

DEPARTMENT OF THE ARMY NORTH ATLANTIC REGIONAL MEDICAL COMMAND AND WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVENUE NW WASHINGTON DC 20307-5000

ATTENTION OF:

17 June 2008

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER (WRAMC)

1. This Decommissioning Funding Plan supersedes the plan provided as previous correspondence dated 16 January 2008.

2. References.

a. WRAMC Broad Scope Materials License No. 08-01738-02. This plan addresses all WRAMC facilities and the use of NRC regulated byproduct materials as described in the license.

b. NUREG-1757, September 2003, Consolidated NMSS Decommissioning Guidance, Volume 3. Cost estimation tables provided in this plan closely follow the format of the tables in Appendix A, Section 3, NUREG-1757(Vol.3).

c. NUREG/CR-6477, October 2002, Revised Analyses of Decommissioning Reference Non-Fuel-Cycle Facilities. This plan assumes a decommissioning crew as presented in Section 2.6 (Decommissioning of Reference Facilities) and makes use of reference data from Section 5 (Decommission of Facility Components) of NUREG/CR-6477.

d. Mike S. Styvaert, Health Physicist, United States Army Joint Munitions Command, Cost Estimating Tools, 2007. Mr. Styvaert provided the current labor costs used in this plan.

3. The total estimated costs for decommissioning all WRAMC NRC licensed facilities as described in Reference 2a above is \$13,556,466. Detailed tables of our cost estimate are provided in the Appendix. The tables follow the format provided in Reference 2b, however, they exclude specific waste disposal calculations. Our estimate for waste disposal is based on conservative estimates of our amounts of building materials which may need to be disposed of as radioactive waste.

4. Adjusting cost estimates and associated funding levels will be by reanalysis upon occasion of broad scope license renewal.

MCHL-HP SUBJECT: WRAMC Decommissioning Funding Plan

17 June 2008

5. Point of contact for further information on this decommissioning funding plan is the undersigned, (202) 356-0060, mark.melanson@us.army.mil.

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MARK A. MELANSON, Ph.D. COL, MS Chief, Health Physics WRAMC MCHL-HP SUBJECT: WRAMC Decommissioning Funding Plan 17 June 2008

APPENDIX

for the

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER (WRAMC)

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 - Table A.8. Total Decommissioning Costs

	Fume Hood	Workbenches	Cabinets	Equipment	Sink/drains	Ceilings	Walls	Floor	Total	<u>x 9</u> 0 labs
Times (days)	1.5	1.7	0.4	0.6	0.3	0.03	0.03	0.04	4.6	414
Manpower (person-days)	5.3	6.1	1.6	2.1	1	0.13	0.13	0.15	16.51	1485.9
Costs for supercompaction (per \$1,000)	8	8.8	2.4	6	2.4	0.26	0.22	0.2	28.28	2545.2
WRAMC specific o	lata after	taking all th	ne assu	mptions	into acco	unt.				
	Fume Hood	Workbenches	Cabinets	Equipment	Sink/drains	Ceilings	Walls	Floor	Total	x 90 labs
Times (days)	3	6.8	2	0.6	0.3	3	2.7	4	22.4	2016
Times (day) for 90 labs	270	612	180	54	27	270	243	360	2016	Area 7 1999 1999 1999 1999 1999 1999 1999 1
Manpower (person-days)	10.6	24.4	8	2.1	1	13	11.7	15	85.8	7722
Manpower (person-days) times90 labs	954	2196	720	189	90	1170	1053	1350	7722	
Costs for supercompaction (per \$1,000)	16	35.2	12	6	2.4	26	19.8	20	137.4	13740

Table A.1. Number and Dimensions of Facility Components

Assumptions:

1. Of roughly 250 laboratories, 90 will require decontamination and final status surveys.

2. Times (days) and Manpower (person- days) are averages of different types of laboratories.

3. Times (days) are the time it takes to decontaminate the item.

4. Manpower (person-days) is the time it takes to decontaminate and dismantle the item.

5. Each laboratory has 2 fume hoods, four benches and five cabinets.

6. Equipment consists of freezers/refrigerators each with dimensions 0.6m x 0.6m x 1.5m.

7. Sink drains have the measurements of 0.12m diameter & 10 m long.

8. The ceiling (one square meter) measurements are 100 square meters for each of the 250 laboratories.

9. The wall (one square meter) measurements are 90 square meters for each of the 250 laboratories.

10. The floor (one square meter) measurements are 100 square meters for each of the 250 laboratories.

· · · ·	Table A.2 Dianning an	d Preparation (work days)
	a abie M.Z. Flamming an	u Frepalation (work days)

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	Principal	Principal HP	HP Tech	Admin II	Total Days
Preparation of Documentation for Regulatory Agencies	30	30		5	65
Submittal of Decommissioning Plan to NRC when required by 10 CFR 30.36 (g)(1), 40.42(g)(1) or					
70.38(g)(1)	10	10		3	23
Development of Work Plan	60	60		3	123
Procurement of Special Equipment	10	10	1	1	22
Staff Training	5	5	0.5	0.5	11
Characterization of Radiological Condition of the Facility (including sampling, soil and tailing analysis)	20	20	2		42
Other			-		
Column Totals	135	135	3.5	12.5	286
					286

nana da anta anta a fan de a tea tea anta a tea a tea a tea a tea a tea de de En anta de	Times (days)	Principal	Principal HP	Field Supervisor	HP Tech	Manpower (person days)	_Totals
Fume Hood	270	2	2	314	640	954	958
Workbenches	612	10	10	725	1471	2196	2216
Cabinets	180	1	1	238	482	720	722
Equipment	54	0.5	0.5	62	127	189	190
Sink/drains	27	0.5	0.5	30	60	90	91
Ceilings	270	2	2	386	784	1170	1174
Walls	243	2	2	347	706	1053	1057
Floor	360	2	2	445	905	1350	1354
Total days	2016	20	20	2547	5175	7722	7762

Table A.3. Decontamination and Dismantling of Radioactive Facility Components (work days)

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	Principal	Principal HP	HP Tech	Admin II		Total Days
Final status survey measurements and data collection			20			20
collection			20			20
Preparation of Documentation for Regulatory Agencies	16	16		3	···	35
Submittal of Decommissioning Report	5	5		1		11
						-
Reanalysis (sampling and removing materials)	10	10	3			23
Amendment to Decommissioning						
Report	2	2		···· 1		5
Staff Briefing	2	2	1	1		6
Other					· · · · · · ·	
Column Totals	35	35	24	6		100
TOTAL number of days:					· · · · · · · · · · · · · · · · · · ·	100

Table A.4. Final Radiation Survey (work days)

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	Principal	Principal HP	HP Tech	Admin II	Field Supervisor	Total Days
Planning and Preparation	135	135	3.5	12.5	0	286
Decontamination and/or						
Dismantling of Radioactive				1		-
Facility Components	20	_ 20	5175		2547	7762
Final Radiation Survey	35	35	24	6	0	100
			:			
Column Totals	190	190	5202.5	18.5	2547	8148
		19 (A)	-			
Total				1.		8148

Table A.5. Total Work Days by Labor Category

Table A.6. Worker Unit Cost Schedule

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	Field Supervisor	Principal	Principal Health Physicist	Health Physics Technicians	Administrative Assistant	Laborer
Hourly Rate	\$26.13	\$82.15	\$54.53	\$31.40	\$21.83	\$23.76
Hourly rate w/overhead	\$57.70	\$181.40	\$120.41	\$69.34	\$48.21	\$52.47
Salary w/Fringe (\$/year)	\$54,533.31	\$171,447.05	\$113,804.11	\$65,531.80	\$45,559.21	\$49,587.12
Overhead Rate (%)	120.82%	120.82%	120.82%	120.82%	120.82%	120.82%
Total Cost Per Year	\$120,420.46	\$378,589.38	\$251,302.24	\$144,707.32	\$100,603.85	\$109,498.28
Total Cost Per Work Day	\$461.60	\$1,451.23	\$963.31	\$554.70	\$385.64	\$419.73
	I Cost Per Work Da	y: Hourly Rate w	e + Overhead = Total Cost I /overhead x 8 hours of work	Per Year day		
	I Cost Per Work Da	Salary w/Fring y: Hourly Rate w	e + Overhead = Total Cost I /overhead x 8 hours of work	day	Administrative Assistant	Laborer
Calculation of Tota	I Cost Per Work Da	Salary w/Fring y: Hourly Rate w ction 2.6, Decom	ye + Overhead = Total Cost F /overhead x 8 hours of work	Per Year day <u>3 Health Physics Technicians</u> \$94.20	Administrative Assistant \$21.83	Laborer \$23.76
Calculation of Tota	I Cost Per Work Da REG/CR-6477, Sec Field Supervisor	Salary w/Fring y: Hourly Rate w stion 2.6, Decom Principal	ye + Overhead = Total Cost F /overhead x 8 hours of work missioning Crew Principal Health Physicist	day 3 Health Physics Technicians		:
Calculation of Tota	REG/CR-6477, Sec Field Supervisor \$26.13	Salary w/Fring y: Hourly Rate w stion 2.6, Decom Principal \$82.15	e + Overhead = Total Cost F /overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53	day <u>3 Health Physics Technicians</u> \$94.20	\$21.83	\$23.76 \$52.47
Calculation of Tota WRAMC Assumes NU Hourly Rate Hourly rate w/overhead Salary w/Fringe (\$/year)	REG/CR-6477, Sec Field Supervisor \$26.13 \$57.70	Salary w/Fring y: Hourly Rate w ction 2.6, Decom Principal \$82.15 \$181.40	e + Overhead = Total Cost F /overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53 \$120.41	day <u>3 Health Physics Technicians</u> \$94.20 \$208.01	\$21.83 \$48.21	\$23.76 \$52.47
Calculation of Tota	REG/CR-6477, Sec Field Supervisor \$26.13 \$57.70 \$54,533.31	Salary w/Fring y: Hourly Rate w ction 2.6, Decom Principal \$82.15 \$181.40 \$171,447.05	e + Overhead = Total Cost F /overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53 \$120.41 \$113,804.11	day <u>3 Health Physics Technicians</u> \$94.20 \$208.01 \$196,595.40	\$21.83 \$48.21 \$45,559.21	\$23.76 \$52.47 \$49,587.12

	Principal	Principal HP	3 HP Techs	Admin II	Field Supervisor	Total Costs
Planning and Preparation						
(Product of values at bottom of Tables A.2 and A.6)	195916	130047	1906	4821		332690
Decontamination and/or Dismantling of Radioactive Facility Components (Product of values at bottom of Tables A.3 and A.6)	29025	19266	2818823	0	1175695	4042809
Final Radiation Survey (Product of values at bottom of Tables A.4 and A.6)	50793	33716	13073	2314		99896
Column Total	275734	183029	2833802	7134	1175695	4475394

Table A.7. Total Labor Costs by Major Decommissioning Task

	Cost
Planning and Preparation	\$332,690
Decontamination and/or Dismantling of	
Radioactive Facility Components	\$4,042,809
Final Radiation Survey	\$99,896
Wyasta Cost Untormation provided by Rock	
Waste Cost (information provided by Rock Island Arsenal who handles the disposal of waste)	\$4,462,249
Island Arsenal who handles the disposal of waste)	\$4,462,249
Island Arsenal who handles the disposal of waste)	
Island Arsenal who handles the disposal of waste) Miscellaneous Cost (supplies)	\$100,000

Table A.8. Total Decommissioning Costs



DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVE NW WASHINGTON DC 20307-5001



May 6, 2008

Radiation Safety Officer

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Allendale Road King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

Walter Reed Army Medical Center (WRAMC) uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of April 30, 2015.

