

DEPARTMENT OF RADIOLOGY Henry Ford Hospital & Health Network

Radiation Safety Office

May 2, 2012

Henry Ford Hospital 2799 West Grand Blvd. Detroit, Michigan 48202-2689 (313) 916-7042 Office (313) 916-7329 Fax

Materials Licensing Branch U.S. Nuclear Regulatory Commission, Region III 801 Warrenville Rd. Lisle, IL 60532-4351 (630) 829-9842 Voice (630) 515-1259 FAX

Dear Sir or Madam:

We terminated licensed activities at Henry Ford Macomb Warren Hospital (NRC License No. 21-04082-01) on March 30, 2012. This letter describes the decommissioning of NRC regulated material at this facility. Therefore we are requesting to terminate this license. NRC Form 314 is attached (Attachment 1).

Please note that this site remains under the control of Henry Ford Health System. A small portion of the hospital remains open as a rehabilitation housing facility. The primary areas of storage and use of licensed radioactive materials have been secured from unauthorized entry. The entire site has a 24 hour security presence. We will continue to maintain records as required by NRC regulations until the license is fully terminated. There are no immediate plans to reoccupy areas where radioactive materials have been used. There are long term plans to repurpose the site for use as a large rehabilitation facility but it will take several months for these plans to be finalized.

Decommissioning Criterion

As a summary, all known licensed radioactive materials have been removed from the site. All signs and labels, excluding those in record books, were removed. The decommissioning efforts evaluated the potential for residual contamination relative to the TEDE of 25 mrem per year to the maximally exposed individual. The *MultiAgency Radiation Survey and Site Investigation Manual* (MARSSIM) methodology is the standard approach for decommissioning. Acceptable license termination screening values of common radionuclides for building surface contamination were published in

the Federal Register on November 18, 1998 (63 FR 64132) and later incorporated into NUREG-1757. In addition, the Health Physics Society created American National Standard Surface and Volume Radioactivity Standards for Clearance (ANSI/HPS N13.12-1999)providing general categories of screening levels for clearance that are more conservative than the NRC values. Based on these documentes and according to our interpretation of NUREG-1757, a "simplified" MARSSIM methodology may be utilized in our case.

It is quite important to note that the entire facility has always kept contamination levels at a very low levels compared with MARSSIM Derived Concentration Guidance Levels (DCGLs) for surface contamination. Indeed, the action level for contamination of 200 dpm/100 cm² is far lower than the ANSI permitted values. Also, cleanliness in a hospital is particularly important so most areas are frequently cleaned which would also mitigate residual contamination levels quite effectively. Licensed radioactive materials were only used in inside the facility, as patients released from regulatory control under 10 CFR §35.75 are exempted from regulatory control and the all of the use was concentrated in Nuclear Medicine and the Nuclear Cardiology areas. Brachytherapy implants were done in the OR but this work utilized sealed sources and there was never a discrepancy in the physical inventory of these sources.

Facility History of Radioactive Material Usage

We investigated the history of radioactive use at Henry Ford Macomb Warren Hospital (HFMWH) through review of records and discussion with the staff. The facility originally opened in 1966. Based on our review there were three known uses: radiopharmaceutical therapy (§35.300 Use of unsealed byproduct material for which a written directive is required.); permanent brachytherapy (§35.400 Use of sources for manual brachytherapy); and Nuclear Medicine diagnosis (§35.100 Use of unsealed byproduct material for uptake, dilution, and excretion studies; and §35.200 Use of unsealed byproduct material for imaging and localization studies).

Permanent Brachytherapy

Permanent brachytherapy use was first approved on March 7, 2002. The only radioisotope ever used for this purpose was I-125. The only use was for permanent prostate brachytherapy implants. These brachytherapy sources were all leak tested prior to shipment to HFMWH and there was never any indication that any of these sources were leaking. A careful physical inventory of the brachytherapy seeds has always been maintained. None of the patients were treated as in-patients. All of the remaining seeds were sent to Advanced Care Medical (NRC license 06-30764-01) on February 14, 2012. Brachytherapy implants were done in the OR but post implant surveys were completed 100% of the time and no seeds were ever missing from the inventory. The receipt and storage location of the seeds was surveyed as described below. We conclude that none of this material remains at HFMWH.

The DCGL for I-125 is 6 * 10⁵ dpm/100 cm². While a contamination survey is really not necessary for the brachytherapy sealed sources, the contamination surveys of the brachytherapy storage locations are shown below (Attachment 2) and quite easily show compliance with the MARSSIM criteria.

Radiopharmaceutical Therapy

The only isotope used for radiopharmaceutical therapy was I-131 which was used for thyroid treatments and the occasional use of I-131 for diagnosis when I-123 faced shortages. Both the thyroid treatment and diagnosis administration were performed in the nuclear medicine radiopharmacy room. In recent years this use was limited to capsules. The last in-patient was treated on October 25, 2010. After this date the patient's room and the waste storage area were decommissioned.

The ANSI DCGL for I-131 is 6×10^4 dpm/100 cm². The contamination surveys of the radioiodine therapy use and storage locations are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

Radionuclides related to Nuclear Medicine for Diagnosis

Sealed Sources Used to Support Diagnosis

Medical imaging used a variety of sealed sources. None of these sealed sources were ever found to be leaking. All of the remaining sealed sources were shipped to Henry Ford Hospital (NRC 21-04109-16) on April 4, 2012. The radioactive material inventory and a physical check of the normal storage locations showed that none of this material was present when the site closed. The areas of use were surveyed as described below.

Based on the isotopes used, the highest category for a DCGL for these surfaces has a surface screening level of 6×10^3 dpm/100 cm². The contamination surveys of the brachytherapy storage locations are shown below and show compliance with this DCGL (Attachment 2).

