



Harper Hospital

Detroit Medical Center / Wayne State University

November 1st, 2004

3990 John R Rd.
Detroit, MI 48201

Materials Licensing Section
US Nuclear Regulatory Commission; Region III
2443 Warrenville Road Suite 210.
Lisle, IL 60532-4352

Attn: Patricia J. Pelke
Subject: Amendment request License # 21-04127-02
Additional information Control Number 313558

This is to inform you that the Iridium-192 source and Nucletron MicroSelectron Classic device (identified in Subitem N. of Items 6., 7., 8., and 9.) have been removed. Please, find the documentation regarding the transfer/disposal of the source/device and evidence that the source did not leak while in the possession of Harper University Hospital.

Please direct any questions regarding the above matter to Azucena Garzon, M.S., Clinical Physics Coordinator Gershenson Radiation Oncology Center, by phone at 313-745-2007 and fax at 313-745-2314

Sincerely,

Richard Joyrich, M.D.
Radiation Safety Officer
Harper University Hospital
License # 21-04127-02



www.dmc.org

NOV 9 2004



Nucletron Corporation, Service Department, 7080 Columbia Gateway Drive, Columbia, MD 21046-2133 PH: 410-872-4400 Fax: 410-312-4196

Customer	Call Type			Call No.			
Harper Hospital - Gershenson Radiation	<input type="checkbox"/> Phone	<input type="checkbox"/> Recall	<input type="checkbox"/> Repair	SPC	Equip.	Failure	Action
Address	<input type="checkbox"/> Install	<input type="checkbox"/> Training	<input type="checkbox"/> PM	Codes	022		
3990 John R. Street	<input type="checkbox"/> CA	<input checked="" type="checkbox"/> Other	<input type="checkbox"/>	Serial No.	9015		
Detroit, MI 48201	Charge Type			FW version	8.01		
Phone No. 313-745-2488	<input checked="" type="checkbox"/> Contract	<input type="checkbox"/> No Charge	<input type="checkbox"/> Bill	Date in	1-Nov-04	Out	1-Nov-04
PO No. US2210R	<input type="checkbox"/> Install	<input type="checkbox"/> Warranty	<input type="checkbox"/>	Time in	10:30	Out	12:30
Dosimeter Reading: 0 mR							

Symptom
deinstall classic mHDR s/n 9015

Resolution
Insured source removed and prepared mHDR s/n 9015
to be returned to Nucletron Corp.

Proper people contacted at Nucletron for shipping pick up.

For Office Use Only - This Is Not An Invoice

Qty used	Description	Part Number	Qty ret	Return Status	RX Call (if different)	Description of problem / failure

Travel Charged	4.50 Hrs	Airline	Travel Expenses (Meals, Tolls, etc)	\$12.00
Regular Charged	2.00 Hrs	Rental Car		
Overtime Charged	Hrs	Hotel		
O/T (Sundays & Holidays)	Hrs	No of Miles	186	

We certify that the work carried out in all sections of this document has been carried out in accordance with the manufacturer's instructions by Nucletron's authorized representative with proper supervision by:

Tue Nov 2004 11/02/04 12:36:15

 Engineer

Customer

LEAK TEST RESULTS Device HDR "Classic"

ISOTOPE: Ir 192

DATE: 10-20-04

PERFORMED BY: M. YUDELEV

* Reviewed by Radiation Safety Officer: _____
(Teletherapy RSO for Co-60 units, Broad Scope RSO for brachytherapy source)

PROCEDURE: See below

Alcohol Swab Wipes

COUNTING INSTRUMENT: NAI well counter SETTINGS: See Attached

STANDARD & ACTIVITY: ¹³⁷CS 0.092 μ Ci CALIBRATION DATE: 9.28.1973

DECAYED ACTIVITY: 0.048 (μ Ci)

STANDARD CTS/TIME: ⁴⁶¹⁶⁶~~297,436~~ 83 STANDARD CPM: 45927

BACKGROUND CTS/TIME: 170 171 191 BACKGROUND CPM: 179 30 33

MINIMUM DETECTABLE ACTIVITY = 3×10^{-5} (μ Ci)

COUNTING TIME USED FOR SAMPLES: 1 min

SOURCE	GROSS COUNTS	CPM	NET CPM	POSSIBLE LEAK (μ Ci)	O.K. (\checkmark) (<0.005 μ Ci)
locky Ring	202		23		\checkmark
Needle Transfer Tube	240		61		\checkmark
Collector Transfer Tube	165		0		\checkmark

Whipe test with 2" NaI well counter in R.O.C. physics lab.

Bias voltage +800V (Canberra HV Power Supply type 3102). Preamplifier output to Canberra main amplifier (type 2022): 30x, Coarse 30, Fine 10.00, shaping 0.5 μ s. The unipolar or bipolar output to constant fraction timing single channel analyzer (TSCA, Canberra type 2035A): discrimination 0.025 - minimum, energy window ΔE 10.00 - maximum, input shaping 0.1-0.5 μ s. The +ve output to Canberra (type 2071A) or EG&G/Ortec (type 871) scalar.