We request to amend NRC license 08-01738-02 issued to WRAMC to add an additional Model for sealed sources under Item 7.L for Gd-153. Please add an additional Isotope Products Laboratories Model HEGL-0133. We have also recently disposed of our Strontium-90 eye applicator sources and would like to delete line E. from items 6,7 and 8. and also the RSO in line 11. E should be updated to Colonel Mark Melanson, Ph.D.

We also request expedited processing and please FAX a copy of the approved amendment to (202) 356-0086. A new camera system is being installed and the source is part of that system.

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

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Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer







April 11, 2008

Radiation Safety Officer

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Allendale Road King of Prussia, Pennsylvania 19406-1415

Dear Ms. Lanzisera:

Walter Reed Army Medical Center (WRAMC) uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of April 30, 2015.

The following information is provided at your request (mail Control No. 142097):

Radium 226, sealed source for calibration of Dose Calibrator is in storage as a backup standard and has an activity of 10 mCi (no manufacturer information is available, we have leak test data back to April 1981 but believe source is older than that and earliest records list manufacturer as unknown)

Paladium-103, sealed sources (seeds) for patient treatment are currently provided by Theragenics Corporation, model 200

Fluorine-18, unsealed for Medical diagnosis, 1.0 Curie limit was requested because the limit under item 6.A is only 400 mCi per isotope and the number of unit doses, the short half-life and the timing of delivery by the supplier may in the future cause us to exceed that limit.

We also request expedited processing and please FAX a copy of the approved amendment to (202) 356-0086. We are still having problems with our irradiated mail reaching us in a timely and legible manner

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

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Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer



Burton, David Mr WRAMC-Wash DC

From:Melanson, Mark A COL WRAMC-Wash DCSent:Monday, April 07, 2008 3:37 PMTo:Burton, David Mr WRAMC-Wash DCSubject:FW: Request for Additional information to support amendmentrequest (UNCLASSIFIED)

Classification: UNCLASSIFIED Caveats: NONE

Dave,

Please provide.

----Original Message----From: Penny Lanzisera [mailto:PAN@nrc.gov] Sent: Monday, April 07, 2008 3:07 PM To: Melanson, Mark A COL WRAMC-Wash DC Subject: Request for Additional information to support amendmentrequest L.N. 08-01738-02 D.N. 030-01317

D.N. 030-01317 Mail Control 142097 Walter Reed Medical Center

Dr. Melanson, to support your request to add licensed material, please provide the following:

1. Exact activity and the manufacturer/model number (if available) for the Ra-226 source requested. Also, indicate whether this source is still in use or whether the source is in storage awaiting disposal.

2. The manufacturer and model number for the Pd-103 sources requested.

Additionally, please note that F-18 is already included on your license under Item 6.A.

Finally, in accordance with current NRC licensing guidance, please provide the manufacturer/model number and source/device activity for each of your irradiators.

You may reply to my attention via facsimile to 610-337-5269. Please reference Mail Control No. 142097 in your response. Sincerely,

Penny Lanzisera Senior HP US NRC, Region 1 Classification: UNCLASSIFIED Caveats: NONE



DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVE NW WASHINGTON DC 20307-5001



February 29, 2008

Radiation Safety Officer

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Allendale Road King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

Walter Reed Army Medical Center (WRAMC) uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of April 30, 2015.

We request to amend NRC license 08-01738-02 issued to WRAMC to add isotopes previously listed on our Army Radiation Authorization:

Radium 226, sealed source for calibration of Dose calibrator, 25 mCi limit (no manufacturer information is available)

Paladium-103, sealed sources (seeds) for patient treatment, 2.5 Curie limit

Fluorine-18, unsealed for Medical diagnosis, 1.0 Curie limit

We also request expedited processing and please FAX a copy of the approved amendment to (202) 356-0086. We are still having problems with our irradiated mail reaching us in a timely and legible manner.

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

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Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer







February, 8 2008

Health Physics Office

Director, Office of Federal and State Materials and Environment Management Programs U.S. Nuclear Regulatory Commission Two White Flint North 11545 Rockville Pike Rockville, Maryland 20852-2738 Attention: Christian Einberg, Mail Stop T8E24

Dear Mr. Einberg,

I certify that Major Amy Susan King, Director of Safety, Walter Reed Army Institute of Research, is trustworthy and reliable, and, as such, is designated as the Trustworthy and Reliability Official for License Number: NR 08-01738-02, Docket Number: 030-01317.

Please direct inquiries regarding this correspondence to the undersigned at (202)356-0060.

Sincerely,

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Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer





REPLY TO ATTENTION OF: MCHL-HP

16 January 2008

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER (WRAMC)

1. This Decommissioning Funding Plan supersedes the plan provided as previous correspondence dated 16 January 2004.

2. References.

a. WRAMC Broad Scope Materials License No. 08-01738-02. This plan addresses all WRAMC facilities and the use of NRC regulated byproduct materials as described in the license.

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c. NUREG/CR-6477, October 2002, Revised Analyses of Decommissioning Reference Non-Fuel-Cycle Facilities. This plan assumes a decommissioning crew as presented in Section 2.6 (Decommissioning of Reference Facilities) and makes use of reference data from Section 5 (Decommission of Facility Components) of NUREG/CR-6477.

d. Mike S. Styvaert, Health Physicist, United States Army Joint Munitions Command, Cost Estimating Tools, 2007. Mr. Styvaert provided the current labor costs used in this plan.

3. The total estimated costs for decommissioning all WRAMC NRC licensed facilities as described in Reference 2a above is \$13,556,466. Detailed tables of our cost estimate are provided in the Appendix. The tables follow the format provided in Reference 2b, however, they exclude specific waste disposal calculations. Our estimate for waste disposal, provided below, is based on our recent experience with actual decommissioning procedures and costs.

4. Waste Disposal Costs. We assumed all major equipment would be decontaminated rather than shipped as waste and all decontamination liquids would be low enough in activity to allow discharge in the sanitary sewer. We recently decommissioned our largest facility whereby only 11 drums of waste were generated for burial. Conservatively assuming 50 drums (55 gallons each) of waste would be shipped as one truckload, the transportation costs would be \$3100. Container costs would be \$5500.

MCHL-HP SUBJECT: WRAMC Decommissioning Funding Plan 16 January 2008

Burial costs are estimated at \$187,500 (\$500 per cubic foot or \$3,750 per drum). The two irradiators we possess would be \$175,000 each to ship as waste. So our total waste costs are estimated at \$546,100.

5. Adjusting cost estimates and associated funding levels will be by reanalysis upon occasion of broad scope license renewal.

6. Point of contact for further information on this decommissioning funding plan is the undersigned, (202) 356-0060, mark.melanson@us.army.mil.

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MARK A. MELANSON, Ph.D. COL, MS Chief, Health Physics WRAMC

16 January 2008

APPENDIX

for the

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER (WRAMC)

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Fume Hood	Workbenches	Cabinets	Equipment	Sink/drains	Ceilings	Walls	Floor	Total	x 90 labs
1.5	1.7	0.4	0.6	0.3	0.03	0.03	0.04	4.6	414
5.3	6.1	1.6	2.1	1	0.13	0.13	0.15	16.51	1485.9
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lata after	taking all t	he assu	Imptions	into acco	unt.				
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270	612	180	54	27	270	243	360	2016	
10.6	24.4	8	2.1	1	13	11.7	15	85.8	7722
954	2196	720	189	90	1170	1053	1350	7722	
16	35.2	12	6	2.4	26	19.8	20	137.4	13740
	1.5 5.3 8 lata after Fume Hood 3 270 10.6 954	5.3 6.1 8 8.8 Jata after taking all the second workbenches 3 6.8 270 612 10.6 24.4 954 2196	1.5 1.7 0.4 5.3 6.1 1.6 8 8.8 2.4 lata after taking all the assumed workbenches Cabinets 3 6.8 2 270 612 180 10.6 24.4 8 954 2196 720	1.5 1.7 0.4 0.6 5.3 6.1 1.6 2.1 8 8.8 2.4 6 Iata after taking all the assumptions Fume Hood Workbenches Cabinets Equipment 3 6.8 2 0.6 270 612 180 54 10.6 24.4 8 2.1 954 2196 720 189	1.5 1.7 0.4 0.6 0.3 5.3 6.1 1.6 2.1 1 8 8.8 2.4 6 2.4 lata after taking all the assumptions into acco Fume Hood Workbenches Cabinets Equipment Sink/drains 3 6.8 2 0.6 0.3 270 612 180 54 27 10.6 24.4 8 2.1 1 954 2196 720 189 90	1.5 1.7 0.4 0.6 0.3 0.03 5.3 6.1 1.6 2.1 1 0.13 8 8.8 2.4 6 2.4 0.26 Iata after taking all the assumptions into account. Fume Hood Workbenches Cabinets Equipment Sink/drains Ceilings 3 6.8 2 0.6 0.3 3 270 612 180 54 27 270 10.6 24.4 8 2.1 1 13 954 2196 720 189 90 1170	1.5 1.7 0.4 0.6 0.3 0.03 0.03 5.3 6.1 1.6 2.1 1 0.13 0.13 8 8.8 2.4 6 2.4 0.26 0.22 Iata after taking all the assumptions into account. Fume Hood Workbenches Cabinets Equipment Sink/drains Ceilings Walls 3 6.8 2 0.6 0.3 3 2.7 270 612 180 54 27 270 243 10.6 24.4 8 2.1 1 13 11.7 954 2196 720 189 90 1170 1053	1.5 1.7 0.4 0.6 0.3 0.03 0.03 0.04 5.3 6.1 1.6 2.1 1 0.13 0.13 0.15 8 8.8 2.4 6 2.4 0.26 0.22 0.2 Iata after taking all the assumptions into account. Fume Hood Workbenches Cabinets Equipment Sink/drains Ceilings Walls Floor 3 6.8 2 0.6 0.3 3 2.7 4 270 612 180 54 27 270 243 360 10.6 24.4 8 2.1 1 13 11.7 15 954 2196 720 189 90 1170 1053 1350	1.5 1.7 0.4 0.6 0.3 0.03 0.03 0.04 4.6 5.3 6.1 1.6 2.1 1 0.13 0.15 16.51 8 8.8 2.4 6 2.4 0.26 0.22 0.2 28.28 Idata after taking all the assumptions into account. Floor Total 3 6.8 2 0.6 0.3 3 2.7 4 22.4 270 612 180 54 27 270 243 360 2016 10.6 24.4 8 2.1 1 13 11.7 15 85.8 954 2196 720 189 90 1170 1053 1350 7722

Table A.1. Number and Dimensions of Facility Components

Assumptions:

1. Of roughly 250 laboratories, 90 will require decontamination and final status surveys.

2. Times (days) and Manpower (person- days) are averages of different types of laboratories.

3. Times (days) are the time it takes to decontaminate the item.

4. Manpower (person-days) is the time it takes to decontaminate and dismantle the item.

5. Each laboratory has 2 fume hoods, four benches and five cabinets.

6. Equipment consists of freezers/refrigerators each with dimensions 0.6m x 0.6m x 1.5m.

7. Sink drains have the measurements of 0.12m diameter & 10 m long.

8. The ceiling (one square meter) measurements are 100 square meters for each of the 250 laboratories.

9. The wall (one square meter) measurements are 90 square meters for each of the 250 laboratories.

10. The floor (one square meter) measurements are 100 square meters for each of the 250 laboratories.

Table A.2. Planning and Preparation (work days)