Unsealed Radioactive Material Used in Imaging

This site always used doses prepared by a commercial pharmacy. The site has typically returned unused and expired doses. Consequently, inventory of the unsealed materials was relatively easy to verify. When the decommissioning process was initiated on April 3, 2012, the only remaining isotope was some Xe-133 which was shipped to Henry Ford Hospital for decay in storage.

Since the radionuclides used for imaging purposes are intended for human use, they are produced in high purity. Also, radionuclides used in diagnosis have relatively short half lives in order to limit dose to patients. The site usage was recently quite low and licensed radioactive materials were only used inside the facility and the use was

concentrated in Nuclear Medicine and the Nuclear Cardiology areas. The following unsealed isotopes were historically used at HFMWH: 1. Tc-99m (but not Mo-99); 2. In-111; 3. TI-201; 4. Xe-133; 5. I-123; and 6. Ga-67. Below is a discussion of the decontamination process for each isotope separately:

Tc-99m Attributes

Tc-99m was the most commonly used material both in frequency and activity at this site. The site has not used Mo-99 generators at this site. Tc-99m has a half life of 6 hours. From a decommissioning standpoint this radioisotope essentially self decommissions in a matter of days. The final status survey measurements were made at a time after all of theTc-99m would be for all practical purposes, absent. While not specifically listed in the ANSI or NRC references it is logical to categorize Tc-99m in the group of radioisotopes with the lowest level of significance (no β and very short half life). Therefore, the DCGL has a surface screening level of 6 * 10⁵ dpm/100 cm². Tc-99m is specifically used for imaging and consequently well suited for detection via surveys (90% of decays have a140 keV photon). The contamination surveys are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

In-111 Attributes

In-111 has a half life of 2.8 days. It should be noted that at the date of this report, this material is for all practical purposes, absent. While not specifically listed in the ANSI or NRC references it is logical to categorize In-111 in the group of radioisotopes with the lowest level of significance. Therefore, the DCGL has a surface screening level of 6 * 10⁵ dpm/100 cm². In-111 is specifically used for imaging (94% of decays have 247 keV photon) and consequently well suited for detection via surveys. The contamination surveys are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

TI-201 Attributes

TI-201 has a half life of 74 hours. It should be noted that at the date of this report, this material is for all practical purposes, absent. While not specifically listed in the ANSI or NRC references it is logical to categorize TI-201 in the group of radioisotopes with the lowest level of significance. Therefore, the DCGL has a surface screening level of 6 * 10⁵ dpm/100 cm². TI-201 is specifically used for imaging (8% of decays have 167 keV photon) and consequently well suited for detection via surveys. The contamination surveys are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

Xe-133 Attributes

Xe-133 has a half life of 5.27 days. Xenon is a noble gas and is not considered to be a contamination risk. All of the Xe-133 waste was shipped to Henry Ford Hospital for decay in storage (Attachment 2).

I-123 Attributes

I-123 has a half life of 13.3 hours. Since this report was done more than 6 days after the last possible use of I-123 on April 4, 2012, this material is for all practical purposes, absent. While not specifically listed in the ANSI or NRC references it is logical to categorize I-123 in the group of radioisotopes with the lowest level of significance. Therefore, the DCGL has a surface screening level of 6 * 10⁵ dpm/100 cm². I-123 is specifically used for imaging and consequently well suited for detection via surveys (83% decays at 159 keV). The contamination surveys are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

Ga-67 Attributes

Ga-67 has a half life of 78 hours. It should be noted that at the date of this report, this material is for all practical purposes, absent. While not specifically listed in the ANSI or NRC references it is logical to categorize Ga-67 in the group of radioisotopes with the lowest level of significance. Therefore, the DCGL has a surface screening level of 6 * 10⁵ dpm/100 cm². Ga-67 is specifically used for imaging (94% of decays have 247 keV photon) and consequently well suited for detection via surveys. The contamination surveys are shown below and easily show compliance with the MARSSIM criteria (Attachment 2).

Radioimmunoassay

The use of Radioimmunoassay (RIA) kits is more difficult to ascertain since RIA kits can be purchased without a radioactive material license. We discussed this matter with the nuclear medicine and a pathology staff member who is the system expert in RIA. According to these individuals there was no known use of RIA or other generally license materials in the clinical laboratories. It is quite important to note that RIA kits contain miniscule amounts of radioactivity and relatively low specific activities. The vast majority of RIA utilizes I-125 which will be rendered non radioactive due to decay in a matter of a couple of years. Even if H-3 based RIA kits were used, these individual kits would contain less radioactivity than allowed by the NRC MARSSIM DCGL a typical100 cm² wipe test sample area $(1.2 * 10^8 dpm)$.

Isotope Summary

I-131 is the radioisotope of greatest potential concern due to the relatively long half life and relatively high radiotoxicity. Consequently, ensuring that the survey methodology is adequate for I-131 is the most important consideration. I-131 is easily detected with any of the survey methods utilized. Certainly the μ R meter is sensitive to the photon emissions of I-131(82% of decays have 364 keV photon). The well counter MDA is below the 200 dpm trigger limit for measurement of the wipe tests. Also, the pancake survey meter has excellent sensitivity to I-131 largely due to the energetic β particle emission (806 keV β max).

Survey Details

Exposure Rate Surveys

The exposure rate surveys were conducted with the Ludium Model 19 "micro-R" meter #196093 (calibrated 8/11/11). None of the surveys found results in excess of the background of 10 μ R/h. While this instrument has showed lower background rates at other locations (10 μ R/h), this background level is clearly appropriate for this specific location.

Area Contamination Survey

Area contamination surveys were conducted using a Ludium Model 3 survey meter #10826 with pancake probe 44-9 #PR107831 calibrated 8/25/11. The background for this instrument was 50 cpm.

The efficiency of detection for the longest lived material, I-131, is expected to be greater 5% for the pancake probe under field conditions (Steinmeyer, *RSO Magazine*, 1996 Personal measurements, etc.).

