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Gamma Irradiator Service

Fax

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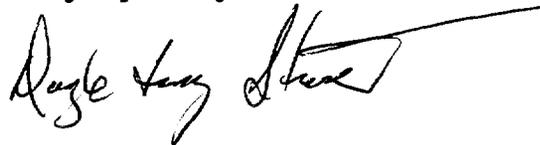
To: Kathy Modes **From:** Doyle Stout
Fax: 610-337-5269 **Date:** December 31, 2003
Phone: 610-337-5251 **Pages:** 13
Re: Document No. 133983 **CC:**

Urgent For Review Please Comment Please Reply Please Recycle

•Comments: Hi Kathy

Here's the response to document No.133983 for the additional; information requested if you have any questions call me at home. I want to thank you for your professional help and that it's greatly appreciated. Hope you have a great New Year!

Sincerely Doyle Terry stout



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REGION 1

133983

NMSS/RGNI MATERIALS-002
FAX RECEIVED 12/31/2003

Gamma Irradiator Service Response to Appendix C

(C 6, C21(1,2,6)) Devices that are serviced at the customer's facility (licensed material will remain on customer's license) will be serviced under the service provider license. If source exchange work is to be performed, possession of sealed sources will remain on customer's license or on the source provider's license. Service provider will comply with facilities rules for maintaining control of radioactive material while service work is being performed. Agreement for responsibility for customer and service provider will be addressed on the Service Request form. In addition service provider may use additional locks or tag outs to control unauthorized use while service is being provided. Any degradation of safety system or any part of the device which could cause failure will be identified and recommendations made to the customer.

JL Shepherd and Associates	SS&D	Radioisotope
Mark 1 series 22	CA-0598-D-104-S	Cs ¹³⁷
25	CA-0598-D-104-S	Cs ¹³⁷
30	CA-0598-D-104-S	Cs ¹³⁷
68	CA-0598-D-104-S	Cs ¹³⁷
All sub Models Mark-1	CA-0598-D-104-S	Cs ¹³⁷
Mark 4 series	CA-0598-D-105-S	Cs ¹³⁷ , Sr ⁹⁰
10, 10A series	CA-0598-D-110-S	Cs ¹³⁷
28 series	CA-0598-D-106-S	Cs ¹³⁷ , Co ⁶⁰ , Am ²⁴¹
78 series	CA-0598-D-107-S	Cs ¹³⁷ , Co ⁶⁰
81 series (8-24)	CA-0598-D-117-S	Cs ¹³⁷ , Co ⁶⁰ , Eu ¹⁵²
89 series	CA-0598-D-108-S	Cs ¹³⁷
142 series	CA-0598-D-114-S	Cs ¹³⁷ , Co ⁶⁰
143 series	CA-0598-D-103-S	Cs ¹³⁷
149 series	CA-0598-D-109-S	Pu ²³⁸ , Be, Am ²⁴¹ , Be, Ca ²⁵²
280 series	CA-0598-D-111-S	Cs ¹³⁷ , Co ⁶⁰
423 series	CA-0598-D-112-S	Cs ¹³⁷
492, 492 M series	CA-0598-D-123-S	Sr ⁹⁰ , Y ⁹⁰
484, 484A, 484B, 484C series	CA-0598-D-113-S	Cs ¹³⁷ , Co ⁶⁰
109 SERIES	CA-0598-D-116-S	Co ⁶⁰
Icn Pharmaceutical Inc.		
GR-6	NR-0360-D-865-U	Cs ¹³⁷
GR-9	NR-0360-D-862-U	Co ⁶⁰
AECL Nordion		
Gammacell 220R	CA-0598-D-118-S	Co ⁶⁰
Gammacell 220	NR-0169-D-119U	Co ⁶⁰
Gammacell 40	NR-0169-D-132U	Cs ¹³⁷
Gammacell Elite	NR-0220-D-102-S	Cs ¹³⁷
Gammacell Elan	NR-0220-D-102-S	Cs ¹³⁷
Gammacell 200	NR-8003-D-802-S	Co ⁶⁰

Gamma Irradiator Service Response to Appendix C

(C 6(2,3, 6,8,9))

Radiation Machinery CO/ Isomedix

Gammator Model M, M34, M38 NR-0880-D-806-S Cs¹³⁷

Gammacell 1000 NR-0220-D-102-S Cs¹³⁷

Eberline

Thermoretec (formerly TMA/Eberline)

Model 1000 NR-8105-D-803-S Cs¹³⁷

Model 1000B NR-8105-D-805-8 Cs¹³⁷

Other

CDV-794 NR-0628-D-832-S Cs¹³⁷

Other sources and device(s) of similar design registered with the NRC or an Agreement State. Non registered devices shall not be removed from the licensee except for appropriate disposal.