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	Principal	Principal HP	HP Tech	Admin II	Total Days
Preparation of Documentation for			·	· · · · · · · · · · · · · · · · · · ·	
Regulatory Agencies	30	30		5	65
Submittal of Decommissioning				······	
Plan to NRC when required by 10					
CFR 30.36 (g)(1), 40.42(g)(1) or		5 -			
70.38(g)(1)	10	10		3	23
Development of Work Plan	60	60		3	123
Procurement of Special					
Equipment	10	10	1	1	22
Staff Training	5	5	0.5	0.5	11
	.		0.0	0.0	
Characterization of Radiological Condition of the Facility (including sampling, soil and tailing analysis)	20	20	2	· · · · · · · · · · · · · · · · · · ·	42
Other					
Column Totals	135	135	3.5	12.5	286
TOTAL number of days:					286

			Anan ka ana ka ka kabupaten sebar di baman ka da an barabarka ka anton			Manpower	11, 11, 11, 11, 12, 12, 12, 12, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10
	Times (days)	Principal	Principal HP	Field Supervisor	HP Tech	(person days)	Totals
Fume Hood	270	2	2	314	640	954	958
Workbenches	612	10	10	725	1471	2196	2216
Cabinets	180	1	1	238	482	720	722
Equipment	54	0.5	0.5	62	127	189	190
Sink/drains	27	0.5	0.5	30	60	90	91
Ceilings	270	2	2	386	784	1170	1174
Walls	243	2	2	347	706	1053	1057
Floor	360	2	2	445	905	1350	1354
Total days	2016	20	20	2547	5175	7722	7762

Table A.3. Decontamination and Dismantling of Radioactive Facility Components (work days)

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Table A.4. Final Radiation Survey (work days)

	Principal	Principal HP	HP Tech	Admin II		Total Days
Final status survey measurements and data collection			20		Anthe and the and the Child Anthe Anthe Anthe Anthe	20
Preparation of Documentation for Regulatory Agencies	16	16		3		35
Submittal of Decommissioning						
Report	5	5		1		11
Reanalysis (sampling and						
	10	10	3			23
removing materials)	10	10	3			23
removing materials) Amendment to Decommissioning Report	10 2	10 2	3	1		23 5
removing materials) Amendment to Decommissioning			3	1		
removing materials) Amendment to Decommissioning Report	2	2			· · · · · · · · · · · · · · · · · · ·	5
removing materials) Amendment to Decommissioning Report Staff Briefing	2	2				5

	Principal	Principal HP	HP Tech	Admin II	Field Supervisor	Total Days
L						
Planning and Preparation	135	135	3.5	12.5	0	286
Decontamination and/or						
Dismantling of Radioactive		1				
Facility Components	20	20	5175		2547	7762
Final Radiation Survey	35	35	24	6	0	100
	_					100
Column Totals	190	190	5202.5	18.5	2547	8148
Total						8148

Table A.5. Total Work Days by Labor Category

Table A.6. Worker Unit Cost Schedule

and the second secon	Field Supervisor	Principal	Principal Health Physicist	Health Physics Technicians	Administrative Assistant	Laborer
Hourly Data	\$26.13	600 45	<u> </u>			
Hourly Rate	\$20.13	\$82.15	\$54.53	\$31.40	\$21.83	\$23.76
Hourly rate w/overhead	\$57.70	\$181.40	\$120.41	\$69.34	\$48.21	\$52.47
Salary w/Fringe (\$/year)	\$54,533.31	\$171,447.05	\$113,804.11	\$65,531.80	\$45,559.21	\$49,587.12
Overhead Rate (%)	120.82%	120.82%	120.82%	120.82%	120.82%	120.82%
Total Cost Per Year	\$120,420.46	\$378,589.38	\$251,302.24	\$144,707.32	\$100,603.85	\$109,498.2
Total Cost Per Work Day	\$461.60	\$1,451.23	\$963.31	\$554.70	\$385.64	\$419.73
Calculation of Salar Calculation of Total		Salary x Overh	087(number of work hours in lead rate = Overhead e + Overhead = Total Cost I	•		
Calculation of Total	Cost per year: Cost Per Work Da	Salary x Overh Salary w/Fring y: Hourly Rate w	ead rate = Overhead e + Overhead = Total Cost I /overhead x 8 hours of work	Per Year		
Calculation of Total	Cost per year: Cost Per Work Da	Salary x Overh Salary w/Fring y: Hourly Rate w	ead rate = Overhead e + Overhead = Total Cost I /overhead x 8 hours of work	Per Year	Administrative Assistant	Laborer
Calculation of Total Calculation of Total WRAMC Assumes NUF	Cost per year: Cost Per Work Da REG/CR-6477, Sec	Salary x Overh Salary w/Fring y: Hourly Rate w ction 2.6, Decom	ead rate = Overhead e + Overhead = Total Cost I /overhead x 8 hours of work missioning Crew	Per Year day	Administrative Assistant \$21.83	Laborer \$23.76
Calculation of Total Calculation of Total WRAMC Assumes NUF	Cost per year: Cost Per Work Da REG/CR-6477, Sec Field Supervisor	Salary x Overh Salary w/Fring y: Hourly Rate w tion 2.6, Decom Principal	ead rate = Overhead e + Overhead = Total Cost I /overhead x 8 hours of work missioning Crew Principal Health Physicist	Per Year day 3 Health Physics Technicians		
Calculation of Total Calculation of Total WRAMC Assumes NUF Hourly Rate	Cost per year: Cost Per Work Da REG/CR-6477, Sec Field Supervisor \$26.13	Salary x Overh Salary w/Fring y: Hourly Rate w tion 2.6, Decom Principal \$82.15	e + Overhead = Total Cost I overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53	Per Year day <u>3 Health Physics Technicians</u> \$94.20	\$21.83	\$23.76 \$52.47
Calculation of Total Calculation of Total WRAMC Assumes NUF Hourly Rate Hourly rate w/overhead Salary w/Fringe (\$/year)	Cost per year: Cost Per Work Da REG/CR-6477, Sec Field Supervisor \$26.13 \$57.70	Salary x Overh Salary w/Fring y: Hourly Rate w tion 2.6, Decom Principal \$82.15 \$181.40	e + Overhead = Total Cost I /overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53 \$120.41	Per Year day <u>3 Health Physics Technicians</u> \$94.20 \$208.01	\$21.83 \$48.21	\$23.76 \$52.47
Calculation of Total	Cost per year: Cost Per Work Da REG/CR-6477, Sec Field Supervisor \$26.13 \$57.70 \$54,533.31	Salary x Overh Salary w/Fring y: Hourly Rate w/ ction 2.6, Decom Principal \$82.15 \$181.40 \$171,447.05	e + Overhead = Total Cost I /overhead x 8 hours of work missioning Crew Principal Health Physicist \$54.53 \$120.41 \$113,804.11	Per Year day <u>3 Health Physics Technicians</u> \$94.20 \$208.01 \$196,595.40	\$21.83 \$48.21 \$45,559.21	\$23.76 \$52.47 \$49,587.12

	Principal	Principal HP	3 HP Techs	Admin II	Field Supervisor	Total Costs
Planning and Preparation (Product of values at bottom of						
Tables A.2 and A.6)	195916	130047	5824	4821		336608
Decontamination and/or						
Dismantling of Radioactive Facility Components						
(Product of values at bottom of Tables A.3 and A.6)	29025	19266	8611718	0	1175695	9835704
Final Radiation Survey Product of values at bottom of Tables A.4 and A.6)	50793	33716	39938	2314		126761
Column Total	275734	183029	9657400	7464		
		103029	8657480	7134	1175695	10299072

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	:
Table A.7. Total Labor Costs by Major Decommissioning	l Task

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	Cost
Planning and Preparation	\$336,608
Decontamination and/or Dismantling of	
Radioactive Facility Components	\$9,835,704
Final Radiation Survey	\$126,761
Waste Cost (information provided by Rock Island Arsenal who handles the disposal of waste)	\$546,100
Miscellaneous Cost	
Subtotal of Cost of Decommissioning	\$10,845,173
25% Contingency (mandatory)	\$2,711,293
Total Cost of Decommissioning	\$13,556,466

Table A.8. Total Decommissioning Costs



DEPARTMENT OF THE ARMY NORTH ATLANTIC REGIONAL MEDICAL COMMAND AND WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVENUE NW WASHINGTON DC 20307-5000

REPLY TO ATTENTION OF

2 5 JAN 2008

Office of the Commanding General

STATEMENT OF INTENT

1. I, the Commander of the North Atlantic Regional Medical Command, am the official, duly appointed by Headquarters, Department of the Army, to represent my organization.

2. I submit this Statement of Intent for the Nuclear Regulatory Commission (NRC) License Number 08-01738-02, expiration date 30 April 2015.

3. The facilities included under this Statement of Intent are:

a. Walter Reed Army Medical Center, Washington, District of Columbia.

b. Armed Forces Institute of Pathology, Washington, District of Columbia.

c. Walter Reed Army Medical Center, Forest Glen Section and Annex, Silver Spring, Maryland.

d. Walter Reed Army Institute of Research, Forest Glen Section and Annex, Silver Spring, Maryland.

e. Walter Reed Army Institute of Research, Gillette Building, 270 Research Center, 1413 Research Blvd., Rockville, MD.

f. Walter Reed Army Institute of Research, Rickman Building, 13 Taft Court, Rockville, Maryland.

4. Based upon our Decommissioning Funding Plan, Compiled IAW Nuclear Regulatory Commission guidance, we currently estimate our total decommissioning cost to be \$13,556,500.

5. As Commanding General of the North Atlantic Regional Medical Command and designated licensee of our NRC licenses, I am providing this written assurance that sufficient funds for decommissioning will be secured when necessary for the eventual decommissioning of our licenses. The decommissioning of the Walter Reed Nuclear Regulatory Commission license has been authorized and funding has been earmarked as part of the Base Realignment and Closure (BRAC) of Walter Reed Army Medical Center in fiscal year 2011.

6. My points of contact for this action are COL Mark Melanson at (202) 356-0060, or Mr. Randy Treiber at (202) 356-1012, ext. 40640.

Carla Hawley-Bowland

Carla Hawley-Bowland Major General, USA Commanding



DEPARTMENT OF THE ARMY NORTH ATLANTIC REGIONAL MEDICAL COMMAND AND WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVENUE NW WASHINGTON DC 20307-5000

2 5 JAN 2008

REPLY TO ATTENTION OF

Office of the Commanding General

CERTIFICATION OF FINANCIAL ASSURANCE

Principal: Department of the Army, Walter Reed Army Medical Center, 6900 Georgia Avenue, NW, Washington, D.C. 20307-5001. Nuclear Regulatory Commission (NRC) License Number 08-01738-02, expiration date 30 April 2015, Walter Reed Army Medical Center, 6900 Georgia Ave., NW, Washington, D.C. 20307-5001.

