

A SUBSIDIARY OF UNIFIRST CORPORATION

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030-20934

March 21, 2001

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- 4th Quarter 2000

Dear Mr. Kinneman:

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

If you have any questions or comments, please contact me. If I am unavailable you may also contact Michael Fuller, Manager, Health Physics & Engineering at (413) 543-6911, ext. 25.

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 9 4 8 1
NMSS/RGN MATERIALS-002 EXU

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	1265000	795000	365000
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	1.86E-05	1.86E-05	1.86E-05
mCi H-3	25.4352	25.9651	125.5863	33.417197	17.885261	14.276831	12.532135	17.186928	30.972277	89.057265	55.968795	25.696365
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	8.77E-06	8.77E-06	8.77E-06
mCi C-14	1.844052	1.8824698	9.1050068	9.7953908	5.2426035	4.1848853	4.7691	6.54048	11.78649	41.990979	26.389588	12.115974
K-40	NF	NF	NF	1.87E-07	NF	2.05E-07	NF	NF	NF	NF	NF	NF
Cr-51	NF	NF	NF	4.28E-07	NF	NF	NF	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	7.29E-07	5.86E-07	5.32E-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	1.10E-05	1.10E-05	1.10E-05
Fe-59	NF	NF	NF	NF	1.20E-07	NF	NF	NF	NF	NF	NF	NF
Co-57	NF	NF	NF	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	1.37E-06	3.41E-07	4.39E-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	2.56E-06	1.81E-06	1.78E-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	2.89E-06	2.89E-06	2.89E-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	1.59E-07	NF	9.23E-08
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	9.97E-09	9.97E-09	9.97E-09
Zr-95	NF	NF	NF	NF	NF	NF	9.29E-08	NF	NF	NF	NF	NF
Nb-95	3.09E-08	NF	NF	6.65E-08	3.84E-08	1.06E-07	NF	NF	NF	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	5.95E-08	5.95E-08	5.95E-08
Ag-110m	NF	NF	7.06E-08	NF	NF	7.70E-08	NF	NF	NF	NF	NF	NF
Sb-125	NF	NF	NF	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	<MDA	<MDA	<MDA
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	1.38E-07	4.31E-08	NF
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	5.62E-07	4.12E-07	8.81E-07
Eu-152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Eu-154	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ra-226	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Th-228	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Th-230	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09	7.18E-09
Th-232	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Th-234	<MDA	<MDA	9.78E-07	<MDA	<MDA	<MDA	9.77E-07	7.32E-07	<MDA	<MDA	<MDA	9.88E-07
U-234	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10	8.83E-10
U-235	<MDA	3.50E-08	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
U-238	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10	7.04E-10
Pu-238	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
Pu-239	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09
Np-237	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
Am-241	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09	1.21E-09
Cm-244	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA	<MDA
CONC.	9.57E-06	9.48E-06	1.24E-05	1.93E-05	1.95E-05	1.97E-05	1.74E-05	1.35E-05	1.42E-05	1.95E-05	1.72E-05	1.87E-05
ACTIVITY	8.6953293	8.7892021	55.56403	77.626767	42.174171	33.984242	23.068358	24.453741	46.559048	93.286369	51.649229	25.811981

ANNUAL TOTALS
7880000 GALLONS

473.97965 mCi H-3

135.64702 mCi C-14

491.66247 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.