6.2. Instruction for self shielded irradiators

Self shielded irradiators are basically of three different designs. The first design is with stationary sources in which a drawer moves the sample past the shielded sources. The second design is also with stationary sources in which a drum rotates the sample area in front of the source. The third basic design is with a moveable source that moves the source into the shielded sample area, exposes the sample area, and then returns to the shield. The moving source type usually has more than one interlock to prevent the door from opening with the source in the irradiate position. On this type of irradiator the door must be locked closed when working on the source operator to prevent exposure outside the door area.

Locking of irradiators can be accomplished with interlocks, mechanically, padlocks or electrical interlocks. Use of seals to the access of safety related parts should be used to confirm that no unauthorized access has been attempted. Security shall be maintained while performing service work by constant surveillance, locks, either room or device until returned to routine operation or until completion of Gamma Irradiator Service job commitment. Performing non-routine maintenance on these irradiators includes but is not limited to the following: leak test, check of operator or drawer for smooth operation, check of all interlocks and safety system, source centering, pneumatics, drives, lubrication per manufactures recommendation, micro switches(each individual switch is tested for proper operation), relays, timers, and mechanical wear on parts. Dose rate survey of the device shall be recorded along with the results of the leak test. Completion of the service will be after an Inspection/Performance Test is completed and after operating the unit more than 35 times to insure proper operation of the safety system and interlock system. Replacement parts and components shall be approved and tested before returning to service. Devices that are not registered with the NRC or an Agreement State will have the same stringent Inspection/Performance Test. Detailed dose rate surveys will be taken on non-registered devices at Irradiate and load positions with measurements in transit.

Gamma Irradiator Service Response to Appendix C

(C 2,C 10(3,5))

Leak Test Will then be counted in accordance with Appendix O NUREG 1556, Volume 18. Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Providers Licenses, dated November 2000

Field check the use of a thin window GM detector (frisker) to test a smear at the customer's location to determine if a source has any activity or indications of leaking. Note: counting with a frisker using a 10 % efficiency (10% is conservative for Co⁶⁰, Cs¹³⁷ typically Co⁶⁰ has about a 14% efficiency and Cs¹³⁷ a 18% efficiency) with a background of 200 counts per minute (typically 50 to 60 cpm is normal background) with a 1 minute sample count time this would yield an MDA of .002 uCi.

Installation shall be consistent with manufactures recommendations; service personnel shall have been qualified as Ancillary personnel at a minimum.

Relocation should have the drawer or source operator secured to prevent movement during relocation, service personnel shall have been qualified as Ancillary personnel at a minimum.

Repair shall be consistent with manufactures recommendations and check off sheets, service personnel shall have been qualified as Ancillary personnel at a minimum and be signed off with necessary training or in the presence of a named user or RSO.

Radiation surveys shall be performed on each device that is serviced. Surveys will include contact and 30 cm dose rates recorded on a survey sheet for that device along with leak test smear and location.

Packaging will be consistent with all NRC and DOT regulations and consistent with manufactures recommendation. Verification of 7-A certification and inspection, leak test etc. prior to packaging.

Customer Training will be given for all new units, relocation with new users and upon request from the licensee. Topics covered will range from basic radiation fundamentals to irradiator safety functions and interlock test along with decay, isodose curve interpretation, proper operation of unit and what to do if unit fails.

(C 10(8))

Gamma Irradiator Service Response to Appendix C

Routine Maintenance with the proper training, on this license, is radiation surveys, installation, relocation, repair, packaging, leak test and customer training. Qualifications of Ancillary personnel as a minimum.

Removal of sources onsite with the use of a shielded transfer cask may be a DOT 7-A container or a shield in order to clean the source tube. An Authorized User and at least one other person may be Ancillary Personnel qualified for this task, or being specifically trained for this task. Specific procedures determined for the site and the device to be worked on.

Disposal of sources will be performed with a qualified Authorized User and qualified (ancillary) second person. Source will be transferred into a DOT 7-A container and packaged according to type A quantity or type B, and shipped with a qualified broker or shipper with a part 71 program.