Issued to: U.S. Nuclear Regulatory Commission

I certify that Walter Reed Army Medical Center is licensed to possess the following types of "sealed sources or plated foils with a half-life greater than 120 days licensed under 10 CFR Part 30," and "unsealed byproduct material with a half-life greater than 120 days licensed under 10 CFR Part 30," in the following amounts:

Isotope	Type of Material	Amount of Material
Atomic numbers 1 through 83	Any	400 Millicuries per radionuclide and 26 Curies total
Hydrogen 3	Any	2 Curies
Strontium 90	Sealed Sources (Isotope Products, Inc. Model BF 90 Ti Series [labeled as 67-850], Tracerlab Models RA-1A and RA-2A, Nuclear Enterprises Model 2503)	500 millicuries
Cesium 137	Sealed Sources (3M Health Physics Service Model Series 6500 [formerly 6D6C-CA]	2 Curies
Gadolinium 153	Sealed Sources (Isotope Products Laboratories Models NES-8424, NES-8412, and HEGL-0120, AEA Technology Model GD.LIN2)	6 Curies
Cesium 137	Sealed Sources (3M Health Physics Service Model Series 6500 [formerly 6D6C-CA]	50 millicuries

Americium 241	Sealed Source (Monsanto Agricultural Company Model 2704)	1.1 Curies	
Plutonium 239	Any	0.01 millicuries	1
Americium 241	Any	0.01 millicuries	
Depleted Uranium	Metal	400 kilograms	
Cesium 137	Sealed Sources (J.L. Shepherd & Associates	No single source to exceed	
	Model 6810; ORNL Model A-0096; Amersham Corporation (Reviss Services Limited) Models CDC.PE1, CDC.PE2,CDC.PE3, (R6000), CDC.PE4 (R6010), CDC.PE5 (R6020), CDC.PE6 (R6030), CDC.PE7 (R6040), CDC.PE8 (R6050))	the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State	
 Cobalt 60	Sealed Sources (J.L. Shepherd & Associates Model 7810)	No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State	

4. Based upon our Decommissioning Funding Plan, Compiled IAW Nuclear Regulatory Commission guidance, we currently estimate our total decommissioning cost to be \$13,556,500.

5. As Commanding General of the North Atlantic Regional Medical Command and designated licensee of our NRC licenses, I am providing this written assurance that sufficient funds for decommissioning will be secured when necessary for the eventual decommissioning as prescribed by 10 CFR Part 30. The decommissioning of the Walter Reed Nuclear Regulatory Commission License has been authorized and funding has been earmarked as part of the Base Realignment and Closure (BRAC) of Walter Reed Army Medical Center in fiscal year 2011.

6. My points of contact for this action are COL Mark Melanson at 202-356-0060, or Mr. Randy Treiber at 202-356-1012, ext. 40640.

Carla Hawley-Bowland Major General, USA Commanding



DEPARTMENT OF THE ARMY NORTH ATLANTIC REGIONAL MEDICAL COMMAND AND WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVENUE, NORTHWEST WASHINGTON, DC 20307-5001

MCAT-HQ

11 December 2007

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Assumption of Command

1. Reference AR 600-20, Army Command Policy, paragraph 2-5c and AR 40-1.

2. The undersigned assumes command of the North Atlantic Regional Medical Command, Washington, DC 20307-5001 (W07TAA) and Walter Reed Army Medical Center, Washington, DC 20307-5001 (W2DHAA), effective 11 December 2007.

Carla G. Hawley-Boylland Major General, Medical Corps Commanding

DISTRIBUTION: Cdr, WRHCS CofS, NARMC SGS, NARMC CSM, NARMC Cdr. MCB Cdr, WTB Cdr. NARVC Cdr, NARDC ACSPER ACSRM ACSIM ACSOPS ACSCLINOPS ACSLA Cdr. Garrison IR CPO EEO

Chaplain IG PAO CJA MPRJ



UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I

475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 15, 2007

License No. 08-01738-02

Docket No. 03001317 Control No. 138212

Thomas M. Fitzpatrick, MC Deputy Commander for Clinical Services Department of the Army Walter Reed Army Medical Center 6900 Georgia Avenue NW Washington, DC 20307-5001

SUBJECT: DEPARTMENT OF THE ARMY, REQUEST FOR ADDITIONAL INFORMATION CONCERNING FINANCIAL ASSURANCE DOCUMENTS, CONTROL NO. 138212

Dear COL Fitzpatrick:

This is in reference to audit finding associated with financial assurance for decommissioning for Nuclear Regulatory Commission License No. 08-01738-02. In order to continue our review, we need the following additional information:

- 1. There appears to have been no Certification of Financial Assurance submitted with you Financial Assurance documents. This document is needed as stated in NUREG-1757 Volume 3. Please submit a Certification of Financial Assurance, please follow closely the model on page A-23 of NUREG-1757, Volume 3.
- 2. Documentation was not included with your Statement of Intent that Major General Kiley has the authority to request and obtain decommissioning funds from the appropriate funding body when necessary. Please enclose the documentation that demonstrates he may sign the statement of intent.
- 3. Since it has been greater than three years since you decommissioning funding plan, please provide an updated cost estimate. Performing an update at least every three year is required by 10 CFR 30.35(e). If the updated estimate is greater than your current amount in the Statement of Intent then you will need to resubmit your financial instrument.

Current NRC regulations and guidance are included on the NRC's website at <u>www.nrc.gov</u>; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material;** then **Regulations, Guidance, and Communications.** You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 138212. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5366.

T. Fitzpatrick, MC Department of the Army	2
	Sincerely,
	Original signed by Dennis R. Lawyer
	Dennis R. Lawyer Health Physicist Commercial and R&D Branch Division of Nuclear Materials Safety
cc: COL Mark Melanson, Ph.D., Radiat	

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DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVE NW WASHINGTON DC 20307-5001



September 27, 2007

Radiation Safety Officer

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Allendale Road King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

Walter Reed Army Medical Center (WRAMC) uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of April 30, 2015.

We request to amend NRC license 08-01738-02 issued to WRAMC to add an additional Model for sealed sources under Item 7.J for Gd-153. Please add an additional Isotope Products Laboratories Model NES-8412.

We also request expedited processing and please FAX a copy of the approved amendment to (202) 356-0086. A new camera system is being installed and the sources will not be shipped until the new amendment is supplied.

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

Ch di

Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer





UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415

February 8, 2007

Docket No. 03001317

License No.

08-01738-02

Colonel Charles Callahan, MC Deputy Commander for Clinical Services Department of the Army Walter Reed Army Medical Center 6900 Georgia Avenue, NW Washington, DC 20307-5001

SUBJECT: INSPECTION 03001317/2007001, DEPARTMENT OF THE ARMY

Dear Colonel Callahan:

This letter forwards NRC Form 591, "Safety Inspection," indicating that no items of noncompliance were found during the above described inspection of your licensed activities. Please retain the form in your files. No acknowledgment of this letter is required. However, should you have any questions, we shall be pleased to discuss them with you.

Current NRC regulations are included on the NRC's website at <u>www.nrc.gov</u>; select Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material; then Toolkit Index Page. The current Enforcement Policy is included on the NRC's website at <u>www.nrc.gov</u>; select What We Do, Enforcement, then Enforcement Policy. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Your cooperation with us is appreciated.

Sincerely,

Original signed by Willie J. Lee

Willie J. Lee Health Physicist Medical Branch Division of Nuclear Materials Safety

Enclosure: NRC Form 591

cc: LTC Mark Melanson, Ph.D., Radiation Safety Officer





UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 20, 2006

Docket No. 03001317

License No.

08-01738-02

COL Mark A. Melanson, Ph.D., MSC Department of the Army Walter Reed Army Medical Center Chief, Health Physics Office U.S. Army Radiological Advisory Medical Team Building 41, Room 38 6900 Georgia Avenue NW Washington, DC 20307-5001

SUBJECT: INSPECTION 03001317/2006001, DEPARTMENT OF THE ARMY

Dear Colonel Melanson:

On Jul 20, 2006, Todd J. Jackson of this office conducted a security inspection at the above address of activities authorized by the above listed NRC license. The inspection was a review of your implementation of the Increased Controls associated with the Security Order (EA-05-090) dated November 14, 2005. This letter forwards NRC Form 591, "Safety Inspection," indicating that no items of non-compliance were found during the above described inspection of your licensed activities. Please retain the form in your files. No acknowledgment of this letter is required. However, should you have any questions, we shall be pleased to discuss them with you.

Current NRC regulations are included on the NRC's website at <u>www.nrc.gov</u>; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material;** then **Toolkit Index Page.** The current Enforcement Policy is included on the NRC's website at <u>www.nrc.gov</u>; select **What We Do, Enforcement,** then **Enforcement Policy.** Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

This letter and enclosed NRC Form 591M Part 1 contain Security Related Information and will be withheld from public disclosure by the NRC and must be protected from unauthorized disclosure in accordance with Section IC 6 of Attachment B to the Security Order. Security Related Information is also discussed in Regulatory Information Summary (RIS) 2005-31, "Control of Security - Related Sensitive Unclassified Non-Safeguards Information..." (ML053480073) which is available on the NRC web site, <u>www.nrc.gov</u>, select **Electronic**

Official Use Only - Security-Related Information

M. Melanson Department of the Army

Reading Room; All conflections; Generic Communications; Regulatory Issue Summaries; 2005;RIS-05-031.

Your cooperation with us is appreciated.

Sincerely,

John D. Kinneman, Chief Materials Security and Industrial Branch Division of Nuclear Materials Safety

Enclosure: NRC Form 591

Official Use Only - Security-Related Information

NRC FORM 591M PART 1 (10-2003)		L. L	J.S. NUCLEAR REGULAT	ORY COMMISSION
10 CFR 2.201	SPECTION REPORT	AND COMPLIANCE IN	SPECTION	
1. LICENSEE/LOCATION INSPECTED		2. NRC/REGIONAL OFFIC		
Department of the Army			-	
Walter Reed Army Medical Center			latory Commission	
6900 Georgia Avenue, NW		Region I, 475 Aller		
REPORT Nos 2006001		King of Prussia, P	ennsylvania 19406-1	1415
3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S	3)	5. DATE(S) OF INSPEC	TION
03001317	08-01738-02		July 20, 2006	
LICENSEE:				
The inspection was an examination of the activ Nuclear Regulatory Commission (NRC) rules a of procedures and representative records, inter X 1. Based on the inspection findings, r 2. Previous violation(s) closed	nd regulations and the cond views with personnel, and o	itions of your license. The in bservations by the inspector	nspection consisted of sele	ective examinations
3. The vio ation(s), specifically descriidentified, non-repetitive, and corrective, NUREG-1600, to exercise discretion,	ve action was or is being tak			
Non-Cited Violation(s) was/we	are discussed involving the t	(allowing requirement(s) and	Corrective Action(c):	
	ere discussed involving the l	onowing requirement(s) and	Corrective Action(s):	
4. During this inspection certain of yo	ur activities, as described b	elow and/or attached, were i	n violation of NRC requirer	nents and are
being cited. This form is a NOTICE O	F VIOLATION, which may b	e subject to posting in accor	dance with 10 CFR 19.11.	
	· ·			
	Statement of Correct	tive Actions for Item	1 shows	
I hereby state that, within 30 days, the actions d corrective actions is made in accordance with th date when full compliance will be achieved). I ur	escribed by me to the inspense ne requirements of 10 CFR 3	ctor will be taken to correct 2.201 (corrective steps alrea- tten response to NRC will be	the violations identified. The violations identified of the violations identified of the violation of the vi	which will be taken.
LICENSEE'S REPRESENTATIVE				
NRC INSPECTOR Todd J. Jackson,	CHP	- I dette	fili-	8/17/2006
NRC FORM 591M PART 1 (Rev. by RI 07/06)			Record\08-01738-02.2006	6001.591Part1.wpd
	al Use Only - Secul Non-Public	rity-Related Informa	ition isitive	
			**	





February 1, 2006

Radiation Safety Officer

Director, Office of Nuclear Material Safety and Safeguards U. S. Nuclear Regulatory Commission Two White Flint North 11545 Rockville Pike Rockville, MD 20852-2738 ATTN: Ernesto Quinones, Mail Stop T8F3

Dear Sir:

We have reviewed the NRC's document for "ISSUANCE OF ORDER FOR INCREASED CONTROLS FOR CERTAIN RADIOACTIVE MATERIAL LICENSEES" and have concluded that it does apply to our licensed activities.