Wipe Testing

Wipe tests were counted using the following well counter and setup: Captus 3000 Serial Number CNV-520 (calibrated locally using rod sources). "Open window" or "full spectrum" counts were obtained. This machine provides results in dpm. The background of the samples was 393 cpm. This unit only displays numerical results when they exceeded the measurement sensitivity of the unit. The trigger value for this unit is 200 dpm. The wipe tests collected had a minimum wipe area of 100 cm².

Typically MARSSIM surveys utilize statistically based sampling techniques. Due to the low hazard potential, the minimum number of required survey points (14) are required for these areas (MARSSIM Table 5.5). Rather than establishing a grid of all the possible survey locations and using random number generator techniques to determine which areas should be surveyed, over-sampling accomplished via rate-meter based surveys was utilized (see discussion below). To augment the rate meter surveys each location was surveyed with more than 14 survey points. The specific survey information, by location, is described in below (Attachment 2). The single highest result obtained was 65 dpm/100 cm² which is well below the ANSI/MARSSIM criterion.

Survey Sensitivity Analysis

The MARSSIM method appears to strongly favor scalar based surveys partially due to the relative simplicity of the Minimum Detectable Level (MDL) determination. The wipe tests used a scaler type of counting but the other instruments are rate meter units. While not commonly recognized, rate meter based surveys have a demonstrable minimum detectable activity. In a rate-meter scan, MDA equations typically consider that the limiting factor to be the surveyor's ability to analyze the audible signals. For example, NUREG 5849 (CR-5849, ORAU-92/C57 *Manual for Conducting Radiological Surveys in Support of License Termination*) gives the following MDA formula:

MDA = 100R/EA

Where: R is the minimum discernable audible increase in count rate, E is the detector efficiency(cpm/dpm) A is the probe area in sq cm.

NUREG 5849 states "experience has shown that a 25 to 50% increase can be easily identifiable at ambient background levels of several thousand cpm (e.g. a Nal probe) whereas at ambient levels of a few counts per minute (e.g. ZnS) a two to three fold increase is required"

Thus, since the Ludium Model 19 "micro-R" meter is a Nal based unit the minimum field sensitivity of this unit is 22.5 µR/h.

The pancake Geiger surveys, with a background rate of 50 cpm, falls between these two criteria. In fact, a more specific rate meter MDA formula for pancake detectors should be used. For example, Bishop has suggested the following (Paul Frame, Personal Communication):

MDL = 100 B/EA

Where: B is the background count rate.

The assumption is that a doubled background can be detected over a one second period during which the detector is over the source (in other words a GM).

Thus, the MDL

 $MDL = 100 * 50 \text{ cpm} / (0.05 * 15.5 \text{ cm}^2)$

 $MDL = 6,452 \text{ dpm}/100 \text{ cm}^2$

While, the MDA value calculated is relatively high compared with conventional wisdom about the device sensitivity, and what can be achieved with scalar surveys, this value does not properly capture the true power of real-time surveying techniques. Vastly larger survey areas can be efficiently screened using rate meter surveys. Effectively, the entire site can be sampled. This eliminates the need for the complicated statistically based sampling selection techniques contained within the MARSSIM methodology. This feature of complete sampling, coupled with the fact that Nuclear Medicine departments typically do not possess scalar survey equipment, makes rate meter survey equipment the method of choice for decommissioning Nuclear Medicine facilities.

The action level that we used for the area contamination surveys is anything that exceeded the MDL (6452 dpm per100 cm²).

ANSI/HPS N13.12-1999 (*Surface and Volume Radioactivity Standards for Clearance*) indicates that surface screening levels for I-131 is 60,000dpm/100 cm². NUREG 1757 establishes similarly high DCGL values. In fact, all of the DCGL values for any unsealed material used in the Nuclear Medicine unit are extremely high compared with the contamination limits in place for daily work. Regardless, based on the calculations above, it is clear that contamination surveys performed with a pancake survey meter demonstrate compliance with the DCGL levels and are sufficiently below those values to also meet ALARA considerations. Similarly substantially high values would be generated for commonly used imaging compounds if these nuclides could be present.

Survey Locations

A diagram of the closeout surveys conducted on April 3rd and 4th 2012 is included (Attachment 2). The diagram specifies the location of the wipe tests. The exposure rate and area contamination surveys cover the entire area of these locations. The focus of the surveys was in the nuclear cardiology area, the radiopharmacy room, the two camera rooms (Vertex and Forte) the hallway area outside of the nuclear medicine areas which also contains the Xe-133 trap and the well and probe counter. Roughly 32 man-hours of time were devoted to the on-site portion of the decommissioning (this does not include the time for planning and subsequent documentation). The survey was conducted by a registered Nuclear Medicine technologist and a certified Health Physicist. Each of these individuals has more than 20 years of experience using radiation survey equipment.

No. 1080 P. 10

Survey Results Summary

No results were found above the actions levels. Effectively, the survey team surveyed all of the possible previous locations of use rather than a statistical sample. We do not believe that bias can affect a choice of survey locations when the entire area is sampled in such a complete manner. This is precisely where rate-meter based surveys are particularly powerful. Real-time measurements of extremely large areas can be easily conducted. No contaminated items or area were found in the rooms or the immediately adjacent areas. All of the room surfaces were surveyed. All of the wipes showed readings much less than 10% of the ANSI/HPS N13.12-1999 surface screening levels (all of the wipes readings were less than 200 dpm per 100 cm²). Clearly the average reading, which is important in the MARSSIM system, is much lower than 200 dpm per 100 cm². All the wipe results were much less than 25% of the ANSI/HPS N13.12-1999 (Surface and Volume Radioactivity Standards for Clearance), which indicates that surface screening levels for I-131 is 60,000 dpm per 100 cm². Thus, the surveys and wipe testing shows confirmation my initial contention that release of this facility to the general public will appropriately limit public doses to less than 25 mrem per year and the measurements are consistent with the ALARA principle.