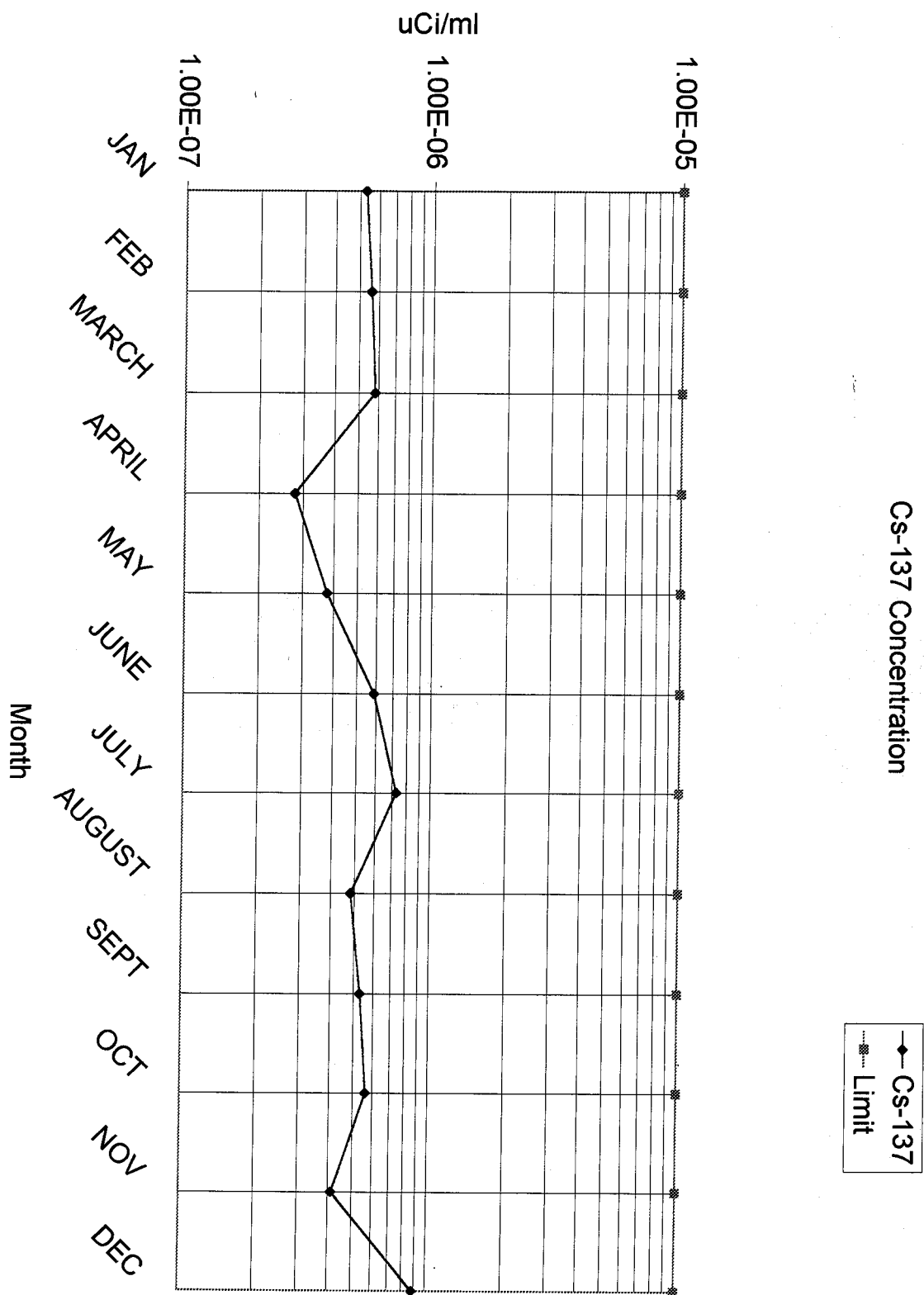
*Sr-89/90 analyzed and reported as total Sr unless >50 pCi/L. Conservatively assigned to Sr-90