We will immediately implement the additional controls to supplement existing regulatory requirements, except for the need for constant surveillance of the sources. Within the next 18 months, the room in question will be outfitted with BMS door locks and infrared sensors inside to detect motion. This area will also be on the facility access control card reading system. The security office will code badges for authorized individuals to have access to this area. No one without authorization will be authorized access. Additionally, the facility has armed guards on the premises that will respond to any setting off of the alarms.

The sources in question are dry cell irradiators that include thousands of pounds of shielding material. Currently, the sources are in a locked room with limited access to trusted personnel who must sign for the room and irradiator keys at a separate location, after verification that they are authorized access. The building housing the irradiator room is a controlled access building guarded by armed security guards 24/7; access to the building is limited to workers with proper identification and all visitors are escorted. Additionally, the building is on a secured military installation where access is limited to authorized personnel who must present the proper identification prior to being allowed access.

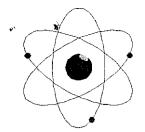
If you have any further questions please feel free to contact myself or my staff at (202)-356-0058.

Withhold From Public disclosure Under 10 CFR 2.390.

Sincerely,

Mul a. melanon)

Mark A. Melanson, Ph.D., CHP Colonel, U.S. Army Radiation Safety Officer



Health Physics Office

Walter Reed Army Medical Center 6900 Georgia Ave., Northwest Building 41, Room 38 Washington, D.C. 20307-5001



Voice (202) 356-0058/0062 DSN: 642-0058

FAX (202) 356-0086

Facsimile Cover Sheet

TO:

FROM:

Director, Office of Nuclear Material Safety and Safeguards U.S. NRC Two White Flint North Attn: Ernesto Quinones Mail Stop T8F3

REMARKS:

David Burton Chief, License Support Branch WRAMC, HPO E-Mail: david.burton.1@NA.amedd.army.mil

Mr. Quinones,

1 February 2006

Enclosed is our response to "ISSUANCE OF ORDER FOR INCREASED CONTROLS FOR CERTAIN RADIOACTIVE MATERIALS LICENSEES".

Thank You,

David Burton WRAMC, Health Physics

Attention: Do not process, store or transmit classified information on unsecured telecommunications systems. Official DoD telecommunications systems, including facsimile machines, are subject to monitoring for telecommunications security purposes at all times. Use of this system constitutes consent to telecommunications security monitoring.

COVER SHEET PLUS 1 PAGES

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 27, 2005

IMPORTANT NOTICE

TO: FEDERAL AGENCY LICENSEES, APPLICANTS, AND CERTIFICATE HOLDERS

SUBJECT: ASSESSMENT OF FEES FOR SPECIFIC SERVICES PROVIDED BY THE NRC

This notice is to inform you that the Nuclear Regulatory Commission (NRC) plans to begin assessing fees for specific services provided by the NRC to any Federal government agency which applies to the NRC for, or is issued by the NRC, a license or certificate. I am notifying you of this plan because you have, in the past, applied for a new NRC license or an amendment to an existing import/export license, or registered a generally licensed device with the NRC. The NRC plans to assess application or registration fees for new requests for these types of NRC services for Federal agencies beginning in late July 2006.

The NRC's authority to assess fees to Federal agencies for specific services was established by the Energy Policy Act of 2005 (P.L. 109-58, Section 623). The NRC plans to implement this new authority through a notice and comment revision to 10 CFR Part 170 published in the *Federal Register*. The NRC plans to publish the proposed rule in February 2006, and the final rule in May 2006. This rule would take effect sixty days from publication, meaning the NRC would assess fees for specific services provided to Federal agencies as of that date (estimated July 2006). (Note the NRC currently has authority to charge 10 CFR Part 171 annual fees to Federal agencies, which is unaffected by the Energy Policy Act.)

The new authority provided by the Energy Policy Act will enhance the fairness and equity of the NRC's fee schedule. Title V of the Independent Offices Appropriation Act of 1952 authorizes Federal regulatory agencies to recover, to the fullest extent possible, the costs of services provided to identifiable recipients. The NRC currently recovers the costs of licensee-specific activities for non-Federal licensees, applicants, and certificate holders under 10 CFR Part 170, but was unable to assess these fees to Federal agencies until the Energy Policy Act. Because activities such as processing license applications provide a specific benefit to the recipient, the NRC believes it is fair and appropriate to recover these costs through Part 170 fees. This fee collection would help the NRC meet the requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, to recover almost all of the NRC's budget through fees.

The NRC's current regulations at 10 CFR Part 170 can be found on the agency's website at: http://www.nrc.gov/reading-rm/doc-collections/cfr/part170/. The current flat fees for new license applications, import/export license amendments, and registrations for generally licensed devices are in 10 CFR 170.21 and 170.31. Note the NRC assesses fees for other specific services provided under the full cost recovery provisions of 10 CFR 170.21 and 170.31, based on professional staff time and contractual support services expended; however, renewals and amendments for existing materials users licenses will not be assessed these fees because these costs are included in their 10 CFR Part 171 annual fees.

If you have any questions or need additional information regarding this matter, please contact William Blaney of my staff at 301-415-5092.

Sincerely,

Jesse L. Funches Chief Financial Officer





December 8, 2005

Radiation Safety Officer

Director, Office of Nuclear Material Safety and Safeguards U. S. Nuclear Regulatory Commission Washington, DC 20555

Dear Sir:

We have just this week received the NRC's document for "ISSUANCE OF ORDER FOR INCREASED CONTROLS FOR CERTAIN RADIOACTIVE MATERIAL LICENSEES". Due to the short suspense of December 9, 2005 we request an extension of time in which to submit an answer or request a hearing.

In order to adequately review the requirements and determine if compliance with any of the requirements is unnecessary in our specific circumstances, more time will be needed. Determining a schedule for completion of each requirement described in Attachment B, including possible installation of alarms or surveillance equipment could realistically take months.

Withhold From Public disclosure Under 10 CFR 2.390.

Sincerely,

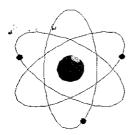
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Mark A. Melanson Colonel, U.S. Army Radiation Safety Officer LAST TRANSACTION REPORT FOR HP FAX-700 SERIES VERSION: 01.03 FAX NAME: WRAMC HPO DATE: 08-DEC-05 FAX NUMBER: 202 356 0086 TIME: 13:11 DATE TIME REMOTE FAX NAME AND NUMBER DURATION PG RESULT DIAGNOSTIC 08-DEC 13:09 S 993014151101 0:01:28 2 0K 6A38401000A4 S=FAX SENT I=POIL IN(FAX RECEIVED)

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I=POLL IN(FAX RECEIVED) O=POLLED OUT(FAX SENT)

TO PRINT THIS REPORT AUTOMATICALLY, SELECT AUTOMATIC REPORTS IN THE SETTINGS MENU. TO PRINT MANUALLY, PRESS THE REPORT/SPACE BUTTON, THEN PRESS ENTER.



Health Physics Office

Walter Reed Army Medical Center 6900 Georgia Ave., Northwest Building 41, Room 38 Washington, D.C. 20307-5001



Voice (202) 356-0058/0062 DSN: 642-0058



FAX (202) 356-0086

Facsimile Cover Sheet

TO:

FROM:

Director Office of Nuclear Material Safety and Safeguards **U.S. Nuclear Regulatory Commission**

REMARKS:

David Burton Chief, License Support Branch WRAMC, HPO E-Mail: david.burton.1@NA.amedd.army.mil



Mr. Strosnider,

8 December 2005

Here is a request from Walter Reed Army Medical Center for an extension on the deadline to respond regarding "Issuance of Order for Increased Controls for Certain Radioactive Material Licensees". The POC for this action is the undersigned at (202) 356-0062.

Thank You,

David Burton WRAMC, Health Physics

Attention: Do not process, store or transmit classified information on unsecured telecommunications systems. Official DoD telecommunications systems, including facsimile machines, are subject to monitoring for telecommunications security purposes at all times. Use of this system constitutes consent to telecommunications security monitoring.

COVER SHEET PLUS <u>1</u> PAGE

RC FORM 591M PART 1		U.S. N	UCLEAR REGULATORY CO	OMMISSION
CFR 2.201				
SAFETY INSPECTIC	IN REPORT AND CO		CTION	
LICENSEE/LOCATION INSPECTED:	ha Aunala 2	NRC/REGIONAL OFFICE		
Department of y Walter ReedArmy	al dical Conter	REGION I		
walter Reed Hrmy	M + [I'' L M] - C C	475 ALLENDALE ROA	ATORY COMMISSION	
Wu - provide the providence of	C		ENNSYLVANIA 19406	-1415
DOCKET NUMBER(S)	4. LICENSEE NUMBER(S)		5. DATE(S) OF INSPECT	ION
30-01317	08-017	38-02	12/12/15/0	\mathcal{I}
ICENSEE:			10/12/14	
he inspection was an examination of the ac	tivities conducted under your lice	ense as they relate to radiation	safety and to compliance wit	in the
luclear Regulatory Commission (NRC) rules f procedures and representative records, int	and regulations and the condition terviews with personnel, and obs	ons of your license. The inspe- ervations by the inspector. Th	ction consisted of selective e e inspection findings are as f	xaminations oliows:
1. Based on the inspection findings,				
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2. Previous violation(s) closed.				
3. The violation(s), specifically description on repetitive, and corrective action v	ibed to you by the inspector as no was or is being taken, and the rem	n-cited violations, are not being naining criteria in the NRC Enfor	cited because they were self reement Policy. NUREG-1600	-identified
exercise discretion, were satisfied.		•		• =
Non-Cited Violation(s) was/were discussed involving t	the following requirement(s) and	Corrective Action(s):	
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Licensee's hereby state that, within 30 days, the actions is made in accordance with the state of the state of the state in accordance with the state of the state in accordance with the state of the state in accordance with the state in accordance	LATION, which may be subject to s) Statement of Correct described by me to the inspector the requirements of 10 CFR 2.201	Posting in accordance with 10 ive Actions for item 4 will be taken to correct the viola I (corrective steps already take	CFR 19.11. I, above. Nitions identified. This statemen, corrective steps which will b	nt of
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Licensee's Licensee that, within 30 days, the actions is made in accordance with tate when full compliance will be achieved). I use the second sec	LATION, which may be subject to s) Statement of Correct described by me to the inspector the requirements of 10 CFR 2.201 understand that no further written	ive Actions for item 4 ive actions for item 4 will be taken to correct the viola i (corrective steps already take response to NRC will be require	CFR 19.11. I, above. Itions identified. This stateme n, corrective steps which will it ed, unless specifically request	nt of be taken, ed.

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UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PENNSYLVANIA 19406-1415



May 24, 2004

Docket No. 03001317 Control No. 135047 License No.

08-01738-02

Colonel Thomas M. Fitzpatrick, MC Deputy Commander for Clinical Services Department of the Army Walter Reed Army Medical Center (WRAMC) ATTN: Commanding Officer 6900 Georgia Avenue, N.W. Washington, DC 20307-5001

SUBJECT: DEPARTMENT OF THE ARMY, ACKNOWLEDGMENT OF TIMELY RECEIPT OF RENEWAL APPLICATION, CONTROL NO. 135047

Dear Colonel Fitzpatrick:

This is to acknowledge receipt of your application for renewal of the materials license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified above.