License Change Requested

We hope that you have found this decommissioning to be acceptable. We have the highest confidence that these areas are safe and appropriately decommissioned and hope that my documentation of these surveys allows you to confidently arrive at the same conclusion.

Please terminate the Henry Ford Macomb Warren Hospital NRC license (NRC License No. 21-04082-01).

Please feel free to contact Alan Jackson at (313) 916-2739, (313) 916-7329 (FAX) or AlanJ@rad.hfh.edu if you have any questions.

Sincerely,

Donald Peck, PhD, DABR Radiation Safety Officer

cc: Radiation Safety Committee

Attachments (2) Filename: NRC Terminate HFMWH 4-12.doc

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Alan M. Jackson, MS, CHP Senior Health Physicist

Attachment 1 NRC Form 314: Certificate of Disposition of Materials

NRC FORM 314 U.S. (1.2273) 10 GFR 3980(0): 40 420(1): 10 GFR 3980(0): 40 420(1): 10 GFR 3980(0): 40 420(1): CERTIFICATE OF DISP(NUCLEAR RECULATORY CONSISSION	APPROVED BY ONE: NO. 256 Estimated burden per nacionas to con This submitted is used by NRC as per rolateral for unrestrictas uses. Bano D Services Barnell (T-5 F35), U.S. Alucien to by internet e-rest to infocolitation. Information and Regulatory Alata, N Badgue, Washington, DC 20053. It an display a cuteruity valid Ones control parton is Autorquient to respond to, fine	3 -0828 EXTERES: 10/31/2013 / hpty with the mandalory notection request 30 minutes, nt of the loads for the observice of the following to emmodia regulatory Commission. Westfination, DC 20052-001. Investment/Birnegov, and the the Deak Officer, Officer of INSU-10202, 10/10-02280, Officer, Officer of Manual and to Impace as information activities and a number, the NRCO may not cateful or apairson, and a information confection.							
UCENSEE NAME AND ADDRESS		LICENSE NUMBER	DOCKEY NUMBER							
Henry Ford Macomb-war	ren Hospital	21-04082-01	030-02042							
1355 Mast Ten Mile Ro	ad	LIGENSE EXPIRATION DATE								
Warren, MI 48089	Warren, MI 48089 October 31, 2015									
	A. LICENSE STATUS (Check the	appropriate box)								
This license has expired.	This license has not yet expired; please	e termineter it.								
dense de server a s	B. DISPOSAL OF RADIOACT	IVE MATERIAL	the market with							
The floensee or any individual execution	s bakes and compute an inductory. If an	aa. certifies thei'								
1. No radioactive materials have ever been procured or boesessed by the licensed under this license.										
17 2 All activities authorized by th	is license have ceased, and all radioac	live materials procured and	for possessed by the licensee							
under this license mumber ci	ted above have been disposed of in the	following manner.								
a. Transfer of radioactive materials to the licensee listed below:										
21-04109-16 Henry Ford	Hospital on April 3, 2012. This licens	c is part of the same health	system and has the same RSO.							
b. Disposal of radioactive ma	ateriats:									
t. Directly by the lice	льею;	а. Т								
2. By licensed disposal site:										
3. By waste contract	pr:									
✓ C. All radioactive materials fr Part 2D, Subpart E, and is	ave been removed such that any remain ALARA,	ning residual radioactivity is	s within the limits of 10 CFR							
	C. SURVEYS FERFORMED A	ND REPORTED								
1. A radiation survey was conduct	ted by the licensee. The survey confin	nas;								
a. the absence of licensed r	adioactive materials									
🚺 b. that any remaining residu	al radioactivity is within the limits of 10 (OFR 20, Subpart E, and is /	alara.							
2. A copy of the radiation survey	resulta:		te.							
🖌 a. is attached; or 🗌 b. Is n	ot attached (Provide explanation); or	a was forwarded to NF	RC on:							
3. A radiation survey is not require	red as only sealed sources ways ever		e, and							
s. The results of the latest le	sk best are attached; and/or	b. No leaking sources hat	ve ever been identified.							
The person to be contacted regarding the	he information provided on this form:									
NAME	TUTE	TELEPHONE (MOLOC Area Cooks	E-MAIL AODRESS							
Alan M. Jackson, MS, CHP	Senior Health Physicist	(313) 916-2739	alanj@msd.hfh.cdu							
Mei el Mure correspondence regarding d/s Rosse w: Alan Jackson, Radiation Safety Office,	Henry Ford Hospital, 2799 West Grand	Boulevard, Detroit, MI48	202							
	C, CERTIFYING OFF	CRAL								
	DER PENALTY OF PERJURY THAT THE	FOREGOING IS TRUE AND	CORRECT							
Donald Peck, PhD, DABR. Vice Chain	Diagnostic Physica	and the second se	April 17, 2012							
WARNING; FALSE STATEMENTS IN THIS CER BUBMISSIONS TO THE NRC BE COMPLETE AN WILLPULY FALSE STATEMENT OR REPORT	TIFICATE MAY BE SUBJECT TO CIVIL ANODIA D ACCURATE IN ALL MATERIAL RESPECT. 18 NTATION TO ANY DEPARTMENT OR ATERICY	CRIMINAL PENALTIES, ARC RE U.S.C. SECTION 1001 MAKES IT OF THE UNITED STATES AS 70	SULATIONS REQUIRE THAT							
NRC FORM \$14 (1-2017)										

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Attachment 2

Radiation Survey Details

Please note that this sections contains the raw counting data as collected during the survey without additional polish.