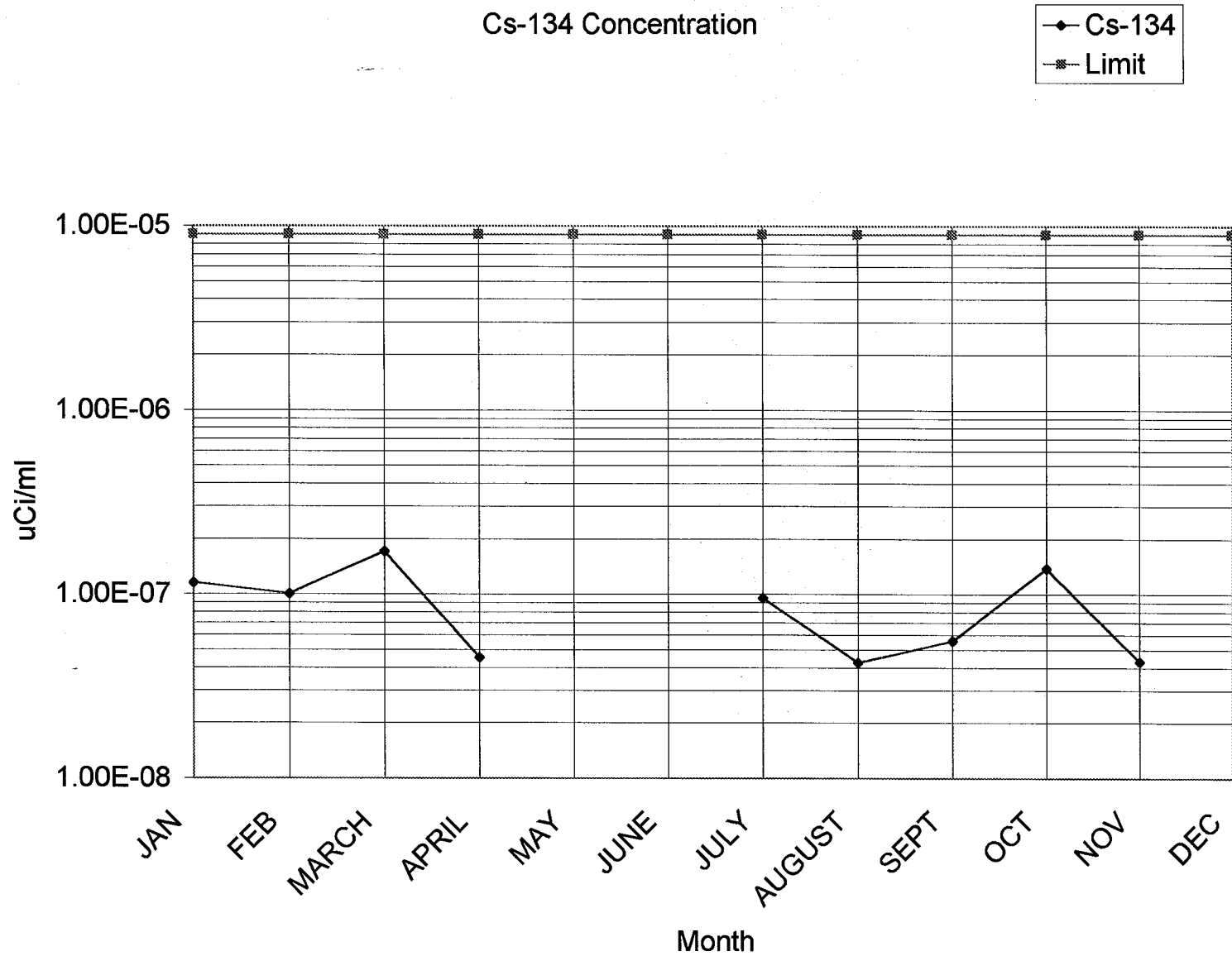
AORN - All other radionuclides (except for H-3 and C-14)