Sincerely,

Sheryl Villar, Team Leader Licensing Assistance Team Division of Nuclear Materials Safety

cc: LTC John Mercier, Ph.D., Radiation Safety Officer

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DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVE NW WASHINGTON DC 20307-5001



January 23, 2003

Executive Office

U.S. Nuclear Regulatory Commission Region I 475 Allendale Road King of Prussia, PA 19406-1415

Dear Sir or Madam:

The Statement of Intent and Decommissioning Funding Plan to provide funds for the eventual decommissioning of Walter Reed Army Medical Center's Nuclear Regulatory Commission Licenses are provided as enclosures 1 and 2, respectively.

Sincerely,

2 Enclosures

Erik J. Glover Major, US Army Executive Officer

Copy Furnished: Headquarters, U.S. Army Medical Command, ATTN: POPM-SA (COL Eric Daxon)







ATTENTION OF: Office of the Commanding General

JAN 2 3 2003

STATEMENT OF INTENT

1. I, the Commander of the North Atlantic Regional Medical Command, am the official, duly appointed by Headquarters, Department of the Army, to represent my organization.

2. I submit this Statement of Intent for the following Nuclear Regulatory Commission Licenses:

a. License Number 08-01738-02, expiration date 30 June 2004.

b. License Number 08-01738-03, expiration date 30 November 2011.

3. The facilities included under this Statement of Intent are:

a. Walter Reed Army Medical Center, Washington, District of Columbia.

b. Armed Forces Institute of Pathology, Washington, District of Columbia.

c. Walter Reed Army Medical Center, Forest Glen Section and Annex, Silver Spring, Maryland.

d. Walter Reed Army Institute of Research, Forest Glen Section and Annex, Silver Spring, Maryland.

e. Walter Reed Army Medical Center, Department of Pathology U.S. Army Medical Laboratory, Fort Meade, Maryland.

f. Walter Reed Army Institute of Research, Gillette Building, 270 Research Center, 1413 Research Blvd., Rockville, MD.

g. Walter Reed Army Institute of Research, Rickman Building, 13 Taft Court, Rockville, Maryland.

4. Based upon our Decommissioning Funding Plan, Compiled IAW Nuclear Regulatory Commission guidance, we currently estimate our total decommissioning cost to be \$12,266,500.





REPLY TO ATTENTION OF: MCHL-HP

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER

1. Basic Assumptions.

a. References:

(1) Nuclear Regulatory Commission Guide 3.66, 1 June 1990, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72.

(2) NUREG/CR-1754, 1 February 1981, "Technology, Safety, and Costs of Decommissioning Reference Non-Fuel Cycle Nuclear Facilities".

(3) NUREG-1727, September 2000, "NMSS Decommissioning Standard Review Plan".

b. Reference 2 provides an example of a reference facility that is a suitable model for WRAMC and WRAIR:

(1) The facility includes 5 work areas and includes an animal lab, radioisotope room, equipment room, counting room, and office. The area also includes rest rooms and hallways.

(2) The example determined estimated manpower requirements and costs for decommissioning this reference facility.

c. We used the referenced facility as a model and followed the approach in Reference 2 with the following adjustments to account for WRAMC and WRAIR's actual situation:

(1) We expanded the floor space by a factor of 100 to account for the actual dimensions of all WRAMC and WRAIR labs and use areas.

(2) We adjusted the costs using 2003 dollars, to include overhead, and waste costs provided by the AMC radioactive waste disposal office.

2. Cost Estimate.





ATTENTION OF: Office of the Commanding General

JAN 2 3 2003

STATEMENT OF INTENT

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c. Walter Reed Army Medical Center, Forest Glen Section and Annex, Silver Spring, Maryland.

d. Walter Reed Army Institute of Research, Forest Glen Section and Annex, Silver Spring, Maryland.

e. Walter Reed Army Medical Center, Department of Pathology U.S. Army Medical Laboratory, Fort Meade, Maryland.

f. Walter Reed Army Institute of Research, Gillette Building, 270 Research Center, 1413 Research Blvd., Rockville, MD.

g. Walter Reed Army Institute of Research, Rickman Building, 13 Taft Court, Rockville, Maryland.

4. Based upon our Decommissioning Funding Plan, Compiled IAW Nuclear Regulatory Commission guidance, we currently estimate our total decommissioning cost to be \$12,266,500.

5. As Commanding General of the North Atlantic Regional Medical Command and designated licensee of our NRC licenses, I am providing this written assurance that sufficient funds for decommissioning will be secured when necessary for the eventual decommissioning of our licenses.

KEVIN C. KILEY Major General, US Army Commanding

2





REPLY TO ATTENTION OF: MCHL-HP

DECOMMISSIONING FUNDING PLAN WALTER REED ARMY MEDICAL CENTER

1. Basic Assumptions.

a. References:

(1) Nuclear Regulatory Commission Guide 3.66, 1 June 1990, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72.

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(1) The facility includes 5 work areas and includes an animal lab, radioisotope room, equipment room, counting room, and office. The area also includes rest rooms and hallways.

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c. We used the referenced facility as a model and followed the approach in Reference 2 with the following adjustments to account for WRAMC and WRAIR's actual situation:

(1) We expanded the floor space by a factor of 100 to account for the actual dimensions of all WRAMC and WRAIR labs and use areas.

(2) We adjusted the costs using 2003 dollars, to include overhead, and waste costs provided by the AMC radioactive waste disposal office.

2. Cost Estimate.

a. Planning and preparation of the facility and site for decommissioning. This includes 7,000 person-days in preparing documentation, performing radiological surveys, and work plan documentation: \$2,245,500

b. Decontamination and dismantling of radioactive facility components: This includes a total of 15,400 person-days of work in decontaminating fume hoods, lab benches, sink and drain lines, ductwork, other components, ceilings, walls, and floors: \$5,988,000

c.	Final survey (3,600 person-days):	\$974,400
d.	25 % Cost contingency (mandatory):	\$2,302,000

e. Waste disposal: We assumed all major equipment would be decontaminated rather than shipped as waste and all decontamination liquids would be low enough in activity to allow discharge in the sanitary sewer. Using recent experience decommissioning our largest facility and only generating 11 drums of waste for burial, we modified the waste disposal assumptions. Assuming 50 drums (55 gallons each) of trash would be shipped as one truckload, the transportation costs would be \$1550. Container costs equal \$3750. Burial costs equal \$150,000 (\$400 per cubic foot or \$3,000 per drum). The three irradiators we possess would be \$150,000 each to ship as waste.

Total waste cost:	\$605,300
f. 25 % Waste Contingency:	\$151,300
TOTAL COST FOR DECOMMISSIONING WRAMC AND WRAIR:	\$12,266,500

3. The method of assuring funds for decommissioning is by providing a Statement of Intent in accordance with 10 CFR 30.35 (f) (4).

4. Adjusting cost estimates and associated funding levels will be by reanalysis upon occasion of each broad scope license renewal.

JOHN R. MERCIER, Ph.D. LTC, MS Chief, Health Physics WRAMC



DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER 6900 GEORGIA AVE NW WASHINGTON DC 20307-5001

REPLY TO ATTENTION OF: Office of the Deputy Commander for Clinical Services

U.S. Nuclear Regulatory Commission Region I ATTN: Nuclear Materials Safety Branch 475 Allendale Road King of Prussia, PA 19406-1415

Dear Sir or Madam:

Enclosed is the Walter Reed Army Medical Center NRC broad scope license 10-year renewal application (Form 313 with attachments). Our current license, No. 08-01738-02, is set to expire on 30 June 2004. Hence, this application is hereby rendered within the 30-day timeliness rule.

Please note that the renewal application for the broad scope license includes provisions to absorb our irradiator license, No. 08-01738-03. Our intent is to consolidate both licenses.

Your point of contact for this Command is Lieutenant Colonel John Mercier, Ph.D., (202) 356-0058.

Sincerely,

Thomas M. Fitzpatrick Colonel, Medical Corps Deputy Commander for Clinical Services

Enclosure

Copy Furnished: Headquarters, US Army Medical Command, ATTN: POPM-SA, Fort Sam Houston, TX 78234.

NRC FORM 313 U.S. NUCLEAR REGULATORY COMMISSION (4-2004)	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/200 Estimated burden per response to comply with this mandatory collection request: hours. Submittal of the application is necessary to determine that the applicant is				
10 CFR 30, 32, 33, 34, 35, 36, 39, and 40	qualitied and that adequate procedures exist to protect the public health and safety				
APPLICATION FOR MATERIAL LICENSE	Seria comments regarding ourgen estimate to the Records and FOIAPrivacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office o Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not divide a currently valid OMP control without the NEO				
	conduct or sponsor, and a person is not required to respond to, the information collection.				
SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO T	IDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. THE NRC OFFICE SPECIFIED BELOW.				
APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:	IF YOU ARE LOCATED IN				
DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS U.S. NUCLEAR REGULATORY COMMISSION	ILLINOIS, INDIANA, IOWA, MCHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:				
WASHINGTON, DC 20555-0001	MATERIALS LICENSING ØRANCH U.S. NUCLEAR REGULATORY COMMISSION, REGION III 2442 WARPERNIULE FOOD SITE 210				
ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:	2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352				
IF YOU ARE LOCATED IN:					
ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:	ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADQ, HAWAH, IDAHD, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:				
LICENSING ASSISTANCE TEAM	NUCLEAR MATERIALS LICENSING BRANCH				
DIVISION OF NUCLEAR MATERIALS SAFETY U.S. NUCLEAR REGULATORY COMMISSION, REGION 1 475 ALLENDALE ROAD	U.S. NUCLEAR REGULATORY COMMISSION, REGION IV 611 RYAN PLAZA DRIVE, SUITE 400				
475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415	ARLINGTON, TX 76011-4005				
PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR					
MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICT	IONS.				
1. THIS IS AN APPLICATION FOR (Check appropriate item)	2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)				
A. NEW LICENSE	Department of The Army Walter Reed Army Medical Center				
B. AMENDMENT TO LICENSE NUMBER	Attn: Commanding Officer				
C. RENEWAL OF LICENSE NUMBER 08-01738-02	6900 Georgia Ave., NW Washington, DC 20307-5001				
3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED	4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION				
SEE ITEM #3 ATTACHMENT	LTC John Mercier, Ph,D., RSO				
1	TELEPHONE NUMBER				
	(202) 356-0058				
SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMAT	ION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUDE.				
 RADIOACTIVE MATERIAL Element and mass number; b. chemical and/or physical form; and c. maiximum amount which will be possessed at any one time. 	6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.				
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.	8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.				
	10. RADIATION SAFETY PROGRAM.				
	12. LICENSE FEES (See 10 CFR 170 and Section 170.31) DCFR 170 (A)(5) FEE CATEGORY 7B AMOUNT ENCLOSED \$ EXEMPT				
13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.					
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF TH CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 33 CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.	5, 36, 39, AND 40, AND THAT ALL INFORMATION CONTANED HEREIN IS TRUE AND				
WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIM ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS	AINAL OFFENSE TO MAKE A WILLFUILLY FALSE STATEMENT OR REPRESENTATION TO				
	Ham to topatrul DATE Zi may oy				
FOR NRC L	JSE ONLY				
APPROVED BY DATE					