Source Exchange will be accomplished with procedures and a shielded cask and a qualified Authorized User personnel and qualified second person Ancillary personnel.

Source retrieval will be accomplished with procedures and a shielded cask and a qualified Authorized user personnel and qualified second person Ancillary personnel. Specific procedures will be determined for each job based on location, source activity, device or access to source.

Non-routine maintenance is any work that requires source movement from the normal device into a temporary storage shield, any reduction in shielding that would greatly increase the dose rates temporarily. This non-routine work requires a specific procedure an Authorized User or RSO and a qualified second person Ancillary personnel. Requires an ALARA review prior to start of job and pre job briefing to be documented. Non-routine maintenance includes source retrieval, source exchange, source disposal and source removal.

Replacement Parts Gamma Irradiator Service will use only approved parts and components and test the device prior to returning the unit to routine service (see section 6.2).

Radiation Safety Officer

(C 12)

Doyle Terry Stout

Training

November 1979 to March 1981 TMI

170 hours Health Physics

March 1981 Peach Bottom

2 weeks GET, Health Physics level 1 and level 2 completion of test required

3 days of ND 6600 GELI training for isotopic identification

Gamma Irradiator Service Response to Appendix C

- August 1981 Palisades
2 weeks level 2 Health Physics completion of test required
- January 1982 Salem
1.5 weeks level 2 Health Physics completion of test required
- August 1982 to November 1986 Susquehanna
1 week training each year level 2 Health Physics completion of test required
- January 1987 to 1988 Peach Bottom, Susquehanna
2 weeks GET, Health Physics level 2 completion of test required
- January 1989 Susquehanna, Nine Mile Point
3 days level 2 Health Physics
2 weeks GET, Health Physics level 2 completion of test required
- January 1990 to November 1992 Susquehanna, Nine Mile Point
1 week training each year level 2 Health Physics
- January 1992 to December 1994 Susquehanna, Calvert Cliffs
1 week training each year level 2 Health Physics Susquehanna
2 weeks GET, Health Physics level 2, completion of North Utilities test required
- January 1995 to December 1997 Susquehanna, Calvert Cliffs, Palisades, Seabrook
1 week training each Susquehanna, Calvert Cliffs, Palisades
2 weeks GET, Health Physics level 2, completion of North Utilities test required
40 hour Hazmat with Teamsters Newburg NY
- January 1998 to present Susquehanna, JL Shepherd and Associates
1 week training Susquehanna level 2 Health Physics
40 hrs didactic training device repair training, 8 hr hazmat refresher JL Shepherd and Associates
- January 1999 to present JL Shepherd and Associates
1 week each year Health Physics refresher, 8 hour hazmat, device training, shipping, training on new device upgrades, NRC information notices.

Experience.

- 1979 to present Health Physics Level 2 ANSI 3.1 qualified Technician
- Calibrations
 - High radiation area job coverage
 - Surveys
 - Radiation Work Permit writing
 - ALARA review
 - Stay time calculations
 - Leak test on power plant sealed sources Cs¹³⁷, Co⁶⁰, Am²⁴¹, Pu²³⁸ Be, Am²⁴¹ Be, Ca²⁵², Sr⁹⁰, Y⁹⁰, Tc⁹⁹, Th²³⁰, Pb²¹⁰, Ba¹³³, C¹⁴, Co⁵⁷, Kr⁸⁵, Pm¹⁴⁷, Tl²⁰⁴
 - Shielding calculations
 - Isotopic Identification using MCA and feather analysis
- 1998 to present, provide service work on irradiators, calibrators, research irradiators
- Perform source source transfers
 - Installation
 - Decommission

Gamma Irradiator Service Response to Appendix C

Relocate
 Calibrate devices
 Calibrate Instruments
 Repair
 Weld as needed (qualified JL Shepherd 1999)
 Customer training for operation, leak test, routine and non-routine maintenance.
 Level 2 QA inspector (qualified JL Shepherd 2001)
 Shipping, receiving, installation and service of sources from Mci to 30,000 Ci. Range
 Consulting for engineering and Health Physics
 Leak test on device sealed sources Cs¹³⁷, Co⁶⁰, Am²⁴¹, Pu²³⁸ Be, Am²⁴¹ Be, Ca²⁵², Sr⁹⁰, Y⁹⁰.
 Hot cell work retrieve over 3000 sealed sources Quehanna
 Pool source work with greater than 1000 transfers

