

Excelsior Springs, MO 64024 816-630-6081 www.eshospital.org

April 9, 2010

To:

**Toye Simmons** 

**Nuclear Regulatory Commission** 

630-829-9842

Fax: 630-515-1078

From: Stacy Meseberg

**Director of Radiology** 

816-629-2757

Fax:

816-629-2758

RE:

License number 24-32234-01

Reference Control No:

318-751

Appendix c, NUREG, Vol. 9, Rev. 2 is attached for review.

Also included in the documentation is an amended page 5 from the original license submission.

Excelsion Sorinus Hospital

	Excelsion Spri		·	APPENDIX	
Tal		and 6 on NRC Form s checklist, check applica attach copy of checklist	ible rows and fill in detai		
□ Yes □ No	o Attachment and marked "Security-related information - withhold under 10 CFR 2.390"				
Yes	Radionuclide	Form or Manufacturer/ Model No.	Maximum Quantity	Purpose of Use	
\	Any byproduct material permitted by 10 CFR 35,100	Any	As needed	Any uptake, dilution, and excretion study permitted by 10 CFR 35.100.	
	Any byproduct material permitted by 10 CFR 35,200	Any	As needed	Any imaging and localization study permitted by 10 CFR 35.200.	
	F-1B	Any	curies	Production of PET radioactive drugs under 10 CFR 30.32(j).	
	0-15	Any	curies	Production of PBT radioactive drugs under 10 CFR 30.32(j).	
34 24	C-11	Any	curies	Production of PET radioactive drugs under 10 CFR 30.32(j).	
	Any byproduct material permitted by 10 CFR 35.300	Any	1600 millicuries	Any radiopharmaceutica therapy procedure permitted by 10 CFR 35.300.	
V	lodine-131	Any	/ <u>AeD</u> millicuries	Administration of 1-131 sodium iodide.	
	Byproduct material permitted by 10 CFR 35.400 (Radionuclids	Sealed source or device (Manufacturer  Model No	millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.	
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide	Sealed source or device (Manufacturer  Model No)	millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.	
	Byproduct material permitted by 10 CFR 35,400 (Radionuclide	Sealed source or device (Manufacturer Model No	millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.	
	Byproduct material permitted by 10 CFR 35.400 (Radionuclide	Sealed source or device (Manufacturer Model No	millicuries	Any brachytherapy procedure permitted by 10 CFR 35.400.	

Ta	(If using thi	and 6 on NRC Form is checklist, check applicate attach copy of checklist t	ble rows and fill in detail	s, and
Yes	Radionuclide	Form or Manufacturer/ Model No.	Maximum Quantity	Purpose of Use
	Strontium-90	Sealed source or device (Manufacturer Model No	millicuries	Treatment of superficial sye conditions using an applicator distributed pursuant to 10 CFR 32.0 and permitted by 10 CFR 35.400.
	Byproduct material permitted by 10 CFR 35.500 Check all that apply:  Gd-153; J-125; Other, describe	Sealed source or device (Manufacturer Model No)	curies per source and curies total	Diagnostic medical use of sealed sources permitted by 10 CFR 35.500 in compatible devices registered pursuant to 10 CFR 30.32(g).
	Iridium-192	Sealed source or device (Manufacturer  Model No)	curies per source and curies total	One source for medical use permitted by 10 CFR 35.600, in a Manufacturer  Model No. remote afterloading brachytherapy device. One source in its shipping container as necessary for replacement of the sour in the remote afterloade device.
	Cobalt-60	Sealed source or device (Manufacturer  Model No)	curies per source and curies total	One source for medical use permitted by 10 CFR 35.600, in a Manufacturer  Model No. teletherapy unit. One source in its shipping container as necessary replacement of the sour in the teletherapy unit.
	Cobalt-60	Scaled source or device (Manufacturer  Model No)	curies per source and curies total	For medical use permitted by 10 CFR 35.600, in a Manufacturer  Model No. storeotactic radiosurged device. Sources in the shipping container as necessary for replacement of the gources in the stereotact