NRC FORM 591X PART 1 (5-2002)			U.S. NUCLEAR RE	GULATORY COMMISS
10 CFR 2.201 SAFETY IN	SPECTION REPOR	T AND COMPLIA		ΓΙΟΝ
1. LICENSEE/LOCATION INSPECTED:	<u> </u>	2. NRC/REGIONAL OFFICE		
Department of the Army				
Walter Reed Army Medical C	enter	Region I		
Washington, D.C. 20307-5001		475 Allendale R	load	
		King of Prussia,		5
REPORT NUMBER(S) 02-001				MOTION
3. DOCKET NUMBER(S)	4. LICENSEE/CERTIFICAT		5. DATE(S) OF INSP	
030-01317, 030		30-06895	July 16-	19,2002
6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS A	REAS	,	
87119/2800-032	2.01, 2.02, 2.03(a,b,c,d), 2.04, 2.05, 2.06(a,t	b), 2.07(a,b,c), 2.08(a,b,c,d), 2.09(a,b,c,d), 2.10(a,b,c,d)	e). 211((a.b,c,d), 212(a,b,c,d,e,f), 213, 21	4, 2, 15, 2, 16, 2, 17, 2, 18, 2, 19, 2, 202, 21
LICENSEE/CERTIFICATE HOLDER				
 examinations of procedures and representations 1. Based on the inspection finding 2. Previous violation(s) closed. 3. The violation(s), specifically dea non-repetitive, and corrective a exercise discretion, were satisfi	s, no violations were identified scribed to you by the inspector ction was or is being taken, and ied. (s) were discussed involving the your activities, as described be	as non-cited violations, are I the remaining criteria in the e following requirement(s):	not being cited becaus NRC Enforcement Po n violation of NRC req	e they were self-identifie blicy, NUREG-1600, to uirements and are being
	STATEMENT OF CO	RRECTIVE ACTIONS	5	
	described by me to the inspec	tor will be taken to correct th	ne violations identified. Iv taken, corrective ste	ps which will be taken, d
orrective actions is made in accordance with	the requirements of 10 CFR 2.			
corrective actions is made in accordance with when full compliance will be achieved). I under	the requirements of 10 CFR 2. Instand that no further written re	sponse to NRC will be requ	ired, unless specifically NATURE	
orrective actions is made in accordance with when full compliance will be achieved). I under TITLE PR	rstand that no further written re	sponse to NRC will be requ		v requested.
hereby state that, within 30 days, the actions corrective actions is made in accordance with when full compliance will be achieved). I unde TITLE PR LICENSEE NRC INSPECTOR TEBESA HAL	INTED NAME	sponse to NRC will be requ		



DEPARTMENT OF THE ARMY WALTER REED ARMY MEDICAL CENTER WALTER REED HEALTH CARE SYSTEM WASHINGTON, DC 20307-5001

April 12, 2001

Preventive Medicine Service

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Allendale Road King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

Walter Reed Army Medical Center uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of June 30, 2004.

We request to amend NRC License 08-1738-02 to increase the maximum possession limit of ¹⁹²Ir in section 8H to 6 curies. This increase in the maximum possession limit is to allow for the addition of Intravascular Brachytherapy procedures. The procedures will initially utilize the Cordis Checkmate system. Standard Operating Procedures will be developed and approved by the Radiation Control Committee prior to implementation of this procedure.

We also request to amend NRC License 08-1738-02 to increase the maximum possession limit 153 Gd in section 8P to 2 curies per camera. This will allow for additional cameras in Nuclear Medicine.

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

(Johnson

Colonel, U.S. Army Radiation Protection Officer

Copy Furnish:

Director, Proponency Office for Preventive Medicine - San Antonio, ATTN: MCPO-SA (COL Daxon), 2050 Worth Road, Ft. Sam Houston, TX 78234-6000

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* *	SCLEAR REGULARD **
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UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415

	Septer	mber	7,2	2000
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License No. 08-01738-02

Control No. 128416 29. Sep (1) Colonel Michael K. Dun Commander Department of The Army Walter Reed Army Medical Center Washington, DC 20307-5001

SUBJECT: DEPARTMENT OF THE ARMY, ISSUANCE OF LICENSE AMENDMENT, **CONTROL NO. 128416**

Dear Colonel Dunn:

Docket No. 03001317

This refers to your license amendment request dated July 12, 2000. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

neelan Bhalla

Neelam Bhalla Health Physicist Nuclear Materials Safety Branch 1 **Division of Nuclear Materials Safety**

Enclosure: Amendment No. 72

CC: Colonel William B. Johnson, Radiation Safety Officer Col. Eric Daxon, USACHPPM, 2050 Worth Road, Room 115 Fort Sam Houston, Texas 78234-6010

NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 6 PAC Amendment No. 72

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Cor of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representation heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduc source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; t deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to al applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

	Licensee			In accordance w	ith t	he letter dated
				July 31, 2000,		
	Department of the Army			3. License number	08-0	01738-02 is amended in
	Walter Reed Army Medical Cent	er (WF	RAMC)	its entirety to rea	d as	s follows:
2.				4. Expiration date J	une	30, 2004
1	Washington, D.C. 20307-5001			5. Docket No. 030-	013	17
				Reference No.	jer Ser al	
	(? <u>*</u>		<u> </u>	a start and a st		
6.	Byproduct, source, and/or special nuclear material	7.	Chemical and/or	physical form	8.	Maximum amount that licensee may possess at any one time under this license
A.	Any byproduct material with atomic numbers 1-83	A .	Any		Α.	400 millicuries of each radionuclide with a total possession limit of 26 curies
B	lodine 131	В.	Any		B.	2 curies
C.	Xenon 133	, C.	Any		C.	2 curies
D.	Krypton 85	D.	Any	19 an	D.	1 curie
E.	Phosphorus 32	Ε.	Any		E.	2 curies
F.	Carbon 14	F.	Any		F.	2 curies
G.	lodine 125	G.	Any		G.	1 curie
H.	Iridium 192	H.	Any		H.	1 curie
J.	Chromium 51	Ł	Any		<u>}.</u>	750 millicuries
J.	Sulfur 35	J.	Any		J.	1 curie
K.	Hydrogen 3	К.	Any		K.	5 curies
Ł,	Molybdenum 99	L.	Molybdenum 99 Technetium 99			23 curies
M.	Technetium 99m	M.	Any		M.	23 curies

NRC FORM 374A U.S. NUCLEAR		R REGULATORY COMMISSION PAGE 2 of 6				
•			License Number 08-01738-02			
	MATERIALS LIC		Docket or Reference 030-01317	e Number	·	
			Amendment N	10. 72		
6. Byproduct, sc nuclear mater	purce, and/or special rial	7. Chemical and/or physic	at form 8	 Maximum amount that licensee may possess at any one time under this license 	,	
N. Strontium 9	90	N. Sealed sources		N. 500 millicuries	· · · ·]]	
O, Cesium 13	7	O. Sealed sources (3M 6D6C-CA)	ر» ایر آمین	D. 2 curies		
P. Gadolinium	า 153	P. Sealed sources	F	P. 2 curies		
Q. lodine 125		Q. Sealed sources (3M Company seed		2. 1 curie		
R. lodine 125		R. Sealed sources ((Norland Inst. Co., 178A591A or AECL C235 or C324, or A Corp. Model IMC.P2	Model Models mersham	R/4 sources, not to exceed 300 millicuries each		
S. Cesium 13	7	S. Sealed sources		5. 1.2 curies		
T. Cobalt 60		T. Sealed sources	م الم الم الم الم الم الم الم الم الم ال	500 millicuries		
U. Americium	241	U. Any		J. 100 microcuries		
V. Americium	241	V. Sealed sources (Monsanto Model N		/. 20.5 curies		
W. Nickel 63		W. Sealed sources and	t foils V	V. 1 curie		
X. Iodine 129		X. Sealed sources	>	K. 1 curie		
Y. Thorium		Y. Any	٢	 5 kilograms 		
Z. Uranium		Z. Any	Z	. 50 kilograms		
AA. Cesium	137	AA. Sealed sources (3M 6D6C-CA)	۵	A. 50 millicuries		
BB. Americiu	ım 241	BB. Sealed sources	E	B. 200 millicuries		
CC. Paladium	n 103	CC. Sealed sources	C	C. 3 curies		
DD. Uranium 235	depleted in Uranium	DD. Plated Metal	C	DD. 400 Kilograms		

NR	C FORM	374A U.S. NUCLEAR REGULATORY COMMISSION	PAGE 3 of 6 PAGES				
	•		License Number 08-01738-02				
	MATERIALS LICENSE SUPPLEMENTARY SHEET		Docket or Reference Number 030-01317				
			Amendment No. 72				
-							
9.	Autho	rized use:					
∘A.∘t	hrough	Food and Drug Administration (FDA) re-	h in humans in accordance with any applicable quirements. Research and development as al studies; instrument calibration; student				
DD	. Shield	ling in linear accelerators.					
		CONDITION					
10.	10. Licensed material may be used only at the licensee's facilities located at the Walter Reed Army Medical Center, Washington, D. C.; WRAMC Forest Glen Section and Annex, Silver Spring, Maryland; U.S. Army Medical Laboratory, WRAMC Department of Pathology, Fort Meade, Maryland; Rickman Building, 13 Taft Court, Rockville, Maryland and Gillette Building, 270 Research Center, 1413 Research Boulevard, Rockville, Maryland.						
11.	th	icensed material shall be used by, or under the sup ne Radiation Safety Committee, Colonel Dale K. Bic he use of licensed material in or on humans shall b	ck, Chairperson.				
		10 CFR 35.2.					
	, tra	hysicians, dentists, or podiatrists designated to use aining criteria established in 10 CFR 35, Subpart J censee's Radiation Safety Committee.					
	D. T	he Radiation Safety Officer for this license is Colon	el William B. Johnson.				
12.	materi	ition to the possession limits in Item 8, the licensee al at a single location to quantities below the limits leration of the need for an emergency plan for resp	specified in 10 CFR 30.72 which require				
13.	35.500 posses criteria	hstanding the requirements of 10 CFR 35.49(a) and 0 the licensee may use for any medical use any byp ss and use byproduct material for medical use in ac a in the other sections of 10 CFR 35. This does not able U.S. Food and Drug Administration (FDA) and	roduct material or reagent kit. The licensee shall cordance with the prescriptive and performance relieve the licensee from complying with				
14.		etector cells containing a titanium tritide foil or a sca onjunction with a properly operating temperature co	- 11				

NRC FORM 374A		W.374A	U.S. NUCLEAR REGULATORY COMMISSION	PAGE 4 of 6 PAGES		
				License Number 08-01738-02		
			MATERIALS LICENSE SUPPLEMENTARY SHEET	Docket or Reference Number 030-01317		
				Amendment No. 72		
			from owners diago that an existent in the portificate of	redistration referred to in 10 CEP 32 210		
			from exceeding that specified in the certificate of			
			n in use, detector cells containing a titanium tritid putside.	le foil or a scandium tritide foil shall be vented to		
	devi	ces c	see shall conduct a physical inventory every three containing licensed material received and possess nd every six months for all other sealed sources a	sed pursuant to 10 CFR 35.59, 35.400 and		
16. A. Sealed sources and detector cells containing licensed material shall be contamination at intervals not to exceed six months or at such other in certificate of registration referred to in 10 CFR 32.210, not to exceed the		amination at intervals not to exceed six months of	r at such other intervals as are specified by the			
B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles be tested for leakage and/or contamination at intervals not to exceed three months.						
	C.	mon	e absence of a certificate from a transferor indica ths prior to the transfer, a sealed source or detect ut into use until tested.			
1			n sealed source fabricated by the licensee shall b age, and contamination prior to any use or transfe			
!	E.	Seal	ed sources and detector cells need not be leak te	ested if:		
		(i)	they contain only hydrogen-3; or			
		(ii)	they contain only a radioactive gas; or			
		(iii)	the half-life of the isotope is 30 days or less; or			
		(iv)	they contain not more than 100 microcuries of be than 10 microcuries of alpha emitting material; o	· ·		
		(v)	they are not designed to emit alpha particles, are when they are removed from storage for use or to tested within the required leak test interval, they sealed source or detector cell shall be stored for tested for leakage and/or contamination.	transfer to another person, and have not been shall be tested before use or transfer. No		
	F.	The	test shall be capable of detecting the presence of	f 0.005 microcurie of radioactive material on the		