ND - No Data

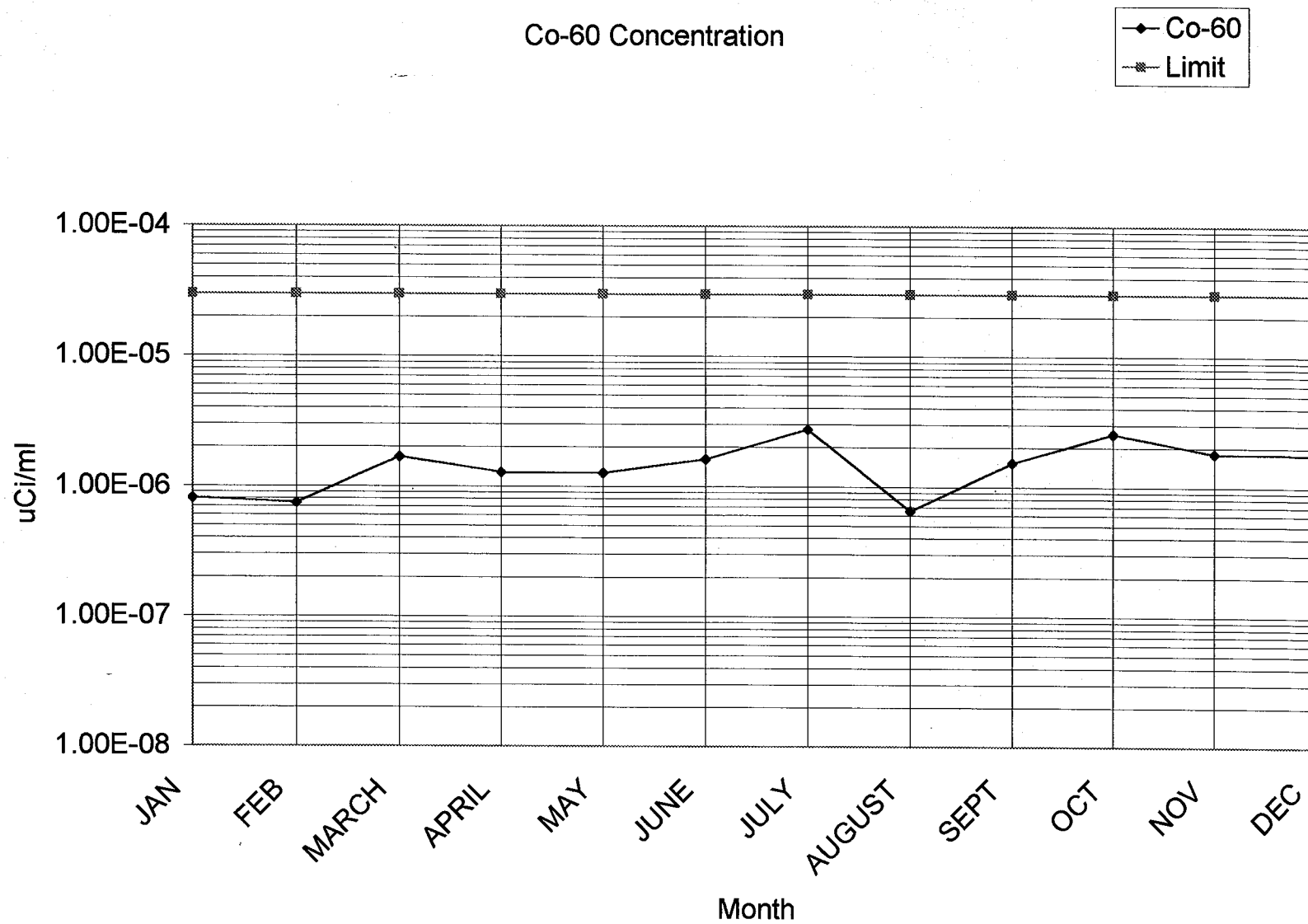
079 - ROYERSFORD RATIOS OF DISCHARGES TO LIMITS													
	LIMIT	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NOV	DEC
H-3	1.0E-02	0.00280	0.00280	0.00280	0.00083	0.00083	0.00083	0.00095	0.00095	0.00095	0.00186	0.00186	0.00186
C-14	3.0E-04	0.00677	0.00677	0.00677	0.00810	0.00810	0.00810	0.01200	0.01200	0.01200	0.02923	0.02923	0.02923
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	0.00243	0.00195	0.00177
Fe-55	1.0E-03	0.00689	0.00689	0.00689	0.01450	0.01450	0.01450	0.01010	0.01010	0.01010	0.01100	0.01100	0.01100
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	0.00683	0.00171	0.00219
Co-60	3.0E-05	0.02701	0.02476	0.05603	0.04273	0.04240	0.05380	0.09210	0.02177	0.05100	0.08523	0.06027	0.05927
Ni-63	1.0E-03	0.00015	0.00015	0.00015	0.00089	0.00089	0.00089	0.00124	0.00124	0.00124	0.00289	0.00289	0.00289
Zn-65	5.0E-05	0.00154	0.00154	0.00824	0.00886	0.00225	0.00425			0.00275	0.00317		0.00185
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	0.00199	0.00199	0.00199
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	0.00010	0.00010	0.00010
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	0.01537	0.00479	
Cs-137	1.0E-05	0.05299	0.05590	0.05806	0.02785	0.03784	0.05877	0.07283	0.04818	0.05292	0.05615	0.04121	0.08805
Eu-152	1.0E-04												
Eu-154	7.0E-05												
Ra-226	6.0E-07												
Th-228	2.0E-06												
Th-230	1.0E-06	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718	0.00718
Th-232	5.0E-05												
Th-234	5.0E-05			0.01955				0.01955	0.01463				0.01977
U-234	3.0E-06	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029
U-235	3.0E-06		0.01167										
U-238	3.0E-06	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023
Pu-238	2.0E-07												
Pu-239	2.0E-07	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	0.01400
Np-237	2.0E-07	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860	0.00860
Am-241	2.0E-07	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605	0.00605
Cm-244	3.0E-07												
TOTAL	1.00	0.16014	0.17042	0.22944	0.16010	0.15858	0.19636	0.26814	0.15742	0.18248	0.25261	0.19336	0.25633