Table C.2 Items 5 and 6 on NRC Form 313: Radioactive Material and Use (If using this checklist, check applicable rows and fill in details, and attach copy of checklist to the application.)				
Yes	Radionuclide	Form or Mannfacturer/ Model No.	Maximum Quantity	Purpose of Use
				radiosurgery duvice.
	Any byproduct material under 10 CFR 31.11	Prepackaged kits	millicuries	In vitro studies.
	Depleted uranium	Metal	kilograms	Shielding in a teletherap unit.
- 44	Depleted uranium	Meial	kilograms	Shielding in a linear accelerator.
	Any radionuclide in excess of 30 millicuries for use in	Scaled source or device (Manufacturer	millicuries	For use in a Manufacturer
	calibration, transmission, and reference sources. (List radionuclide:	Model No		Model No
25	Americium-241	Sealed source or device (Manufacturer Model No)	millicuries per source and millicuries total	Use as an anatomical marker.
2711	Plutonium (principal radionuclide Pu-238)	Sealed sources	millicuries per source and grams total	As a component of Manufacturer  Model No.  nuclear-powered cardiac pacemakers for clinical evaluation in accordance with manufacturer's protocol dated  This authorization includes: follow-up, explantation, recovery, disposal, and implantation.
	Other	Form or Manufacturer/Model No.	millicuries	Purpose of use

items 7 through 11 on NRC Form 313: Training & Experience, Facilities Table C.3 & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.) Check box to indicate Item Number material Suggested Response and Title included in application For an individual previously identified as an RSO on an NRC or Item 7: Radiation Agreement State license or permit: Current 24-32234-01 Safety Officer Previous license number (if issued by the NRC), or a copy of a license (if M Name: issued by an Agreement State), or a copy of a permit (if issued by an NRC Christopher master materials licenses) on which the individual was specifically named Moore as the RSO. For an individual qualifying under 10 CFR 35.57(a)(3): Documentation that the individual was: the RSO for only the medical uses of accelerator-produced radioactive material or discrete sources of Ra-226 included in the definition of byproduct material as a result of the EPAct; the RSO for the medical uses of these materials before or during the effective period of NRC's waiver of August 31, 2005. For an individual qualifying under 10 CFR 35.50(a): Ö Copy of certification by a specialty board whose certification process has been recognized to by NRC or an Agreement State under 10 CFR 35.50(a). Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO. Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed training in and experience required for certification, as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO. If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.

On the names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site <a href="http://www.nrc.gov/materials/miau/med-use-toolkit.html">http://www.nrc.gov/materials/miau/med-use-toolkit.html</a>.

# Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or

1	provide information separately.)	
Item Number and Title	Suggested Response	Check box to indicate material included in application
	For an Individual qualifying under 10 CFR 35.50(b):	
	Description of the training and experience specified in 10 CFR 35.50(b) demonstrating that the proposed RSO is qualified by training and experience as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO.	0
	AND	.,
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO.  AND	D.
**************************************	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the required training and experience specified in 10 CFR 35.50(b), as well as the training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO.	o
**************************************	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	Ø
***************************************	For an individual qualifying under 10 CFR 35.50(c)(1):	
	Copy of the certification(s) as a medical physicist by a board whose certification process has been recognized <sup>11</sup> by the NRC or an Agreement State under 10 CFR 35.51(a) and description of the experience specified in 10 CFR 35.50(c)(1) demonstrating that the proposed RSO is qualified by experience as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO.	ס
	AND	***************************************
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO.	0
	AND	

The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site <a href="http://www.nrc.gov/materials/miau/med-use-toolkit.html">http://www.nrc.gov/materials/miau/med-use-toolkit.html</a>.

tem Number and Title	Suggested Response	Check box to indicate material included in application
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the required training and experience specified for certification, as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO.	
	AND	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	
***************************************	For an individual qualifying under 10 CFR 35.50(c)(2):	
	Copy of the licensee's license indicating that the individual is an AU, AMP, or ANP identified on the licensee's license and has experience with radiation safety aspects of similar types of use of byproduct material for which the applicant seeks approval of an individual to serve as RSO.  AND	Ö
	Description of the training and experience specified in 10 CFR 35.50(e) demonstrating that the proposed RSO is qualified by training in radiation safety, regulatory issues, and emergency procedures as applicable to the types of use for which the applicant seeks approval of an individual to serve as RSO.  AND	0
	Written attestation, signed by a preceptor RSO, that the individual has satisfactorily completed the requirements in 10 CFR 35.50(c)(2), as well as training in radiation safety, regulatory issues, and emergency procedures for the types of use for which the licensee seeks approval, and has achieved a level of radiation safety knowledge sufficient to function independently as an RSO.	0
	AND	