Nucletron®

Transport Drum (Barrel) Wipe Test Work Sheet Sealed Source (Cable) Leak Test Work Sheet

Nucletron Corporation, Service Department, 8671 Robert Fulton Drive, Columbia, MD 21046 PH: 410-872-4400 Fax: 410-312-4196

INSTRUCTIONS FOR NUCLETRON FIELD SERVICE ENGINEER

- 1 Follow the USA Nucletron Wipe Test Work Instruction, to perform the tests and analyses described below.
- 2 After the spent source is secured within the shielded inner source shipping container (pig), collect a leak test sample of the sealed source by wiping along the source cable. Using a dry wipe pad, wipe FROM the end of the cable TOWARD the source. Do not touch the wipe to any other surface.
- 3 Collect a wipe test of 300 cm² from the exterior of the outer shipping container using a dry wipe. Wipe twice (2x) around the side of the container and twice (2x) across the top using moderate pressure.
- 4 In a low radiation background area, use the "Inspector" Survey Instrument to measure the background count rate and the count rate from each wipe. Place the wipe on the tray, centered under the detector.
- 5 If the BR exceeds 80 cpm, re-measure the background count rate.
- 6 If either wipe exceeds one-half it's limits contact the RSO.
- 7 Measure and record the maximum dose rate on the surface of the outer shipping container and the maximum dose rate at one (1) meter.

Device Serial No. and type	Source Serial No. & Type	Container S/N	Radiation Inst. S/N & Cal	Background BR	LLD = (4.66)(Sqrt B)+3+B	Source Wipe SWR	Drum Wipe DWR
31557/9015 mHDR	D35A0877 IR192	1092C5 Calibrated on 2-Jul-04 Calibration due 2-Jan-05	8562 2-Jul-04 2-Jan-05	32 cpm If >80 move to lower background area	61.36 counts	29 cpm	35 cpm
Maximum dose rate (surface):		Maximum dose rate (1 meter)		Current activity:			
10.0 mR/h		0.4 mR/h		3.2 Ci			

CERTIFICATE OF TRANSPORT DRUM CONTAMINATION ANALYSIS

The Transport Drum Wipe Test was assayed for beta-gamma contamination. Title 49 CFR 173.443 limits the removable contamination for 300cm² surface wipes to less than 120 Bq (0.003 µCi)(6,600 dpm) for external surfaces of packages in transportation.

If DWR is less than or equal to LLD, record "<LLD". Otherwise, Sample Activity = (DWR-BR)/E, where E is the instrument efficiency found on the calibration sticker

Sample Activity <LLD dpm

FSE Signature

SigPlus1

CERTIFICATE OF CABLE WIPE TEST

The Leak Test Sample was assayed for beta-gamma contamination. Title 10 CFR 35.59 limits the removable contamination from a sealed source used in brachytherapy to 200 Bq (0.005 µCi)(11,100 dpm).

If SWR is less than or equal to LLD, record "<LLD". Otherwise, Sample Activity = (SWR-BR)/E, where E is the instrument efficiency found on the calibration sticker

Sample Activity <LLD dpm

FSE Signature

SigPlus2

Hospital: Harper Hospital
Address: 3990 John R St
Detroit, MI 48201

Note to licensee: This report should be reviewed by your Radiation Safety Officer and filed for future reference.

Contact name: Suzie Garvon

GERSHENSON RADIATION ONCOLOGY CENTER
HARPER HOSPITAL
DETROIT, MICHIGAN

RADIATION MONITORING FOR INCOMING AND OUTGOING SHIPMENTS

Date: 10/22/04 Incoming or Outgoing (circle one)
Isotope: Ir¹⁹² ROC Shipment #: 04-02
Activity 3.2 Ci Number of sources 1 D35A0877

Exposure Survey

Maximum mrem/hr at 1 meter: 0.069 (< 10 mrem/hr)
Maximum mrem/hr at surface: 1.170 (< 200 mrem/hr)
Meter: INSPECTOR Calibration date: 3/15/04
Battery/check source ok:

Whipe test with 2" NaI well counter in R.O.C. physics lab.

Bias voltage +800V (Canberra HV Power Supply type 3102). Preamplifier output to Canberra main amplifier (type 2022): 30x, Coarse 30, Fine 10.00, shaping 0.5 μ s. The unipolar or bipolar output to constant fraction timing single channel analyzer (TSCA, Caanberra type 2035A): discrimination 0.025 - minimum, energy window ΔE 10.00 - maximum, input shaping 0.1-0.5 μ s. The +ve output to Canberra (type 2071A) or EG&G/Ortec (type 871) scalar.

MDA 72 dpm
Action level 733 net cpm/100 cm² (for I125)
Background 77 counts in 0.5 minute
100 cm² wipe 95 counts in 0.5 minute
Net cpm/100 cm² 36
Wipe test ok?

Signature: M. Syrean

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 FedEx First Overnight Earliest next business morning delivery to select locations*
 FedEx 2Day Second business day*
 FedEx Express Saver Third business day*
FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service Packages over 150 lbs.
 FedEx 1Day Freight* Next business day**
 FedEx 2Day Freight Second business day**
 FedEx 3Day Freight Third business day**
* Call for Confirmation: _____

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 Other

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 HOLD Weekday at FedEx Location
 HOLD Saturday at FedEx Location
Does this shipment contain dangerous goods?
 No Yes As per attached Shipper's Declaration
 Yes Shipper's Declaration not required
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 Third Party
 Credit Card
 Cash/Check

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FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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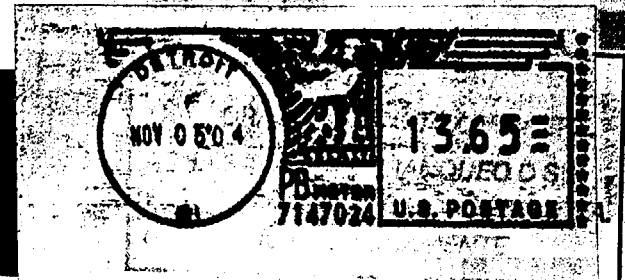
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