(C 17, C21)

Alara concept is an excellent foundation for any radiation safety program, when practiced it allows the lowest dose received to occupationally exposed personnel. Service personnel should receive less than 5 millirem per week average (personnel exposure for 6 years of service work including source transfers has resulted in less than .5 man rem total for 6 years) whole body and less than 10 millirem extremity average. If personnel routinely exceed this, an investigation to determine the cause shall be performed by the RSO. Extremity dosimetry shall be worn, if calculated extremity exposures exceed 100 millirem per job and 10 times whole body exposure. All measures shall be considered when planning for a source transfer, e.g. shielding, mirrors, cameras and monitors, remote handlers, time and distance, mock up, and practice with dummy sources if possible.

(C 18)

Manufacturer	Model	Detector	Radiation detected
Ludlum *	14-C	44-6/HP-260	Beta/Gamma
Ludlum *	2241-2	44-6/HP-210T	Beta/Gamma
Eberline *	E-520	HP-270/260/210	Beta/Gamma 2each
Eberline *	ESP-2	various	A lpha/Beta/Gamma
Eberline *	RO-2A	ion chamber	Beta/Gamma
Eberline *	SRM-100	Various	Digital Scaler
Eberline	PIC-6A	ion chamber	Gamma 3each
Eberline	MP-2	n/a	pulse generator
Eberline	SPA-3	Scintillation probe	Gamma
Bicron *	RSO-500	ion chamber	Beta/Gamma
Victoreen set	570	ion chamber	Condensor R-meter
Radcal * traceable)	2025	3cc/180cc ion chamber	Gamma (NIST
Xetex	305B	GM	Beta/Gamma
Eberline *	RM-14		Frisker/cpm
Eberline *	RO-4	Ion Chamber	Beta /Gamma

Gamma Irradiator Service Response to Appendix C

Various (approximately 40) * self reading dosimeters Ion Chamber Gamma (ranging from 2 mr to 600R)

We reserve the right to upgrade instruments as necessary

***Instruments that are currently calibrated**

(C 20, C21, C22(4,5))

All personnel working on a routine basis providing service under this license shall have completed the training described in Appendix H in NUREG-1556, Volume 18, 'Consolidated Guidance About Materials Licenses: "Program-Specific Guidance About Service Providers Licenses, dated November 2000"' and be monitored for radiation exposure in the section entitled 'Occupational Dose' in NUREG-1556, Vol. 18, Consolidated guidance About Materials Licenses: "Program-Specific Guidance About Service Providers Licenses, dated November 2000". Operation and use of devices shall be consistent with manufactures recommendations. Personnel working on all devices shall have a calibrated operational survey meter in the area at all times that meets the criteria in "Radiation Safety Program Instruments in NUREG-1556, Vol. 18, 'Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Service Providers Licenses,' dated November 2000."

(C 23(6))

Service provider shall maintain security of licensed material when service is being performed on a device. An agreement on the Gamma Irradiator Service "Service Request Form" outlines customer and service providers responsibilities (see Service Request Form). Smear survey of the area on the device that is most likely to show if a source is leaking, should be taken prior to service work. If smear results are greater than .005 μci (11,100 dpm) is acquired, restrict access to the room, notify the RSO for the customer's facility and the RSO of the service provider, and take additional area smears and document. Determine if the smears are the same isotope as in the device by using absorbers or a single or multi channel analyzers.

Operation and emergency procedures have been written to cover most all situations that will be encountered. Operation and emergency procedure will be maintained and updated to provide the best radiological controls in normal and emergency conditions.

An audit of Health Physics and license compliance will be performed on an annual basis. Any violation of the license will be noted with recommendations and corrective actions. Guidelines for the audit should be followed from NUREG-1556, Vol. 18 Appendix I.

Currently Gamma Irradiator Services has only one service person which is the owner of the company.

Radiation safety procedures are built into training and are through out the Gamma Irradiator Service Radiation Safety Program manual. The Radiation Safety manual address items such

Gamma Irradiator Service Response to Appendix C

as having a survey meter with an auditable function that will alert the service person of a change in radiological conditions. Other items that are addressed are the use of locks and lock out tags to secure the door on a Mark 1 model when servicing the tower and checking the source operator for proper clearance and free movement.