APR-9-2010 12:48P FRUM:DIAGNUSTIC TECHNOLOG (913) 235-6600

APPENDIX C

#### Items 7 through 11 on NRC Form 313: Training & Experience, Facilities Table C.3 & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.) Check box to indicate Item Number material Suggested Response and Title included in application For an individual previously identified as an AU on an NRC or Agreement Item 7: Authorized Users for medical State license or permit: current Ad's M Previous license number (if issued by the NRC), or a copy of the license Name(s), (including (if issued by an Agreement State), or a copy of a permit issued by an NRC license number master materials licensee, or a copy of a permit issued by an NRC or authorizing practice Agreement State broad-scope licensee, or a copy of a permit issued by an of medicine, NRC Master Materials License broad-scope permittee on which the podiatry, or physician, dentist, or podiatrist was specifically named as an AU for the dentistry if not provided proviously uses requested. or in attachment); Requested uses for each individual For an AU requesting authorization for an additional medical use: Description of the additional training and experience to demonstrate the AU is also qualified for the new medical uses requested (e.g., training and experience needed to meet the requirements in 10 CFR 35.290 (b), 35.396, 35.390(b)(1)(ii)(G), or 35.690(c)). A preceptor attostation, if required (e.g., attostation is required to meet the requirements in 10 CFR 35.396, 35.390(b)(1)(ii)(G), or 35.690(c)). For an individual qualifying under 10 CFR 35.57(b)(3): Documentation that the physician, podiatrist, or dentist: used only accelerator-produced radioactive materials, or discrete sources of Ra-226, or both, for medical uses before or during the effective period of NRC's waiver of August 31, 2005; and used these materials for the same medical uses requested. For an individual qualifying under 10 CFR Part 35, Subparts D, E, F, G, and/or H, who is board-certified: Copy of the certification(s) by a specialty board(s) whose certification process has been recognized12 by the NRC under 10 CFR Part 35, Subpart D. E. F. G. or H, as applicable to the use requested.

<sup>12</sup> The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site <a href="http://www.nrc.gov/materials/miatu/med-use-toolkit.html">http://www.nrc.gov/materials/miatu/med-use-toolkit.html</a>.

item Number and Title	Suggested Response	Check box to indicate material included in application
	For an individual with a board certification recognized under 10 CFR 35.390, a description of the supervised work experience administering dosages of radioactive drugs required in 10 CFR 35.390(b)(1)(ii)(G) demonstrating that the proposed AU is qualified for the types of administrations for which authorization is sought;	σ
***************************************	AND For an individual with a board certification recognized under	
	10 CFR 35.390 for medical uses described in 10 CFR 35.200, a description of the supervised work experience cluting generator systems required in 10 CFR 35.290(c)(1)(ii)(G) demonstrating the proposed AU is also qualified for imaging and localization medical uses;  AND	<del>-</del>
	For an individual with a board certification recognized under 10 CFR 35.490 or 35.690 seeking authorization under 10 CFR 35.396(d), a description of the classroom and laboratory training and supervised work experience required to demonstrate qualifications for administering parenteral administrations of unsealed byproduct material requiring a written directive;  AND	۵
	For an individual seeking authorization under 10 CFR Part 35, Subpart H, description of the training specified in 10 CFR 35.690(c) demonstrating that the proposed AU is qualified for the type(s) of use for which authorization is sought;	0
	AND	**************************************
	Written attestation, signed by a preceptor physician AU, that the training and experience specified for certification, as well as the clinical casework, or training and experience required by 10 CFR 35.396(d), or training for 10 CFR 35.600 types of use, if appropriate, have been satisfactorily completed and that a level of competency sufficient to function independently as an AU for the medical uses authorized has been achieved;	0
	AND	r open gerigen etter ette e
W.A	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	

item Number and Title	provide information separately.)  Suggested Response	Check box to indicate material included in application
	For an Individual qualifying under 10 CFR Part 35, Subparts D, E, F, G, and/or H, who is not board-certified:	
	A description of the training and experience identified in 10 CFR Part 35, Subparts D, E, F, G, and H, demonstrating that the proposed AU is qualified by training and experience for the use(s) requested.	0
	For an individual seeking authorization under 10 CFR Part 35, Subpart H, description of the training specified in 10 CFR 35.690 (c) demonstrating that the proposed AU is qualified for the type(s) of use for which authorization is sought.  AND	0
	Written attestation, signed by a preceptor physician AU, that the above training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an AU for the medical uses authorized has been achieved.	D
······································	AND If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	D
tem 7: Authorized	For an individual previously identified us an ANP on an NRC or Agreement State license or permit:	5
Name(s) and license to practice pharmacy:	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the individual was specifically named ANP.	0
***************************************	For an individual qualifying under 10 CFR 35.57(a)(3):	
	Documentation that the nuclear pharmacist:  used only accelerator-produced radioactive materials or discrete sources of Ra-226, or both, in the practice of nuclear pharmacy before or during the effective period of NRC's waiver of August 31, 2005; and	0