May. 2. 2012 11:05AM No. 1080 P. 13 Backup UPS Computer Uptake System • • • • Collimator Vertex Rack Camera WIPE SURVEY CTS. -4-12 NUC.MED HFH-WC A T L 10 - Hallway A Ś Floor Codonics Counter Pegasys Computer Printer NMIS (3 Computer Treadmill Treadmill Computer (11 Prep System . . Area 2 3 Hot Trash SE. Bed U N T E CUPBARE Prop (6) Area 1 2 (8) 5 17 R 8 18 counter 3 -1+-1 NO Hot C 0 Sink Ū -N T Da Sink B R 28

			Net Counting Ra	te .	Net Activity	
PACKAGE	(8)	Background		04/04/2012 13:56 377.0 cpm	60 sec	Trigger: 200 dpm
		Full Spectrum	-27.00 cpm		0.000 dpm	
PACKAGE	(A)	Background		04/04/2012 13:55 377.0 cpm	60 sec	Trigger: 200 dpm
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PACKAGE	(4)	Background		04/04/2012 13:54 377.0 com	60 sec	Trigger: 200 dpm
	U	Full Spectrum	-4.000 cpm		0.000 dpm	
PACKAGE	(5)	Background		04/04/2012 13:53 377.0 cpm	60 sec	Trigger: 200 dpm
		Full Spectrum	3.000 cpm		4.615 dpm	
PACKAGE	(4)	Background		04/04/2012 13:51 377.0 cpm	60 sec	Trigger; 200 dpm
		Full Spectrum	-48.00 cpm		0.000 dpm	
PACKAGE	3	Background		04/04/2012 13:50 377.0 com	60 sec	Trigger: 200 dpm
		Full Spectrum	6.000 cpm		9.231 dpm	
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		Full Spectrum	22.00 cpm		33.85 dpm	

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			Net Counting Ra	te	Net Activity	
PACKAGE	(20)	Background Full Spectrum	-24:00 cpm	04/04/2012 14:12 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(9)	Background Full Spectrum	4.000 com	04/04/2012 14:11 377.0 cpm	60 sec	Trigger, 200 dpm
PACKAGE	68	Background Full Spectrum	9.000 cpm	04/04/2012 14:10 377.0 cpm	60 sec 13.85 dpm	Trigger: 200 dpm
PACKAGE	(7)	Background Full Spectrum	-1.000 cpm	04/04/2012 14:08 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(16)	Background Full Spectrum	8.000 cpm	04/04/2012 14:07 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	(B)	Background Full Spectrum	-2.000 cpm	04/04/2012 14:06 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(19)	Background Full Spectrum	29.00 cpm	04/04/2012 14:05 377.0 cpm	60 sec 44.62 dpm	Trigger: 200 dpm
PACKAGE	(3)	Background Full Spectrum	-37.00 cpm	04/04/2012 14:03 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(2)	Background Full Spectrum	22.00 cpm	04/04/2012 14:02 377.0 cpm	60 sec 33.85 dpm	Trigger: 200 dpm
PACKAGE		Background Full Spectrum	-25.00 cpm	04/04/2012 14:00 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	10	Background Full Spectrum	4.000 cpm	04/04/2012 13:59 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	Ŧ	Background Full Spectrum	-10.00 cpm	04/04/2012 13:58 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm

Captus® 3000

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CAPTUS 3000 S/N: CNV-520 Henry Ford Macomb Hospital Warren Campus Department of Nuclear Medicine 13355 East 10 Mile Rd. Warren, MI, 48089

Selected Wipes

			Net Counting Ra	te	Net Activity	
PÁCKAGE	(31)	Background Full Spectrum	12.00 cpm	04/04/2012 14:26 377.0 cpm	60 sec 18.46 dpm	Trigger: 200 dpm
PACKAGE	30)	Background Full Spectrum	-15.00 cpm	04/04/2012 14:25 377.0 c pm	60 séc 0.000 dpm	Trigger: 200 dpm
PACKAGE	B	Background Full Spectrum	-39.00 cpm	04/04/2012 14:24 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(IE)	Background Full Spectrum	26.00 cpm	04/04/2012 14:23 377.0 cpm	60 sec 40.00 dpm	Trigger: 200 dpm
PACKAGE	67) Background Full Spectrum	-39.00 cpm	04/04/2012 14:21 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	6.6)	Background Full Spectrum	-38.00 cpm	04/04/2012 14:20 377.0 cpm	60 sec 0.000 dpm	Trigger. 200 dpm
PACKAGE	E	Background Full Spectrum	-33.00 cpm	04/04/2012 14:19 377.0 cpm	60.sec 0.000.dpm	Trigger: 200 dpm
PACKAGE	24	Background Full Spectrum	-9.000 cpm	04/04/2012 14:18 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	B	Background Full Spectrum	-7.000 cpm	04/04/2012 14:16 377.0 cpm	60 sec 0.000 dpm	Trigger 200 dpm
PACKAGE	(22)) Background Full Spectrum	42.00 cpm	04/04/2012 14:15 377.0 cpm	60 sec 64.62 dpm	Trigger: 200 dpm
PACKAGE	T	Background Full Spectrum	-15.00 cpm	04/04/2012 14:13 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm

Capintec, Inc. 04/04/2012

Captus® 3000

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Version 1.11 Page: 1

NMay. 2. 2012, 11:06AMr. WC 4-4-12 KC No. 1080 ...P. 17 KOOM Upreske System LINER 30 Q ()BAG Vertex Camera Collimator 15 Rack Ø TABLE C t 6 TLA 19 10 - Hallway Floor 0000 (20) Counter (Codonics Pegasys Computer 24 2 Printer Doog NMIS Treadmill Treadmill Computer Computer Prep System Area 2 3 Hot . Trash C Q Bed Trash U N T E Prep 2 5 Area 1 4 R 8 1 Hot С Sink 0 U N 1 Т Sink Е R