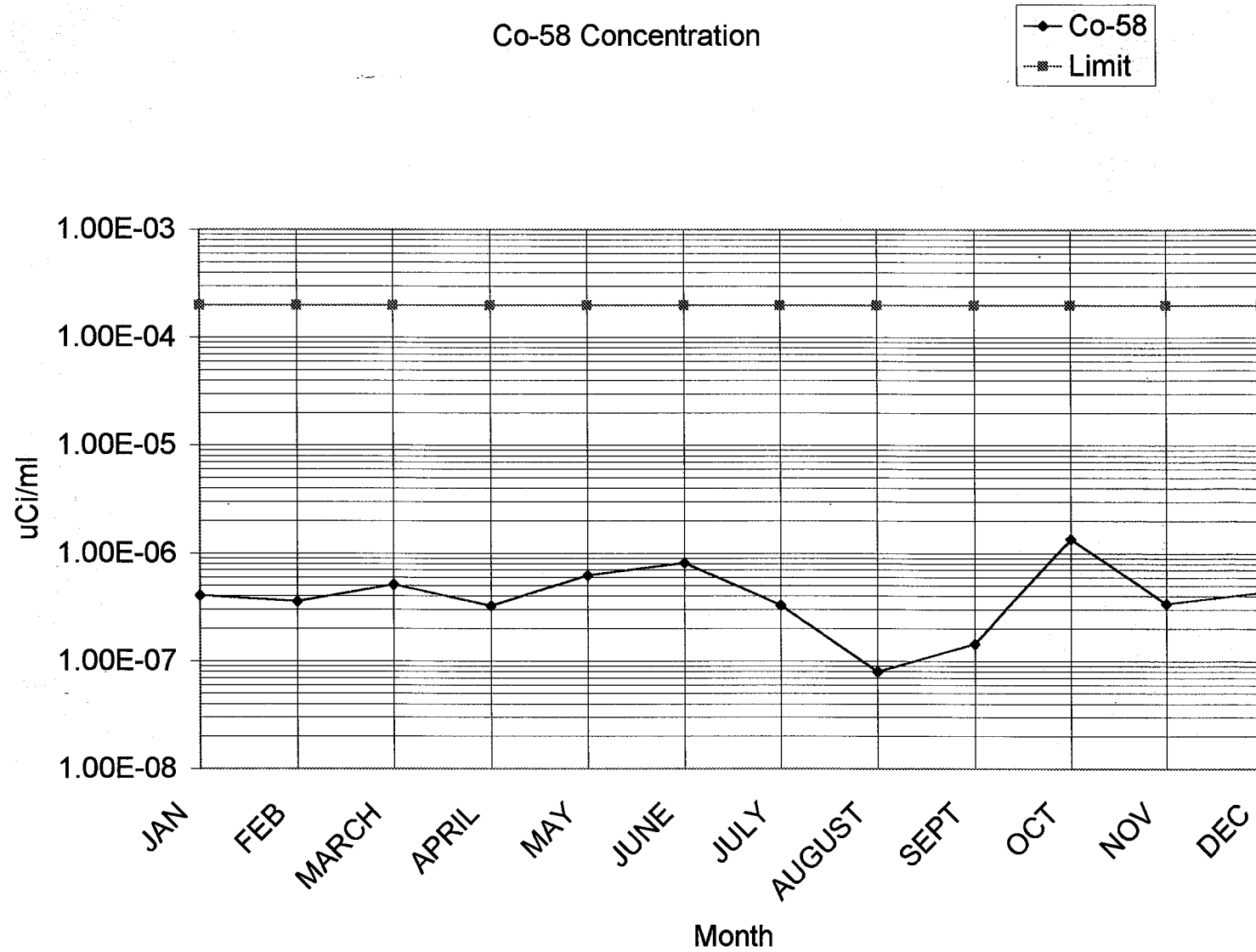
Cs-137 Concentration

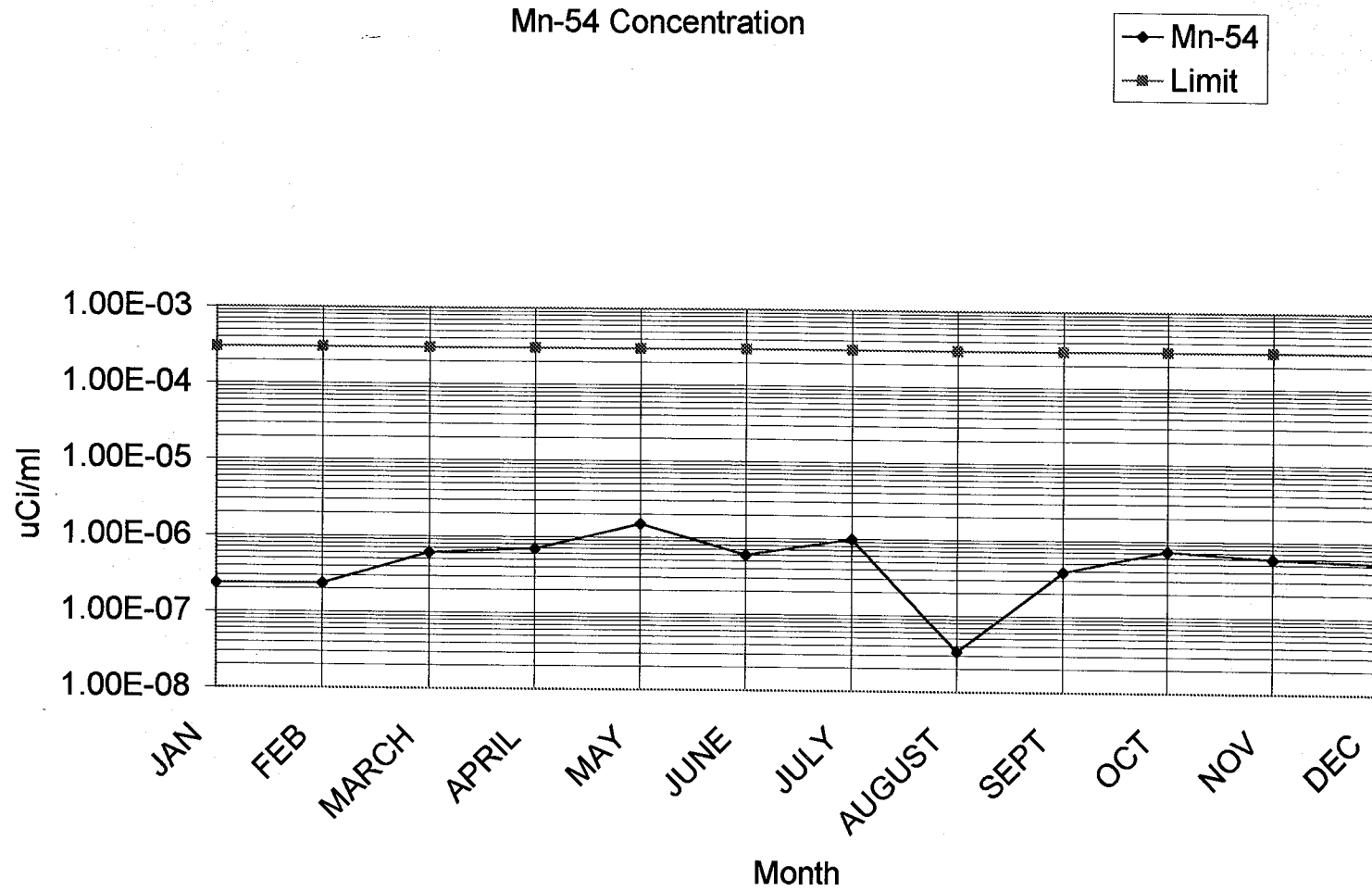


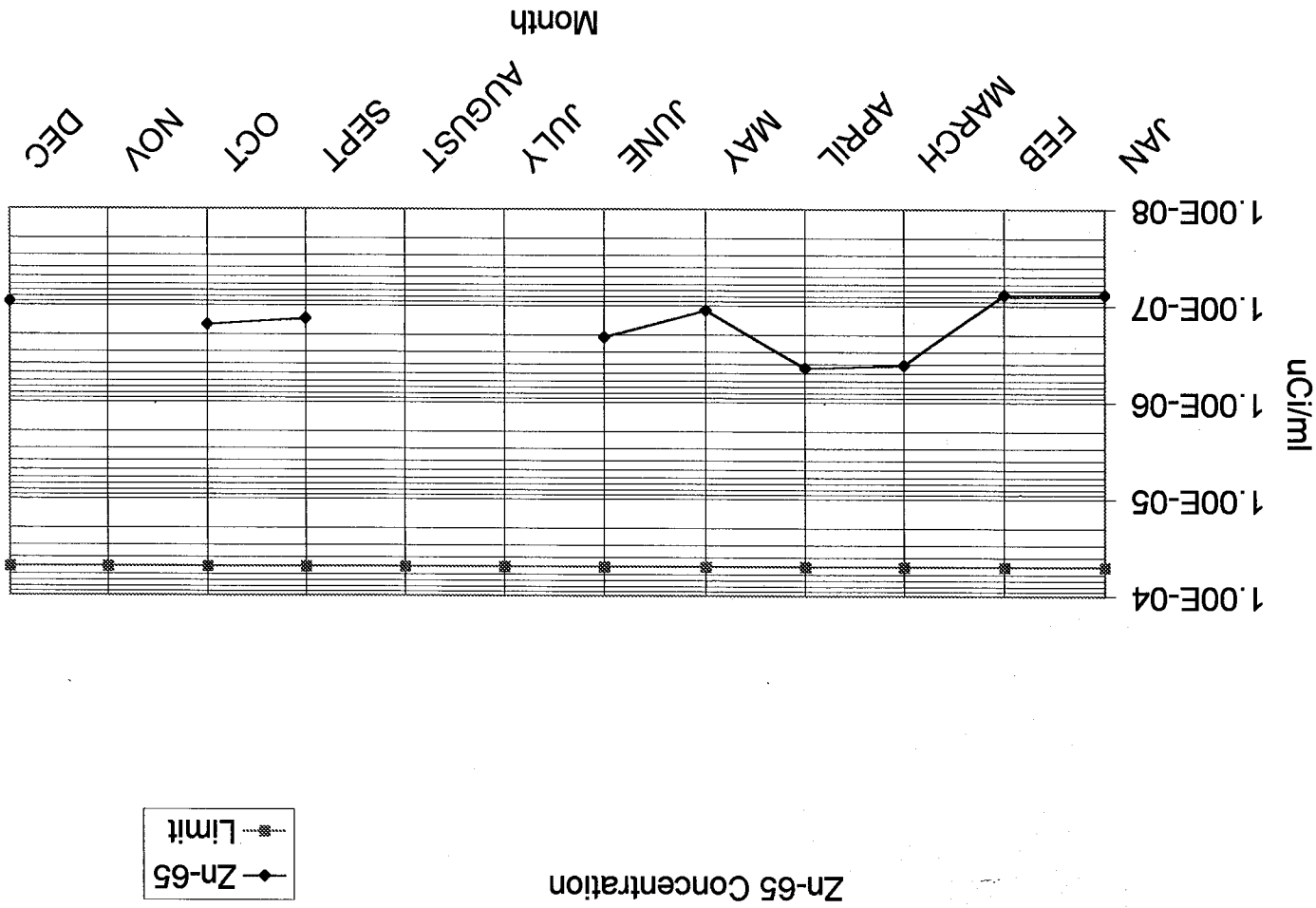


Co-60 Concentration









1 2 9 4 8 1

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

03/21/01, and to inform you that the initial processing which includes an administrative review has been performed.

☒ *Notification* 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 129481
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (R1)
(6-96)

Sincerely,
Licensing Assistance Team Leader

BETWEEN: : (FOR LFMS USE)
: INFORMATION FROM LTS
: -----
:
License Fee Management Branch, ARM : Program Code: 03218
and : Status Code: 0
Regional Licensing Sections : Fee Category: 6A
: Exp. Date: 20050831
: Fee Comments: CALIBRATION IS FOR THEM
: Decom Fin Assur Req'd: Y
:

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: UNITECH SERVICES GROUP, INC.
Received Date: 20010326
Docket No: 3020934
Control No.: 129481
License No.: 37-23341-01
Action Type: Notifications

2. FEE ATTACHED

Amount: _____
Check No.: /

3. COMMENTS

Signed R. J. Brown
Date 03/31/01

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 _____