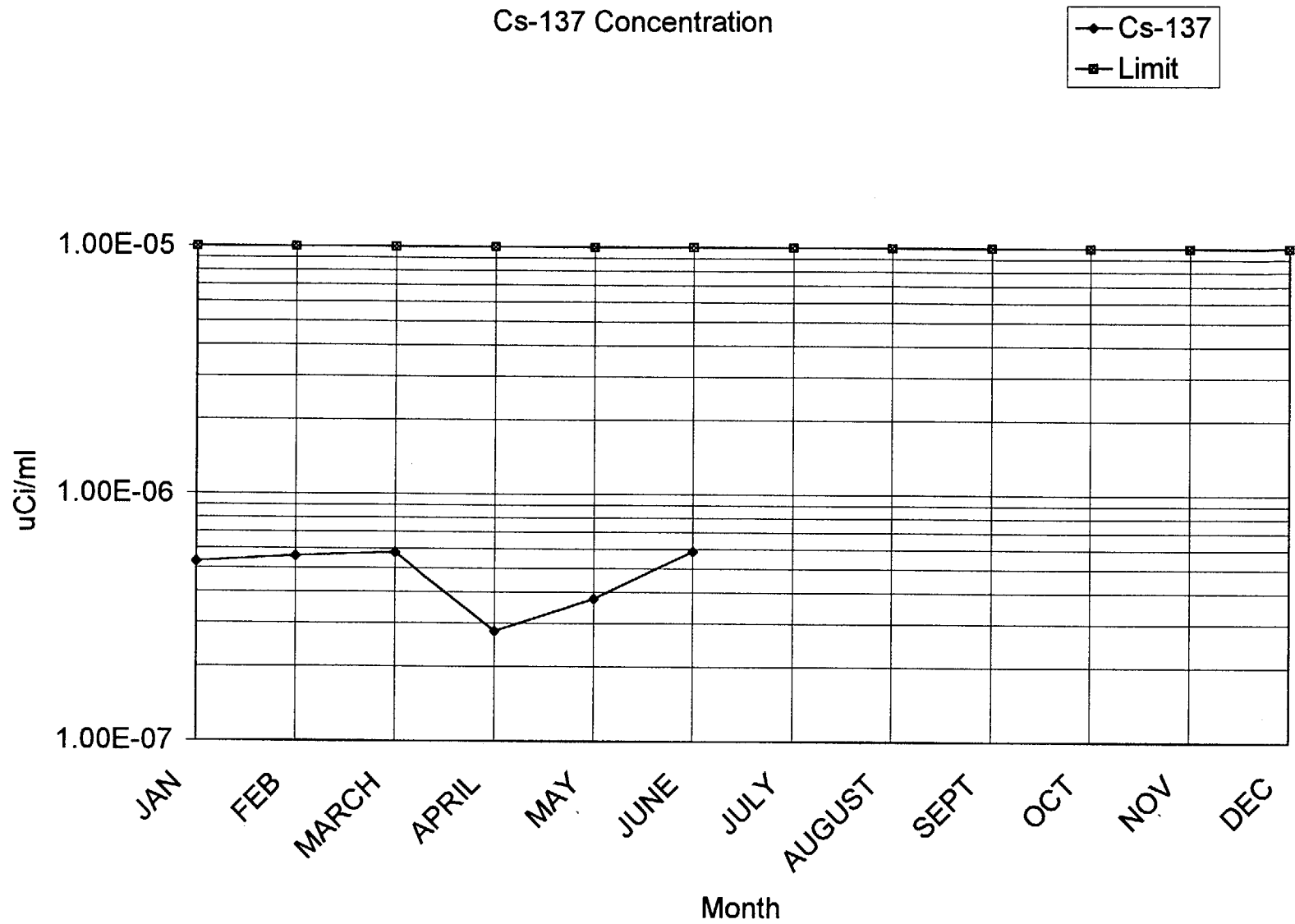
*Sr-89/90 analyzed and reported as total Sr unless >50 pCi/L. Conservatively assigned to Sr-90