#### Items 7 through 11 on NRC Form 313: Training & Experience, Facilities Table C.3 & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.) Check box to indicate Item Number material Suggested Response and Title included in application For an individual qualifying under 10 CFR 35.55(a): O Copy of the certification(s) of the specialty board whose certification process has been recognized12 under 10 CFR 35.55(a). Written attestation, signed by a preceptor ANP, that training and experience required for certification have been satisfactorily completed and that a level of competency sufficient to function independently as an ANP has been achieved. AND O If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59. For an individual qualifying under 10 CFR 35.55(b): П Description of the training and experience specified in 10 CFR 35.55(b) demonstrating that the proposed ANP is qualified by training and experience. AND Written attestation, signed by a preceptor ANP, that the above training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an ANP has been achieved. AND If applicable, description of recent related continuing education and O experience as required by 10 CFR 35.59. For an individual previously identified as an AMP on an NRC or Item 7: Authorized Agreement State license or permit: Medical Physicists $\mathbf{\Omega}$ Namc(s): Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the

individual was specifically named an AMP for the uses requested.

<sup>13</sup> The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site <a href="http://www.nrc.gov/materials/miau/med-usc-toolkit.html">http://www.nrc.gov/materials/miau/med-usc-toolkit.html</a>.

### Items 7 through 11 on NRC Form 313: Training & Experience, Facilities Table C.3 & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.) Check box to indicate Item Namber material Suggested Response and Title included in application For an individual qualifying under 10 CFR 35.57(a)(3): $\Box$ Documentation that the medical physicist: used only accelerator-produced radioactive material, discrete sources of Ra-226, or both, for medical uses before or during the effective period of NRC's waiver of August 31, 2005; and used these materials for the same medical uses requested. For an individual qualifying under 10 CFR 35.51(a): Copy of the certification(s) of the specialty board(s) whose certification $\Box$ process has been recognized14 under 10 CFR 35.51(a). Description of the training and experience specified in 10 CFR 35.51(c) demonstrating that the proposed AMP is qualified by training in the types of use for which he or she is requesting AMP status, including hands-on device operation, safety procedures, clinical use, and operation of a treatment planning system. Written attestation, signed by a preceptor AMP, that the required training and experience required for certification, as well as the training and experience specified in 10 CFR 35.51(c) have been satisfactorily completed, and that a level of competency sufficient to function independently as an AMP has been achieved. If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59. For an individual qualifying under 10 CFR 35.51(b): Description of the training and experience demonstrating that the proposed AMP is qualified by training and experience identified in 10 CFR 35.51(b)(1) for the uses requested.

<sup>&</sup>lt;sup>14</sup>The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Web site <a href="http://www.nrc.gov/materials/miau/med-use-toolkit.html">http://www.nrc.gov/materials/miau/med-use-toolkit.html</a>.

Item Number and Title	Suggested Response	Check box to indicate material included in application
	Description of the training and experience specified in 10 CFR 35.51(c) demonstrating that the proposed AMP is qualified by training in the types of use for which he or she is requesting AMP status, including hands-on device operation, safety procedures, clinical use, and operation of a treatment planning system.	ō
***************************************	AND	
	Written attestation, signed by a preceptor AMP, that the required training and experience have been satisfactorily completed and that a level of competency sufficient to function independently as an AMP has been achieved.	0
******************	AND	
	If applicable, description of recent related continuing education and experience as required by 10 CFR 35.59.	Ö
Item 7: Authorized User for nonmedical uses	Note: For purposes of this section of the table, the term "authorized user" is used to mean individuals authorized for the nonmedical uses described. See Sections 8.11 and 8.12.	
	For an individual previously authorized for nonmedical use on an NRC or Agreement State license or permit:	
Name(s): Requested types, quantities, and nonmedical uses for each individual	Previous license number (if issued by the NRC), or a copy of the license (if issued by an Agreement State), or a copy of a permit issued by an NRC master materials licensee, or a copy of a permit issued by an NRC or Agreement State broad-scope licensee, or a copy of a permit issued by an NRC Master Materials License broad-scope permittee on which the individual was specifically named an AU for the types, quantities, and uses requested.	0
***********************	For individuals qualifying under 10 CFR 30.33(a)(3):	
	Documentation of the individual's training and experience demonstrating that the individual is qualified to use the types and quantities of licensed materials for the requested uses.	0
Item 9: Facility Diagram	A diagram is enclosed that describes the facilities and identifies activities conducted in all contiguous areas surrounding the area(s) of use. The following information is included:	×
	Guidance in Section 5.2 was reviewed and security-related sensitive information provided is marked accordingly.	<i>[</i> 3.
	Drawings should be to scale, indicating the scale used.	