(4)

Exposure monitoring will follow the section 'Occupational Dose' in NUREG-1556, Vol. 18, Consolidated guidance About Materials Licenses: "Program-Specific Guidance About Service Providers Licenses, dated November 2000" at all times when performing service work; the exception would be if the facility you're working at requires you to wear their dosimetry. When working with neutron sources neutron dosimetry will be issued and worn. A calibrated working survey meter capable of and calibrated for neutrons will be used while working with any neutron source. Dose for neutron exposure will be calculated based on the neutron dose rate and the time in that dose field. This calculated exposure will be recorded on the dosimeter dose data sheet.

(C 23)

Gamma Irradiator Services will maintain records of repairs that use replacement parts. Gamma Irradiator Services will inform licensed user that the device they are performing working on needs any failure to be reported (part 21.21 Notification of failure to comply or existence of a defect and its evaluation). Gamma Irradiator Services Radiation Safety Manual in the Notifications section list notifications from" Table 8.4 Typical NRC Incident Notifications Required for Service Provider Licensees" this notification will be made by the RSO.

(C 22)

Surveys on incoming, opening and picking up radioactive material packages will be in accordance with 10 CFR 20.1906. Dose rate survey shall be performed prior to opening package to insure the dose rates contact and 1 meter (or TI) on the package are the same. All information on the shipping document or/and bill of lading shall be reviewed prior to opening package.

All records for devices and work performed shall be maintained for review by regulatory authorities or customers and the license conditions. Gamma Irradiator Services will maintain a history for each device serviced with radiation surveys, leak test, performance test and Device Inspection sheets. All calibration documents will be maintained for review by regulatory authorities or customers. Gamma Irradiator Services will maintain a history for all employees with dose records that have been monitored by Gamma Irradiator Services.

(C 21 C26)

Open air transfers shall require a minimum of two personnel one being a named user. Specific instructions, ALARA, radiation safety, emergency procedures, shielding, dose calculations and tooling (such as U shaped handlers, long reach handlers and use of mirrors or camera system) will be addressed in the procedure for the device or source to be moved. All procedures/ work instructions shall be pre approved and proper notifications made prior to commencing work.

Gamma Irradiator Service Response to Appendix C

(C 21, C22 C 26,(4,5))

Personnel working on a routine basis providing service under this license shall have completed the training described in Appendix H in NUREG-1556, Volume 18, 'Consolidated Guidance About Materials Licenses: "Program-Specific Guidance About Service Providers Licenses, dated November 2000" Exposure monitoring will follow the section 'Occupational Dose' in NUREG-1556, Vol. 18, Consolidated guidance About Materials Licenses: "Program-Specific Guidance About Service Providers Licenses, dated November 2000". Operation and use of devices shall be consistent with manufactures recommendations and manuals for the device that service is being serviced. Personnel working on all devices shall have a calibrated operational survey meter in the area at all times. ALARA will be practiced when servicing all devices. Service provider shall maintain control and security of licensed material when service is being performed on a device. Smear survey of the area on the device that is most likely to show if a source is leaking, should be taken prior to service work. If smear results are greater than .005 μci (11,100 dpm) is acquired, restrict access to the room, notify the RSO for the customer's facility and the RSO of the service provider, and take additional area smears and document. Determine if the smears are the same isotope as in the device by using absorbers or a single or multi channel analyzers.

(C 26)

Maintenance will follow the manufactures training for device repair and preventative maintenance (on going from 1998 to 2003) and (Gamma Irradiator Services) developed procedures and device inspection sheets for the following:

(7) **Installation Instructions** – Incoming package will be surveyed and recorded to insure TI is as listed and no contamination in excess of shipping regulations exists. The device will be moved to the customer's location only if the shipping fixtures are in place to prevent a change in dose rates (prevents movement of source or/and shielding) in transit. Once the device is in location and all tags and labels required by the NRC or an Agreement State for identification are verified the unit may be leveled and assembly will follow. During this operation there is no significant change in dose rates from when the unit is operating, however surveys will be performed prior to assembly. After assembly the unit will be completely tested for proper operation and leak test performed prior to control being given to the customer. Training will be provided for the customer prior to use.

(7,9) **Relocation Instructions-** will follow the same instructions as installation with exception to training unless requested (assuming the same user(s) have been previously trained).

Alignment of the source (source centering for proper isodose curve) alignment of the source doesn't change the external dose rates.

Repair and or replacement of electronic parts for the safety system to be tested a minimum of 35 times to ensure proper operation.