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

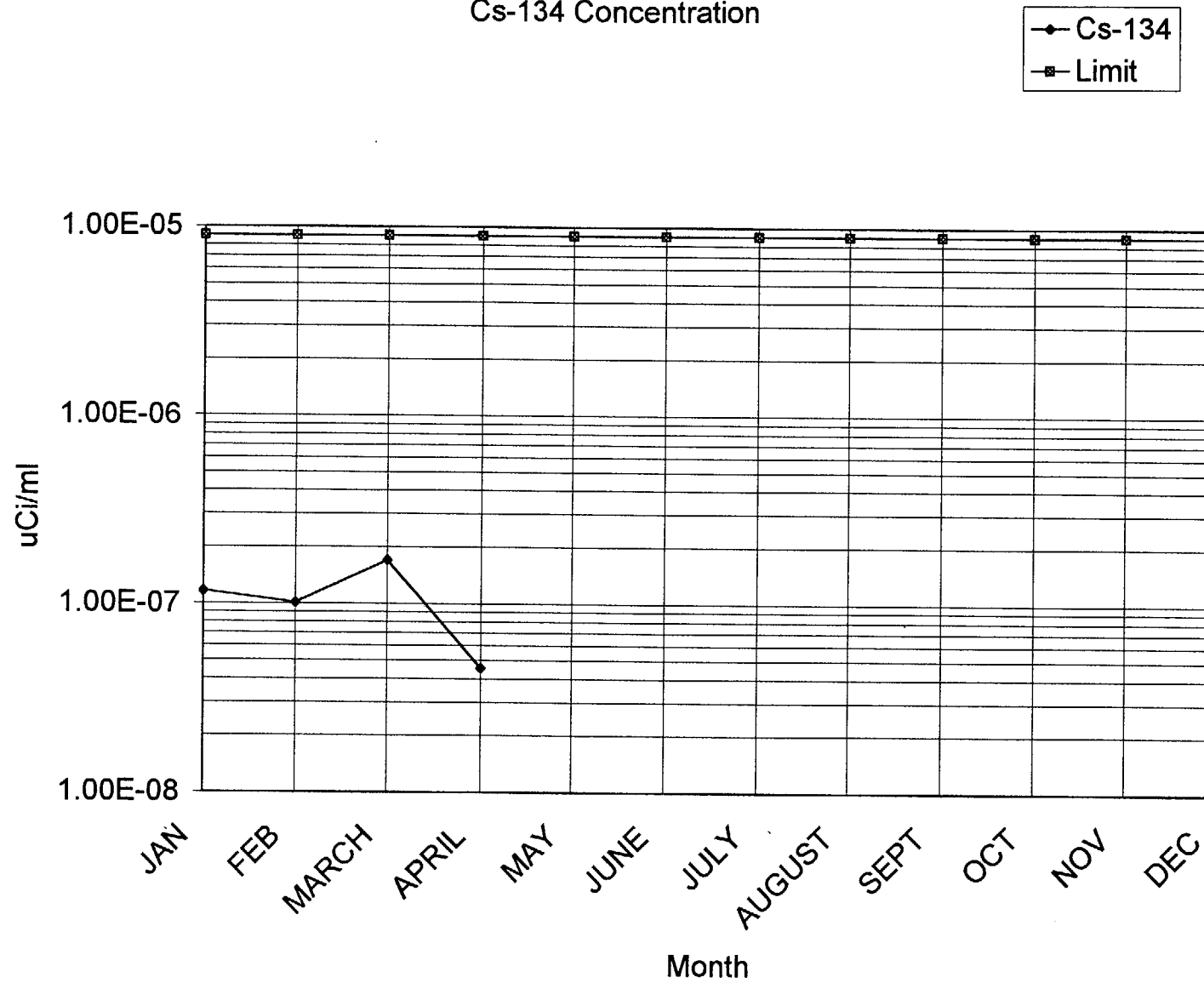
ND - No Data

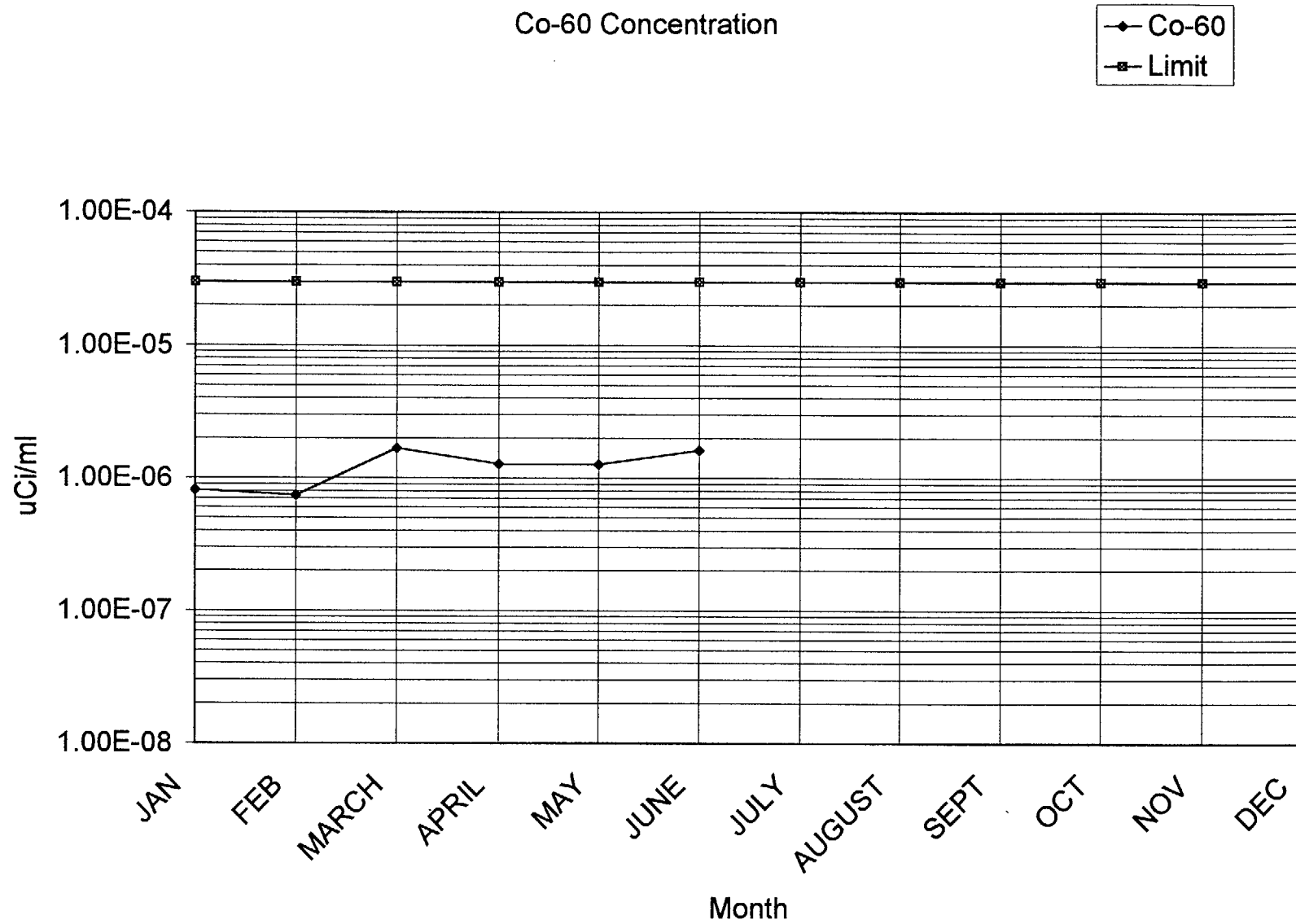
079 - ROYERSFORD RATIOS OF DISCHARGES TO LIMITS													
	LIMIT	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NOV	DEC
H-3	1.0E-02	0.00280	0.00280	0.00280	0.00083	0.00083	0.00083						
C-14	3.0E-04	0.00677	0.00677	0.00677	0.00810	0.00810	0.00810						
K-40	4.0E-05				0.00467		0.00513						
Cr-51	5.0E-03				0.00009								
Mn-54	3.0E-04	0.00078	0.00079	0.00205	0.00230	0.00497	0.00201						
Fe-55	1.0E-03	0.00689	0.00689	0.00689	0.01450	0.01450	0.01450						
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						
Co-60	3.0E-05	0.02701	0.02476	0.05603	0.04273	0.04240	0.05380						
Ni-63	1.0E-03	0.00015	0.00015	0.00015	0.00089	0.00089	0.00089						
Zn-65	5.0E-05	0.00154	0.00154	0.00824	0.00886	0.00225	0.00425						
Sr-89	8.0E-05												
Sr-90	5.0E-06	0.00066	0.00066	0.00066	0.00059	0.00059	0.00059						
Zr-95	2.0E-04												
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						
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						
Cs-134	9.0E-06	0.01292	0.01120	0.01899	0.00508								
Cs-137	1.0E-05	0.05299	0.05590	0.05806	0.02785	0.03784	0.05877						
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									
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	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Cs-137 Concentration