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P. 18 No. 1080





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Hallway

			Net Counting Ra	te	Net Activity	
PACKAGE	(2)	Background Full Spectrum	-4.000 cpm	04/04/2012 12:10 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	(\overline{l})	Background Full Spectrum	-8.000 cpm	04/04/2012 12:07 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	$\overline{(D)}$	Background Full Spectrum	-25.00 cpm	04/04/2012 12:06 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	(A)	Background Full Spectrum	-42.00 cpm	04/04/2012 12:05 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	G	Background Full Spectrum	-7.000 cpm	04/04/2012 12:01 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	(\mathcal{I})	Background Full Spectrum	-4.000 cpm	04/04/2012 12:00 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	\bigcirc	Background Full Spectrum	-4.000 cpm	04/04/2012 11:59 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(5)	Background Full Spectrum	-12.00 cpm	04/04/2012 11:58 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(J)	Background Full Spectrum	12.00 cpm	04/04/2012 11:57 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	(1)	Background Full Spectrum	-20.00 cpm	04/04/2012 11:55 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	3	Background Full Spectrum	-8.000 cpm	04/04/2012 11:52 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	()	Background Full Spectrum	-16.00 cpm	04/04/2012 11:18 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm

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No. 1080 P. 21

			Net Counting Ra	te	Net Activity	
PACKAGE	(m)	Background Full Spectrum	-33,00 cpm	04/04/2012 12:29 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(23)	Background Full Spectrum	-11.00 cpm	04/04/2012 12:27 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	62)	Background Full Spectrum	-13.00 cpm	04/04/2012 12:26 377.0 cpm	60 sec 0.000 dpm	Trigger 200 dpm
PACKAGE	(\mathcal{A})	Background Full Spectrum	11.00 cpm	04/04/2012 12:23 .377.0 cpm	60 sec 16.92 dpm	Trigger: 200 dpm
PACKAGE	(20)	Background Full Spectrum	<u>-13.00 cpm</u>	04/04/2012 12:22 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(G)	Background Full Spectrum	19.00.cpm	04/04/2012 12:20 377.0 cpm	60 sec 29.23 dpm	Trigger: 200 dpm
PACKAGE	(10)	Background Full Spectrum	-36.00 cpm	04/04/2012 12:19 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(\vec{p})	Background Full Spectrum	-64.00 cpm	04/04/2012 12:18 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	16	Background Full Spectrum	28.00 cpm	04/04/2012 12:17 377.0 cpm	60 sec 43.08 dpm	Trìgger: 200 dpm
PACKAGE	(15)	Background Full Spectrum	-56.00 cpm	04/04/2012 12:15 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	14	Background Full Spectrum	-10.00 cpm	04/04/2012 12:13 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(13)	Background Full Spectrum	30.00 cpm	04/04/2012 12:11 377.0 cpm	60 sec 46.15 dpm	Trigger: 200 dpm

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X			Net Counting Rat	te	Net Activity	
		Background Full Spectrum	-30.00 cpm	04/04/2012 13:00 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
7.		Background Full Spectrum	-48.00 cpm	04/04/2012 12:57 377.0 cpm	60 sec	Trigger, 200 dpm
Ex	PACINAGE (Background Full Spectrum	-13.00 cpm	04/04/2012 12:55 377.0 cpm	60 sec 0.000 dom	Trigger: 200 dpm
/	PACKAGE	Background Full Spectrum	-22.00 cpm	04/04/2012 12:54 377_0 cpm	60 sec 0.000 dom	Trigger: 200 dpm
	PACKAGE	Background Full Spectrum	-17.00 cpm	04/04/2012 12:53 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
		Background Full Spectrum	-25.00 cpm	04/04/2012 12:39 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	Background Full Spectrum	-14.00 cpm	04/04/2012 12:37 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	Background Full Spectrum	-1.000 cpm	04/04/2012 12:36 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	Background Full Spectrum	2.000 cpm	04/04/2012 12:34 377.0 cpm	60 sec	Trigger: 200 dpm
	PACKAGE	Background Full Spectrum	-13.00 cpm	04/04/2012 12:33 377.0 cpm	60 sec 0.000 dom	Trigger: 200 dpm
		Background Full Spectrum	-2.000 cpm	04/04/2012 12:32 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
		Background Full Spectrum	19.00 cpm	04/04/2012 12:30 377.0 cpm	60 sec 29.23 dpm	Trigger: 200 dpm

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-	··-	\supset		Net Counting Rat	ber	Net Activity	
	PACKAGE	B	Background Full Spectrum	-7.000 cpm	04/04/2012 13:21 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PÁCKAGE	P	Background Full Spectrum	1.000 cpm	04/04/2012 13:20 377.0 cpm	60 sec 1,538 dpm	Trigger: 200 dpm
	PACKAGE	(B)	Background Full Spectrum	-20.00 com	04/04/2012 13:18 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	B	Background Full Spectrum	-45.00 cpm	04/04/2012 13:17 377.0 cpm	298 08 mab 000.0	Trigger: 200 dpm
	PACKAGE	$\overline{()}$	Background Full Spectrum	-14.00 cpm	04/04/2012 13:15 377.0 cpm	60 sec 0.000 dom	Trigger: 200 dpm
	PACKAGE	(1)	Background	-8 000 cpm	04/04/2012 13:14 377.0 cpm	60 sec	Trigger: 200 dpm
200	PACKAGE	(Å)	Background Full Spectrum	-40.00 cpm	04/04/2012 13:13 377.0 cpm	60 sec	Trigger: 200 dpm
X	RACKAGE	¢	Background Full Spectrum	-8.000 cpm	04/04/2012 13:11 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
9	PACKAGE	(\mathcal{I})	Background Full Spectrum	-26.00 cpm	04/04/2012 13:10 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
a	PACKAGE	6	Background Full Spectrum	-63.00 com	04/04/2012 13:04 377.0 cpm	60 sec	Trigger: 200 dpm
	PACKAGE	6	Background Full Spectrum	28.00 cpm	04/04/2012 13:03 377.0 cpm	60 sec	Trigger: 200 dpm
	PACKAGE	Ŧ	Background Full Spectrum	-29.00 cpm	04/04/2012 13:01 377:0 cpm	60 sec	Trigger: 200 dpm