NRC FORM 374A		U.S. NUCLEAR REGULATORY COMMISSION	PAGE 5 of 6 PAGES License Number 08-01738-02 Docket or Reference Number 030-01317		
		MATERIALS LICENSE SUPPLEMENTARY SHEET			
			Amendment No. 72		
sha imr regu U.S Roa test	Il be filed w nediately fro ulations. T . Nuclear F nd, King of results, ar G. The I tests Com Sealed so from sour	vith the U.S. Nuclear Regulatory Commission an om service and decontaminated, repaired, or dis he report shall be filed within five days of the da	posed of in accordance with Commission te the leak test result is known with the Nuclear Materials Safety Branch, 475 Allendale specify the source or detector cell involved, the s for analysis by the licensee. Alternatively, med by persons specifically licensed by the services.		
	Sulfur 35, provided: A. Wast	Cobalt 58, Iridium 192, Scandium 46, for decay e to be disposed of in this manner shall be held re disposal as ordinary trash, the waste shall be	-in-storage before disposal in ordinary trash, for decay a minimum of ten half-lives.		
	deter	opriate survey instrument set on its most sensitive mine that its radioactivity cannot be distinguished ved or obliterated.			
	years place the d	ord of each such disposal permitted under this L . The record must include the date of disposal, d in storage, the radionuclides disposed, the sur ose rate measured at the surface of each waste rmed the disposal.	the date on which the byproduct material was vey instrument used, the background dose rate,		
19.		ntal animals, or the products from experimental a shall not be used for human consumption.	animals, that have been administered licensed		
20.	The licensee shall possess and use byproduct material for human research in accordance with the prescriptive and performance criteria in all sections of 10 CFR Part 35 except sections 35.49(a) and (b), 35.100, 35.200, and 35.300.				
21.		ee is authorized to transport licensed material in aging and Transportation of Radioactive Material			

NRC FORM 374A U.S. NUCLEAR REGULATORY COMMISSION PAGE 6 of 6 PAGE					
		License Number 08-01738-02			
	ATERIALS LICENSE	Docket or Reference Number 030-01317			
		Amendment No. 72			
has been registe		aled source or device unless the source or device Commission pursuant to 10 CFR 32.210 or			
procedures inclu	te generated shall be stored in accorda ded with the waste storage plan descri 93 and October 29, 1993.	ance with the statements, representations, and bed in the licensee's letter/application dated			
24. Notwithstanding the requirements of 10 CFR 35.315(a)(7), the licensee may control contamination in rooms used to house radiopharmaceutical therapy patients in accordance with the commitments and procedures contained in the letters dated April 8, 1992 and November 24, 1992.					
 25. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations. A. Application dated January 21, 1993 B. Letter dated September 9, 1993 C. Letter dated October 29, 1993 D. Letter dated December 9, 1993 E. Letter dated February 15, 1994 F. Letter dated June 2, 1994 G. Letter dated December 6, 1996 					
	For the L	J.S. Nuclear Regulatory Commission			
Date <u>September 7</u>	Ni Di Re	Velam Bhalla eelam Bhalla uclear Materials Safety Branch 1 ivision of Nuclear Materials Safety egion I ng of Prussia, Pennsylvania 19406 36948925			



Docket No.

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415

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License No. 08

08-01738-02

Colonel Michael A. Dunn Commander Walter Reed Army Medical Center Washington, DC 20307-5001

03001317

SUBJECT: INSPECTION 03001317/2000001, WALTER REED ARMY MEDICAL CENTER, WASHINGTON, D.C.

Dear Colonel Dunn:

On July 11-13, 2000, Ms. Neelam Bhalla of this office conducted a safety inspection at the above address and facilities located at the Forest Glen Section and Annex, Silver Spring, Maryland, of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. The findings of the inspection were discussed with you and members of your organization at the conclusion of the inspection.

Additional information provided in the telephone conversation on August 4, 2000 between Colonel Johnson and David Burton of your organization, staff from the Army Center for Health Promotion and Preventive Medicine (CHPPM), and Ms. Marie Miller, Mr. Tom Thompson and Ms. Bhalla of this office was also examined as part of the inspection. The telephone conversation was in regard to the decommissioning of Buildings 500 and 506, located in the Forest Glen Section, Silver Spring, Maryland. The decommissioning of the buildings was performed by CHPPM in June 1999. Based on a review of your decommissioning records, Buildings 500 and 506 were released in accordance with the applicable regulatory requirements. Please note that all decommissioning records are required to be maintained until your license is terminated.

Within the scope of this inspection, no violations were identified.

In accordance with 10 CFR 2.790, a copy of this letter will be placed in the NRC Public Document Room and will be accessible from the NRC Web site at <u>http://www.nrc.gov/NRC/ADAMS/index.html.</u> No reply to this letter is required.

2
Sincerely,
Original signed by Mohamed M. Shanbaky
Mohamed M. Shanbaky, Chief Nuclear Materials Safety Branch 1 Division of Nuclear Materials Safety

CC:

Colonel William B. Johnson, Ph.D., Radiation Safety Officer District of Columbia State of Maryland



July 12, 2000

Preventive Medicine Service

Nuclear Regulatory Commission, Region I Medical Licensing Division 475 Alendale Road King of Prussia, Pennsylvania 19406-1415

Dear Sir or Madam:

Walter Reed Army Medical Center (WRAMC) uses radioactive material authorized by U.S. Nuclear Regulatory Commission (NRC) Byproduct Material License number 08-01738-02 with an expiration date of June 30, 2004.

We request to amend NRC license 08-01738-02 issued to WRAMC to appoint Colonel Dale K. Block to replace Colonel Yancy Phillips as the Chairperson of the Radiation Control Committee (RCC). Colonel Block will be the Deputy Director for Clinical Services which is a senior level executive management position, one level below the Hospital Commander. The Radiation Protection Officer, Colonel William B. Johnson, has carefully reviewed the Colonel Block's curriculum vitae (enclosure 1) and recommends approval as Chairperson of the RCC.

We request to amend NRC license 08-01738-02 issued to WRAMC to delete the Cs-137 sealed source irradiator line items 6CC, 7CC, and 8CC from the license. The irradiator was transferred to J.L. Shepard & Associates and removed from building 516, Forest Glen Section on March 29, 2000 (enclosure 2).

For any additional information, please contact the undersigned at (202) 356-0058.

Sincerely,

William B. Johnson Colonel, U.S. Army Radiation Protection Officer

Copy Furnished: Proponency Office for Preventive Medicine, ATTN: COL Eric Daxon, USACHPPM, 2050 Worth Road, Room 115, Ft. Sam Houston, Texas 78234-6010

2 Enclosures

CURRICULUM VITAE

DALE K. BLOCK Colonel, Medical Corps, United States Army

PERSONAL/FAMILY DATA:

Born: 21 September 1944, Brooklyn, New York Wife: Sandra Gayle (Evans) Block Children: Kristen L., 1968-1984 Josey S., 1974 Steven E., 1977

CIVILIAN EDUCATION:

PROFESSIONAL EDUCATION:

MILITARY EDUCATION:

ASSIGNMENTS:

B.A., George Washington University, Washington, DC, 1966 M.D., La Universidad Autonoma of Guadalajara, Guadalajara, Jalisco, Mexico, 1971

Internship: Rotating, Dalhousie University Medical Center, Halifax, Nova Scotia, Canada, 1971-1972 Residency: Internal Medicine, Dalhousie University Medical Center, Halifax, Nova Scotia, Canada, 1971-1974 Internal Medicine, Tripler Army Medical Center, Honolulu, Hawaii, 1979-1980 Fellowship: Gastroenterology, William Beaumont Army Medical Center, El Paso, Texas, 1980-1982

Army Medical Department Basic Course, 1976 Army Medical Department Advanced Course, 1978 Command and General Staff College, 1986

OIC, USAHC, Fort Detrick, Frederick, MD 1974-1978 Staff Gastroenterologist, USAMEDDAC, Fort Bragg, NC, 1982-1984

Chief, Department of Medicine USAMEDDAC, Fort Bragg, NC, 1984-1986 Deputy Commander for Clinical Services, Director of Medical Education, USAMEDDAC, Fort Bragg, NC, 1986-1988 Chief, Personal Readiness Division, Directorate of Professional Services; Consultant to The Surgeon General for Fitness Policy and Consultant to The Surgeon General for Alcohol and Drug Abuse, Department of Army, Falls Church, CA, 1988-1990 Commander, USAMEDDAC, Fort George G. Meade, MD 1990-1991

Deputy Director for Quality Assurance, Office of the Assistant Secretary of Defense of Health Affairs (Professional Affairs and Quality Assurance) Washington, DC 20301-1200, 1991-1992 Deputy Director for Professional Affairs, (Professional Affairs and Quality Assurance) Washington, DC 20301-1200, 1992-1994 Staff Physician, Dewitt Army Community Hospital, Fort Belvoir, VA 22060, July-September 1994

Commander, ADUSAHC Pentagon, Washington, DC 20310-5801 and Chief, Department of Primary Care and Community Medicine, Walter Reed Army Medical Center, Washington, DC 20307 1994-Present

Clinical Instructor, School of Mcdicinc, University of Hawaii, Honolulu, Hawaii, 1978-1980

Adjunct Professor, School of Pharmacy, University of the Pacific, Stockton, California, 1978-1980

Associate Professor of Medicine, Faculty of Medicine, Texas Tech University, Lubbock, TX, 1980-1982

Assistant Professor of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, 1997-Present

General Practice, Ciudad Granja, Zapopan, Jalisco, Mexico, 1972-1973

Washington, DC, 1975-Present

American Board of Family Practice, 1978 American Board of Internal Medicine, 1981

"Un Estudio Epidemiologico de Ciudad Granja, Zapopan, Jalisco, Mexico" Doctoral Thesis, 1973 "Singultus and the Mallory-Weiss Syndrome" Case Studies and Review of the Literature

ACADEMIC/ PROFESSIONAL APPOINTMENTS:

1

CLINICAL EXPERIENCE:

LICENSURE:

BOARD CERTIFICATION:

PUBLICATIONS:

-IEPHERD & ASSOCIATES 1010 Arroyo ave, San Fernando, California 91340-1822

818-898-2361 FAX 818-361-8095

CERTIFICATION OF SOURCE/DEVICE POSSESSION TRANSFER

This document is to certify that on or about March 30, 2000, J.L. Shepherd and Associates took possession of and title to (1) Each Eberline Instrument Corporation Model 8150-XXXAB, with approximately 120 Curies of Cesium-137(as of 1967), American Nuclear Type ANC 127 Source Capsule, from U.S. Army, Walter Reed Army Institute of Research. WRAMC. Basement of the Reactor Building, Forest Glen, MD 20907.

This transfer preparation took place under the direct supervision of J.L. Shepherd and Associates' engineer, under JLS&A'S State of California Radioactive Materials License and applicable 49CFR and CA Title 17 Transportation requirements, working under J.L. shepherd and Associates, State of California Radioactive Materials License 1777-19, Amendment 78, Expiration Date 10/11/95, with State of California issued Letter of Timely Renewal, Dated September 21, 1995, in accordance with 10CFR40.51, 49CFR, all regulatory agency licensing and transportation requirements. J.L. Shepherd and Associates per the attached license, or our designated hot cell facility, is licensed to receive, possess and store this source/device.

U.S. Army, Walter Reed Army Institute of Research

Dated: 29 Man 2006

Mary Shepherd Vice-President J.L. Shepherd and Associates

Dated: 3/15/00