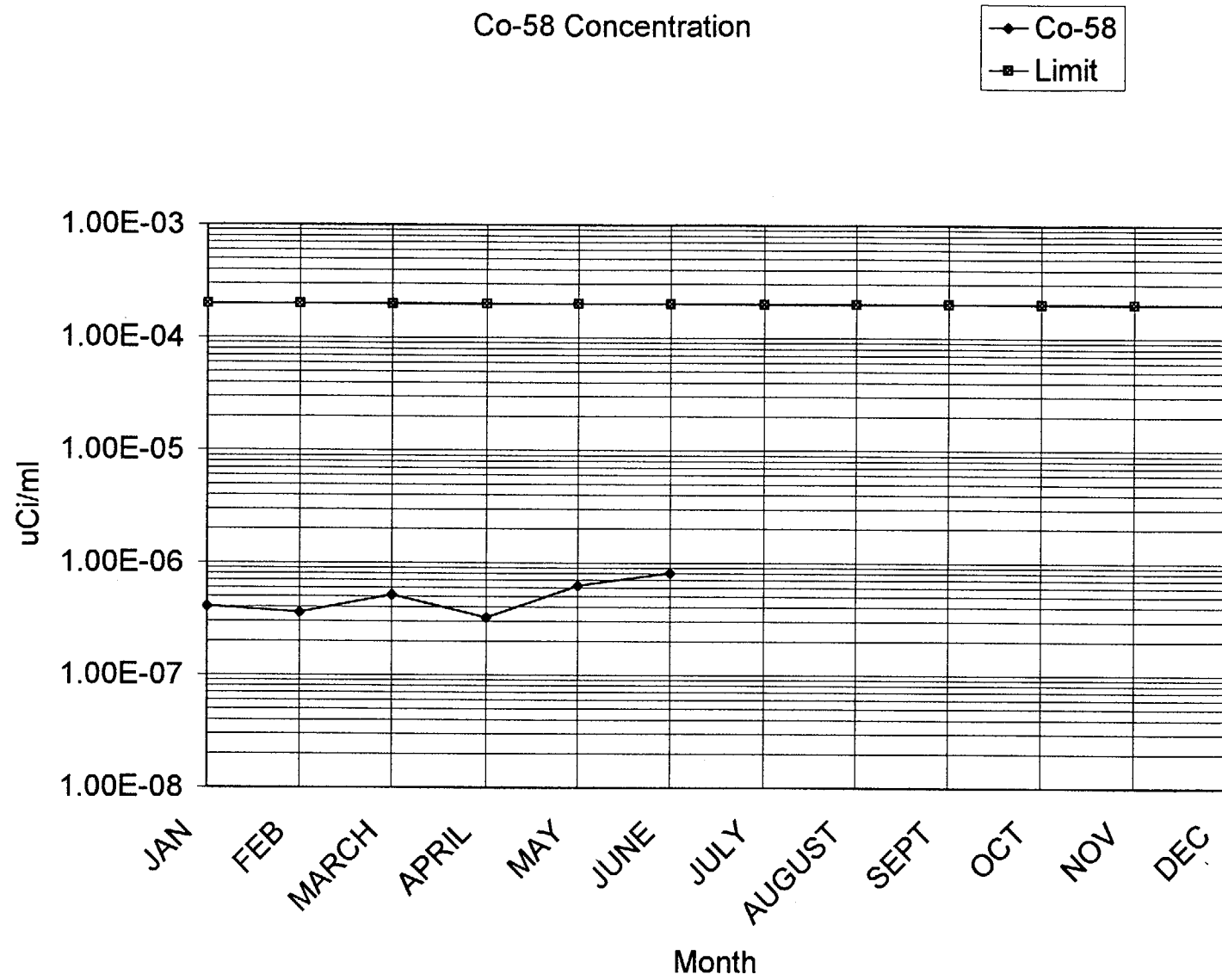


Cs-134 Concentration

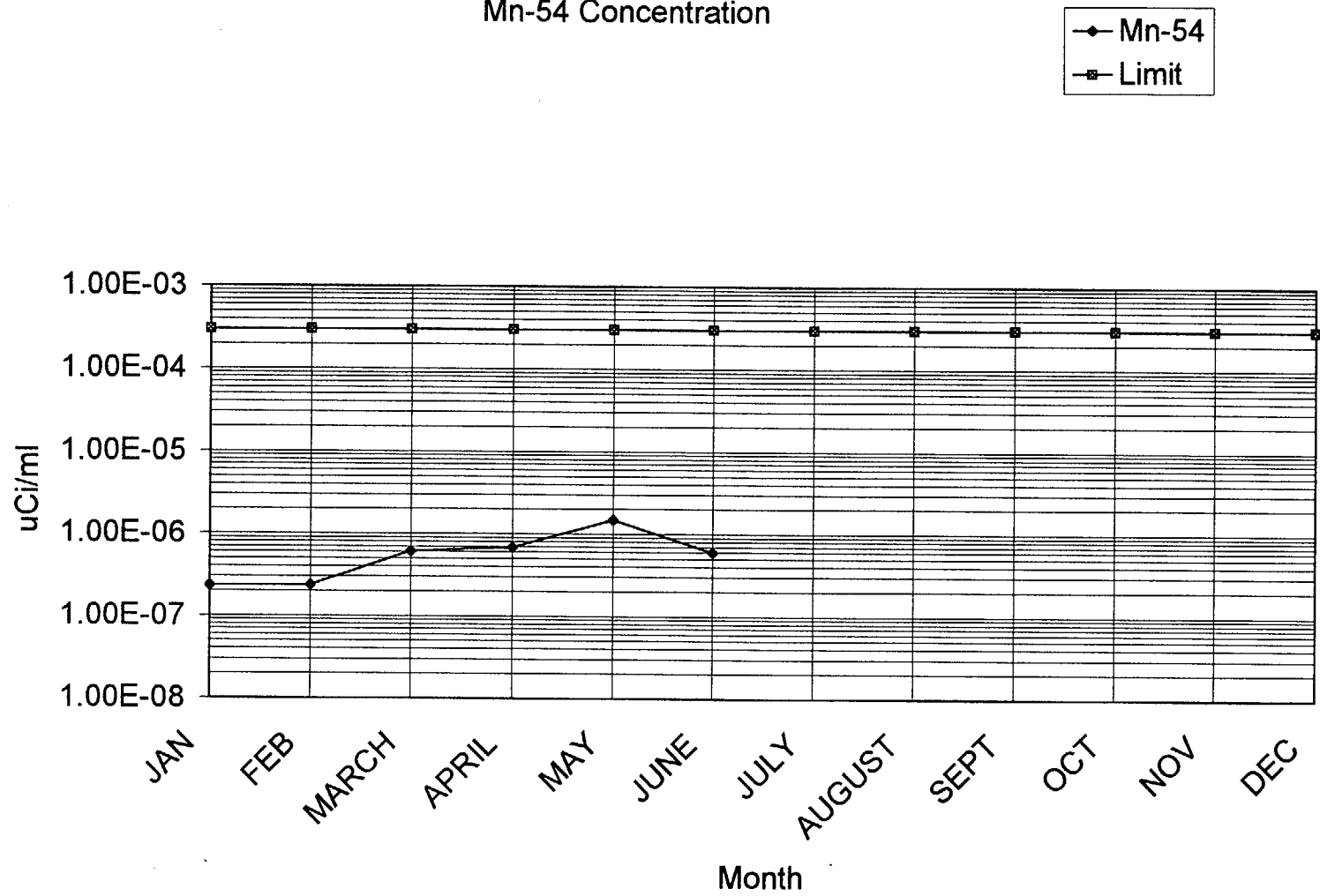




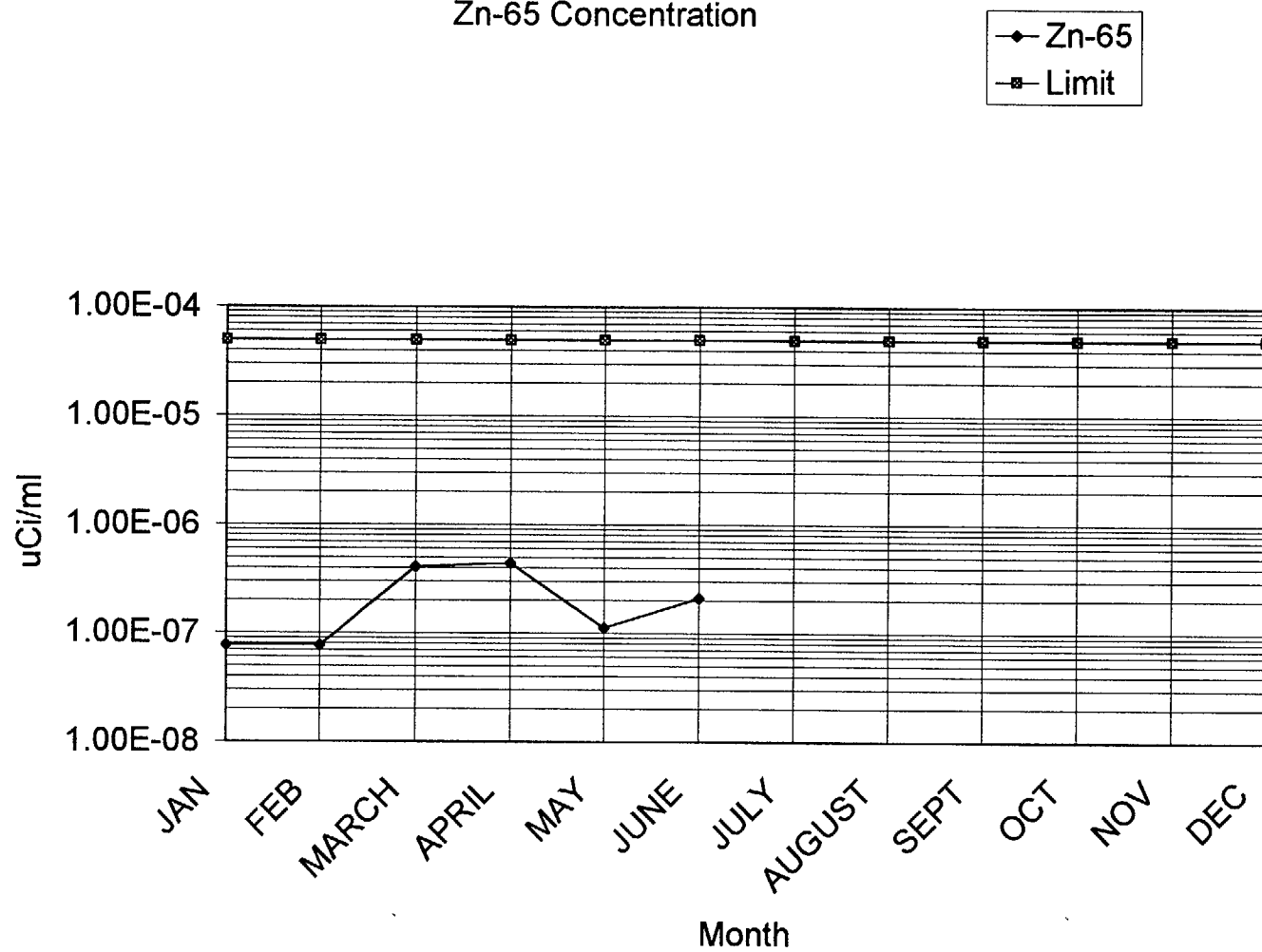
Co-58 Concentration



Mn-54 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 THEM
: Decom Fin Assur Req'd: Y
:

LICENSE FEE TRANSMITTAL

A. REGION *I*

1. APPLICATION ATTACHED

Applicant/Licensee: UNITECH SERVICES GROUP, INC.
Received Date: 20000906
Docket No: 3020934
Control No.: 128628
License No.: 37-23341-01
Action Type: Notifications

2. FEE ATTACHED

Amount: -----
Check No.: -----

3. COMMENTS

Signed *M. A. Perkins*
Date *9/7/2000*

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

8/29/2000, and to inform you that the initial processing which includes an administrative review has been performed.

☒ **NOTIFICATION 37-23341-01**
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 6 2 8**
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.