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Selected Wipes

			\	Net Counting Rat	te	Net Activity	
10	PACKAGE	6D	Background Full Spectrum	-3.000 cpm	04/04/2012 13:38 .377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
Perch	PACKAGE	(\mathcal{T})	Background Full Spectrum	-38.00 cpm	04/04/2012 13:37 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
ta la	PACKAGE	6	Background Full Spectrum	-43.00 cpm	04/04/2012 13:35 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
R	PACKAGE	Ē	Background Full Spectrum	-20.00 cpm	04/04/2012 13:34 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
JAC	PACKAGE	(P)	Background Full Spectrum	-14.00 cpm	04/04/2012 13:33 377.0 cpm	60 sec 0.000 dpm	Trigger; 200 dpm
ALLU	PACKAGE	3	Background Full Spectrum	10.00 cpm	04/04/2012 13:32 377.0 cpm	60 sec	Trigger: 200 dpm
4	PACKAGE	Ø	Background Full Spectrum	-22.00 cpm	04/04/2012 13:30 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	\overline{O}	Background Full Spectrum	8.000 cpm	04/04/2012 13:29 377.0 cpm	60 sec 12.31 dpm	Trigger: 200 dpm
~	PACKAGE	B	Background Full Spectrum	-7.000 cpm	04/04/2012 13:28 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
Neon N		A)	Background Full Spectrum	0.000 cpm	04/04/2012 13:24 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
Nes	PACKAGE	(FB)	Background Full Spectrum	-36.00 cpm	04/04/2012 13:22 377.0 cpm	60 sec 0.000 dpm	Trìgger: 200 dpm

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May. 2. 2012 11:07AM No. 1080 P. 25 FONTE CAO 4-4-12 MEDICIN NUCLEAR Forte Camera UPS Collimator V B Rack 啊 B Ø Ð 3 É 20 Ð Á T L Ø 0 A S Tuble U 6 7 -16 Ø Pegasys ł (FD) Computer System Ì (30) Door 20 G 2 25 Door Counter RIS Computer rib. System 25 Lockers 27 Scale Toilet 3 33 9 : Sink Stat

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			Net Counting Ra	te	Net Activity	
PACKAGE	(Π)) Background Full Spectrum	-26.00 cpm	04/04/2012 10:45 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(10)	Background Full Spectrum	-35.00 cpm	04/04/2012 10:44 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	Ø	Background Full Spectrum	-29.00 cpm	04/04/2012 10:43 377.0 cpm	60 sec 0,000 dpm	Trigger: 200 dpm
PACKAGE	Ø	Background Full Spectrum	-36.00 cpm	04/04/2012 10:41 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	Ð	Background Full Spectrum	7.000 cpm	04/04/2012 10:40 377.0 cpm	60 sec 10.77 dpm	Trigger: 200 dpm
PACKAGE	(4)	Background Full Spectrum	13.00 cpm	04/04/2012 10:38 377.0 cpm	60 sec 20.00 dpm	Trigger: 200 dpm
PACKAGE	6)	Background Full Spectrum	-13.00 cpm	04/04/2012 10:37 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(4)	Background Full Spectrum	-32.00 cpm	04/04/2012 10:35 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	B)	Background Full Spectrum	~19.00 cpm	04/04/2012 10:34 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	E)	Background Full Spectrum	-26.00 com	04/04/2012 10:32 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	0	Background Full Spectrum	-3.000 cpm	04/04/2012 10:29 377.0 cpm	60 sec	Trigger: 200 dpm

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			Net Counting Rat	te	Net Activity	
PACKAGE	23	Background Full Spectrum	-4.000 cpm	04/04/2012 11:03 377.0 cpm	60 séc 0.000 dpm	Trigger: 200 dpm
PACKAGE	(2)	Background Full Spectrum	-37.00 cpm	04/04/2012 11:01 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	Û	Background	-23.00 cpm	04/04/2012 11:00 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	60) Background Full Spectrum	-23.00 cpm	04/04/2012 10:58 377:0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	(19)	Background	23.00 cpm	04/04/2012 10:57 377.0 cpm	60 sec 35.38 dpm	Trigger: 200 dpm
PACKAGE	18) Background Full Spectrum	20.00 cpm	04/04/2012 10:55 377.0 cpm	60 sec 30:77 dpm	Trigger: 200 dpm
PACKAGE		Background Full Spectrum	-10.00 cpm	04/04/2012 10:54 377.0 cpm	60 sec	Trigger: 200 dpm
PACKAGE	6	Background Full Spectrum	-36.00 cpm	04/04/2012 10:52 377.0 cpm	60 sec 0.000 dpm	Trigger. 200 dpm
PACKAGE	B	Background Fuil Spectrum	-33.00 cpm	04/04/2012 10:51 377.0 cpm	60 sec 0.000 dpm	Trígger::200 dpm
PACKAGE	T	Background Full Spectrum	-39.00 cpm	04/04/2012 10:49 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
PACKAGE	I	Background Full Spectrum	18.00 cpm	04/04/2012 10:48 377.0 cpm	60 sec 27.69 dpm	Trigger: 200 dpm
PACKAGE (12)	Background Full Spectrum	-1.000 com	04/04/2012 10:46 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm

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CAPILUS JUUU S/N: UNV-520 Henry Ford Macomb Hospital Warren Campus Department of Nuclear Medicine 13355 East 10 Mile Rd. Warren, MI. 48089