& Equipment, Radiation Protection Program, and Waste Disposal  (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)			
tem Namber and Title	Suggested Response	Check box to indicate material included in application	
	<ul> <li>Location, room numbers, and principal use of each room or area where byproduct material is prepared, used or stored, location of direct transfer delivery tubes from a PET radionuclide/radioactive drug production facility or production area of PET radioactive drugs under 10 CFR 30.32(j), and areas where higher energy gamma- emitting radionuclides (e.g., PET radionuclides) are used;</li> </ul>	<i>p</i> u.	
	<ul> <li>Location, room numbers, and principal use of each adjacent room (e.g., office, file, toilet, closet, hallway), including areas above, beside, and below therapy treatment rooms, indicating whether the room is a restricted or unrestricted area as defined in 10 CFR 20.1003; and</li> </ul>	<b>K</b>	
	<ul> <li>Provide shielding calculations and include information about the type, thickness, and density of any necessary shielding to enable independent verification of shielding calculations, including a description of any portable shields used (e.g., shielding of proposed patient rooms used for implant therapy, including the dimensions of any portable shield, if one is used; source storage safe).</li> </ul>	O	
	In addition to the above, for teletherapy and GSR facilities, applicants should provide the directions of primary beam usage for teletherapy units and, in the case of an isocentric unit, the plane of beam rotation.	σ,	
Item 9: Radistion Monitoring Instruments	A statement that: "Radiation monitoring instruments will be calibrated by a person qualified to perform survey meter calibrations."  AND/OR	, A	
	A statement that: "We have developed and will implement and maintain written survey meter calibration procedures in accordance with the requirements in 10 CFR 20.1501 and that meet the requirements of 10 CFR 35.61."  AND		
	A description of the instrumentation (e.g., gamma counter, solid state detector, portable or stationary count rate meter, portable or stationary dose rate or exposure rate meter, single or multichannel analyzer, liquid scintillation counter, proportional counter) that will be used to perform required surveys.  AND	s¢.	
H	A statement that: "We reserve the right to upgrade our survey instruments as necessary as long as they are adequate to measure the type and level of radiation for which they are used."	Ą	
Item 9; Dose Calibrator and Other Dosage Measuring Equipment	A statement that: "Equipment used to measure dosages will be calibrated in accordance with nationally recognized standards or the manufacturer's instructions,"	<b>j</b> n-	

Camera Model	Manufacturer	Location
DSXi Single Head SPECT	SMV	Imaging Room
9.1.2.2 Survey Meters		
Model	Manufacturer	Range
End Window GM	Ludlum 14C	0-2000 mR/hr
9.1.2.3 Counting Equipment  Model	Manufacturer	Use
Spectroscaler	Picker	Wipe Counter
9.1,2.4 Dose Calibrator  Model	Manufacturer	Use
CRC-5	Capintec	Activity Calibrator
O1(O-2	A transcensor	***************************************

## 9.2 Survey Meter Calibration

We will have our survey meters calibrated by an outside company licensed and approved for this purpose.

# 9.3 Dose Calibrator

We have developed a dose calibrator calibration procedure for your review that is appended as ATT 9.3.

## 9.4 Personnel Monitor Program

We will establish and implement the model procedure for personnel external exposure monitoring program that was published in Appendix D to the Regulatory Guide 10.8, Revision 2, however, dosimeters utilizing optically stimulated luminescence (OSL) technology (e.g., Landauer Luxel OSL dosimeter) may be used.

#### Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.) Check box to indicate Item Number material Suggested Response and Title included in application When administering dosages of alpha-emitting unscaled byproduct material in other than unit dosages made by a manufacturer or preparer licensed under 10 CFR 32,72 or 10 CFR 30.32(j), A statement that: "Dosages will be determined by relying on the provider's dose label for measurement of the radioactivity and a combination of volumetric measurement and mathematical calculation." We are providing a description of the dosage measurement equipment, the nationally recognized calibration standard (or manufacturer's calibration instructions), and dosage measurement We are providing the procedures required by 10 CFR 35.642, Item 9: Therapy 10 CFR 35.643, and 10 CFR 35.645, if applicable to the license Unit - Calibration and Use application. Item 9: Other Guidance in Section 5.2 was reviewed and security-related information Q. Equipment and provided is marked accordingly. Facilities Attached is a description, identified as Attachment 9.4, of additional facilities and equipment. For manual brachytherapy facilities, we are providing a description of the emergency response equipment. For PET radionuclide use, PET radioactive drug production, and П radiopharmaceutical therapy programs, we are providing a description of the additional facilities and equipment for these uses. For teletherapy, GSR, and remote afterloader facilities, we are providing a description of the following: Warning systems and restricted area controls (e.g., locks, signs, warning lights and alarms, interlock systems) for each therapy treatment room; Area radiation monitoring equipment; Viewing and intercom systems (except for LDR units); Steps that will be taken to ensure that no two units can be operated simultaneously, if other radiation-producing equipment (e.g., linear accelerator, X-ray machine) is in the treatment room; Methods to ensure that whenever the device is not in use or is unattended, the console keys will be inaccessible to unauthorized persons; and Emergency response equipment.

Item Number and Title	Suggested Response	Check box to indicate material included in application
Item 10: Safety Procedures and Instructions	Attached are procedures required by 10 CFR 35.610.	, 'pi'
A	Guidance in Section 5.2 was reviewed and security-related sensitive information provided is marked accordingly.	5
Item 10: Occupational Dose	A statement that: "Either we will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in 1 year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20 or we will provide dosimetry that meets the requirements listed under 'Criteria' in NUREG-1556, Vol. 9, Rev. 1, 'Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licenses.'	Ж
	A description of an alternative method for demonstrating compliance with the referenced regulations.	0
Item 10: Area Surveys	A statement that: "We have developed and will implement and maintain written procedures for area surveys in accordance with 10 CFR 20.1101 that meet the requirements of 10 CFR 20.1501 and 10 CFR 35.70."	pť
Item 10: Safe Use of Unscaled Licensed Material	A statement that: "We have developed and will implement and maintain procedures for safe use of unsealed byproduct material that meet the requirements of 10 CFR 20.1101 and 10 CFR 20.1301."	汝
Item 10: Spill/Contamination Procedures	A statement that: "We have developed and will implement and maintain written procedures for safe response to spills of licensed material in accordance with 10 CFR 20.1101."	(E)
Item 10: Installation, Maintenance, Adjustment, Repair,	Name of the proposed employee and types of activities requested:  AND	0
and Inspection of Therapy Devices Containing Scaled Sources	Description of the training and experience demonstrating that the proposed employee is qualified by training and experience for the use requested.  AND	٥
***************************************	Copy of the manufacturer's training certification and an outline of the training in procedures to be followed.	0
Item 10: Minimization of Contamination	A response is not required under the following condition: the NRC will consider that the above criteria have been met if the information provided in applicant's responses satisfy the criteria in Sections 8.15, 8.16, 8.21, 8.25, 8.27, and 8.29, on the topics: facilities and equipment, facility diagram, Radiation Protection Program, safety program, and waste management.	N/A

HEK-A-SAIR 15:255 EKOM: DIHRNO21IC FECHNOTOR (212) 920-2022

Table C.3 Items 7 through 11 on NRC Form 313: Training & Experience, Facilities & Equipment, Radiation Protection Program, and Waste Disposal (Check all applicable rows and fill in details and attach a copy of the checklist to the application or provide information separately.)				
Item Number and Title	Suggested Response	Check box to indicate material included in application		
Item II: Waste Management	A statement that: "We have developed and will implement and maintain written waste disposal procedures for licensed material in accordance with 10 CFR 20.1101, that also meet the requirements of the applicable section of 10 CFR Part 20, Subpart K, and of 10 CFR 35.92."	PL.		
	Attached is a description of the radioactive waste incinerator facility and related portions of the Radiation Safety Program (10 CFR 20.2004).	G		
	Attached is a request to receive potentially contaminated radiation transport shields from consortium members receiving PET radioactive drugs noncommercially transferred under 10 CFR 30.32(j) authorization.	0		