Repair and or replacement of mechanical parts for the safety system to be tested a minimum of 35 times to ensure proper operation.

Instructions for Removal of sealed source or replacement of sealed source

All measures shall be considered when planning for a source transfer, e.g. shielding, mirrors, cameras and monitors, remote handlers, time and distance, mock up, and practice with

Gamma Irradiator Service Response to Appendix C

dummy sources if possible. Calculations will be performed for anticipated contact, 30cm and 1 meter dose rates. No operation will be performed unless sufficient shielding is applied to meet the limits of 10 CFR 20.1302. During operations involving removal or replacement of sealed sources constant surveillance will be maintained and pre and post leak test will be performed. All operations will be monitored for increased dose rates from the initial survey and recorded. The procedure/instruction for source removal or replacement of source(s) is:

1. planning
2. ALARA review
3. Attaching the transfer shield to the device
4. Post the area appropriately
5. Attach the source transfer rod to the shield attached to the source monitor dose rates.
6. Pull the source into the transfer shield monitor dose rates. (actual transfer time is normally ≤ 3 seconds) at all times the source remains shielded.
7. Install the bottom shield plugs
8. remove the source transfer rod
9. Install the top shield plug
10. Bolt the top and bottom shields in place, monitor dose rates.
11. Remove the transfer shield from the irradiator monitor dose rates.
12. Survey and label appropriately

Installation of new source after old is removed

1. Remove shipping bolts from bottom shield plugs on transfer cask with new source.
2. Install and align transfer cask over source tube
3. Post area appropriately
4. Remove the top shield plug monitor dose rates, smear the transfer container for contamination evaluate and install the source transfer rod to the shielding holding the source.
5. Move the new source from the transfer cask into the source tube of the irradiator monitor dose rates.
6. Install the top shield plug
7. Remove the transfer shield from the irradiator monitor dose rates.
8. If ready for assembly then install the source operator to the shielding on the source holder.
9. Install the source lock down cap on the irradiator until ready to complete the installation.
10. Put proper labeling on empty transfer shield.

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Any device that has had sources removed ,installed or replaced and any device that has had repair (using replacement parts will have been evaluated to ensure they do not degrade the engineering safety analysis performed and accepted as part of the device registration) preventative maintenance or work on any safety systems will be operated for a minimum of 35 times before being returned to routine service to verify that it functions as designed and that source integrity has not been compromised.

All records and surveys will be maintained for 3 years from the date of the survey , as required by 10 CFR 20.2103. Device inspection sheets will be the guidelines for maintenance and typically have (but not limited to) the following information:

- Device serial number
- Original activity
- Isotope
- Model number
- Leak test results from field check
- Dose rates
- Safety system test performed a minimum of 35 times
- Components tested
- Air system pressure
- Air leakage internal and external
- Solenoid valves
- Operating pressure
- Maximum contact dose rate
- Average 30cm dose rate
- Source centering data
- Sample can size
- Timer test
- Exposure rate in irradiation chamber (use of 600 Rem Pocket Ion Chambers)
- Check for latest upgrades

**Gamma Irradiator Service
Response to Appendix C**

**Gamma Irradiator Service
Service Request Form**

Customer Facility _____

Customer Address _____

Customer Contact Name _____

Phone number _____ Fax Number _____

Alternate Contact Name _____ Phone number _____

Main Named User (person to contact for information as to the condition and what repair is needed for the device) _____ Phone Number _____

Radiation Safety Officer _____ Phone number _____

Agreement for responsibilities between Customer and Gamma Irradiator Service

Customer retains possession of sources on their license (with the exception of source exchange, decommissioning or transferring to another properly licensed licensee) Gamma Irradiator Service will maintain security (including posting, labeling and requirements for radiation protection) of device when performing service work. When the job is completed and the device is tested and returned to routine operations the customer will maintain security in accordance with their license.

Service requested:	Preventative Maintenance	Y	N
	Maintenance and Repair	Y	N
	Relocation	Y	N
	Source Reloading	Y	N
	Device Decommissioning	Y	N
	Training	Y	N

If repair needed describe

Device Model _____

Device SN: _____

Device Isotope _____

Device Activity _____

Device Activity Date ___ / ___ / ___

Last Service date (if known) ___ / ___ / ___

Additional

Comments _____

Fax to Gamma Irradiator services 570-925-5681 requestor/title _____

Requestor _____

Phone number _____