Today's Wipes

~	<u> </u>			Net Counting Rat	te	Net Activity	
	PACKAGE	34)	Background Full Spectrum	-16.00 cpm	04/04/2012 11:18 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	(33)	Background Full Spectrum	-33.00 cpm	04/04/2012 11:17 377.0 cpm	60 sec	Trigger: 200 dpm
HEX	PACKAGE	(32)	Background Full Spectrum	-44.00 com	04/04/2012 11:16 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
5	PACKAGE	31)	Background Full Spectrum	-27.00 cpm	04/04/2012 11:15 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	D	Background Full Spectrum	-19.00 cpm	04/04/2012 11:12 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	(29)	Background Full Spectrum	5.000 cpm	04/04/2012 11:11 377.0 cpm	60 sec 7.692 dpm	Trigger: 200 dpm
	PACKAGE	(28)	Background Full Spectrum	-36.00 cpm	04/04/2012 11:10 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	61) Background Full Spectrum	-9.000 cpm	04/04/2012 11:08 377.0 cpm	60 sec 0.000 dpm	Trigger: 200 dpm
	PACKAGE	6-6)	Background Full Spectrum	11.00 cpm	04/04/2012 11:07 377.0 cpm	60 sec 16.92 dpm	Trigger: 200 dpm
	PACKAGE	65	Background Full Spectrum	11.00 cpm	04/04/2012 11:05 377.0 cpm	60 sec 1 <u>6.92 dpm</u>	Trigger: 200 dpm
	PACKAGE	24	Background Full Spectrum	6.000 cpm	04/04/2012 11:04 377.0 cpm	60 sec 9.231 dpm	Trigger: 200 dpm

Captus® 3000

Version 1.11 Page: 1

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Henry Ford Macomb Hospital Warren Campus Department of Nuclear Medicine 13355 East 10 Mile Rd. Warren, MJ, 48089

Selected Wipes



Captus® 3000

Version 1.11 Page: 1

			Net Counting Re	te	Net Activity	
PACKAGE	6	Background		04/03/2012 14:37 393.0 cpm	60 sec	Trigger: 200 dpm
	$\underline{\bigcirc}$	Full Spectrum	16.00 cpm		24.62 dpm	
PACKAGE	(0)	Background	·	04/03/2012 14:35 393.0 cpm	60 sec	Trigger: 200 dpm
	12	Full Spectrum	6.000 cpm		9.231 dpm	
PACKAGE	(\tilde{G})	Background		04/03/2012 14:33 393.0 cpm	60 sec	Trigger 200 dpm
	<u> </u>	Full Spectrum	-57.00 cpm		0.000 dpm	
PACKAGE	(8)	Background		04/03/2012 14:31 393.0 cpm	60 sec	Trigger: 200 dpm
	<u> </u>	Full Spectrum	23.00 cpm		35.38 dpm	
PACKAGE	(G)	Background		04/03/2012 14:17 393.0 cpm	60 sec	Trigger: 200 dpm
		Full Spectrum	-19.00 cpm	··· ·	0.000 dpm	
PACKAGE	(b)	Background		04/03/2012 14:16 393 0 cpm	60 sec	Trigger: 200 dpm
	C	Full Spectrum	35.00 cpm	000.0 op.ii	53.85 dpm	
PACKAGE	3	Background		04/03/2012 14:11 393.0 cpm	60 sec	Trigger: 200 dpm
		Full Spectrum	-33.00 cpm	000.0 00.01	0.000 dpm	
PACKAGE	(I)	Background		04/03/2012 14:09 393.0 cpm	60 sec	Trigger: 200 dpm
		Full Spectrum	-20.00 cpm		0.000 dpm	

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No. 1080 P. 32

		Net Counting Ra	te	Net Activity	
PACKAGE	Background	-39 00 opm	04/03/2012 15:03 393.0 cpm	60 sec	Trigger: 200 dpm
	Fuil Spectrum	-39.00 Cpm			
	Background		04/03/2012 15:00 393.0 cpm	60 sec	Trigger. 200 dpm
	Full Spectrum	-20.00 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:58 393.0 cpm	60 sec	Trigger: 200 dpm
<u> </u>	Full Spectrum	-12.00 cpm		0.000 dpm	
	Background		04/03/2012 14:54 393.0 cpm	60 sec	Trigger: 200 dpm
	Full Spectrum	26.00 cpm		40.00 dpm	
PACKAGE	Background		04/03/2012 14:53 393.0 com	60 sec	Trigger: 200 dpm
	Full Spectrum	-45.00 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:51 393.0 cpm	60 sec	Trigger 200 dpm
	Full Spectrum	-3.000 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:49 393.0 cpm	60 sec	Trigger: 200 dpm
	Full Spectrum	-20.00 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:47 393.0 cpm	60 sec	Trigger: 200 dpm
	Full Spectrum	-7.000 cpm	· · · · · · · · · · · · · · · · · · ·	0.000 dpm	
PACKAGE	Background		04/03/2012 14:44 393.0 cpm	60 sec	Trigger: 200 dpm
	Full Spectrum	-14.00 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:42 393.0 cpm	60 sec	Trigger: 200 dpm
	Full Spectrum	8.000 cpm		12.31 dpm	
PACKAGE	Background		04/03/2012 14:41 393.0 cpm	60 sec	Trigger: 200 dpm
<u> </u>	Full Spectrum	-19.00 cpm		0.000 dpm	
PACKAGE	Background		04/03/2012 14:40 393.0 com	60 sec	Trigger: 200 dpm
	Full Spectrum	17.00 cpm		26.15 dpm	

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No. 1080 P. 1



Radiology 2799 West Grand Boulevard Detroit, Mi. 48202 Radiation Safety Office # (313) 916-7042 Radiation Safety Fax # (313) 916-7329

Henry Ford Hospital Henry Ford Medical Group

Facsimile Transmittal

то: N	RC RegionII	Facility	Morenals	Licensi	(Karen)
Phone:	7030)	Fauc	(630)51	5-10-	18
From: Al	an M. Jackson	Dept:	Radiation Safety	Office	
Phone: (3	13) 916-2739	Fax:	(313) 916-7 32 9	8456	
Pages:	32	Date:	5/2/12	-	
🗆 Urgent	For Review	🗌 Per y	our request	🗆 Please	Reply
• Comm	ents:				
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1)	tospral.		1		

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