			Disposition							
£	License	e: Best Theratro	nics							
Eve	nt Descriptio	n: AGREEMENT	STATE REPORT	INVC	LVING LEAKI	NG IRRADIATO	R SOURCE			
License N	lo:	45-31299-01	Docket No:		03037620	MLER-RI:	2009-022			
Event Da	Event Date: 11/3/09 F		Report Date:		11/6/09	HQ Ops Event	#:			
1.	REPORTING REQUIREMENT									
	10 CFR 20.1906 Package Contamination						R 30.50 Repor			
	10 CFR 20.2201 Theft or Loss				10 CFR 35.3045 Medical Event					
		FR 20.2203 30 Day	/ Report			Licen	se Condition			
0	X Othe					L				
2.										
		ediate Site Inspecti	on		Inspector/Date (Dennis Laury					
	<u>y</u> Special Inspection				Inspector/Date 2 12/15/09					
		phone Inquiry			Inspector/Date					
	Preliminary Notification/Report				Daily Report					
		nation Entered in F	RI Log			Review at	Next Inspection	n		
	Repo	rt Referred To:		:						
3.		EVALUATION	r							
	↓ Desc	ription of Event			Corrective Action	ons				
	<u>y</u> Level	ls of RAM Involved			Calculations Ac	dequate				
	Caus	e of Event	l	X	Additional Infor	mation Requeste	ed from License	е		
4.	MANAGEN	MENT DIRECTIVE	8.3 EVALUATION	l 						
	Relea	ase w/Exposure > I	imits		Deliberate Misu	use w/Exposure :	> Limits			
	Repe	ated Inadequate C	ontrol		Pkging Failure	>10 rads/hr or Co	ontamination>10	000x Limits		
	Ехро	sure 5x Limits			Large# Indivs v	w/Exp>Limits or I	Medical Determ	inistic Effects		
	Poter	ntial Fatality			Unique Circum	stances or Safeg	juards Concern	s		
	If a	ny of the above ar	e involved:							
	Cons	idered Need for II7	-		Considered Ne	ed for AIT				
	De	cision/Made By/Da	te:							
5.	5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical event									
	Time	liness - Inspection	Meets Requireme	nts (5	days for overdo	se / 10 days for	underdose)			
	Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for under Medical Consultant Used-Name of Consultant/Date of Report:						-			
Medical Consultant Determined Event Directly Contributed to Fatality										
	Device Failure with Possible Adverse Generic Implications									
		HQ or Contractor Support Required to Evaluate Consequences								
6.		SPECIAL INSTRUCTIONS OR COMMENTS								
	UNSI REVIEW		nspector Signature ranch Chief Initial ns Word\LER FO	s: (		Minl	Date:	1/6/10 1/6/16 Rev. 02/25/05		

# RI - DNMS Licensee Event Report Disposition

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Texas Incident # I-8685.

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General Information or Other	Event Number: 45479
Rep Org: TEXAS DEPARTMENT OF HEALTH Licensee: TROXLER ELECTRONIC LABORATORIES, INC. Region: 4 City: State: TX County: License #: L01296 Agreement: Y Docket: NRC Notified By: RAY JISHA HQ OPS Officer: DONG HWA PARK	Notification Date: 11/06/2009 Notification Time: 14:31 [ET] Event Date: 11/06/2009 Event Time: [CST] Last Update Date: 11/06/2009
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): MICHAEL HAY (R4DO) ANDREA KOCK (FSME)

# Event Text

# AGREEMENT STATE REPORT - LOST AND RECOVERED TROXLER MOISTURE DENSITY GAUGE

On November 6, 2009, the State of Texas reported that a Troxler moisture density gauge was lost and recovered by the Troxler Electronic Laboratories, Inc. The event occurred approximately one to two years ago. The density gauge was recovered two days after it was lost. The State of Texas will provide updates as more information is available. The gauge contained an 8 mCi Cs-137 and a 40 mCi Am/Be-241 source.

Texas Incident # I-8686

General Information or Other	Event Number: 45480		
Rep Org: NEW YORK STATE DEPT. OF HEALTH Licensee: Region: 1 City: State: NY County: License #: Agreement: Y Docket: NRC Notified By: ROBERT DANSEREAU HQ OPS Officer: ERIC SIMPSON	Notification Date: 11/06/2009 Notification Time: 15:03 [ET] Event Date: 11/03/2009 Event Time: [EST] Last Update Date: 11/06/2009		
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): RICHARD BARKLEY (R1DO) ANDREA KOCK (FSME)		

# Event Text

AGREEMENT STATE REPORT INVOLVING LEAKING IRRADIATOR SOURCE

New York does not publish the name, address or license number of its licensees in incident reporting to the NRC.

The following information was received via e-mail:

"Event description: Best Theratronics was performing a security upgrade (hardening) on an AECL Gamma Cell 40 irradiator, containing AECL Model Number C-161 cesium-137 sources, and discovered radioactive contamination indicating a 'leaking' source. Coincidently, [Department of Health representatives] arrived at the licensee's facility for a planned site visit at noon on 11/03/09, and were able to assess the situation with the vendor and Radiation Safety Officer (RSO).

"The engineers noticed that one of the pneumatic source drive mechanisms moved noticeably slower than the other. They removed the pneumatic drive assemblies and manually moved the source drive rods. They noted excessive resistance to movement and noticed corrosion (rust) on the source rod. They wiped the rusty material and measured the wipe with a thin-window GM detector, which indicated radioactive contamination. Further sample analysis confirmed removable cesium 137 (isotopic analysis) in excess of the leak test limit. The contamination is limited to the areas of the source drive components only. Radiological surveys were performed on personnel, tools, the room, etc. with negative findings. In consultation with the service engineers, the RSO, and [Department of Health representatives], the decision was made to abandon the hardening procedure. The unit was reassembled and taken out of service. DOH will work with the licensee to determine what options, if any, exist for disposal of the unit. DOH will also follow-up with Best Theratronics in regard to their procedures for PM (i.e., is leak testing performed in areas such as the drive mechanism during routine PM service or during hardening). Also, we will inquire about actions such as a notice to owners and/or assessment of other licensee's units, etc.

"Contamination on both source rods may indicate a generic source integrity issue."

General Information or Other	Event Number: 45481		
Rep Org: CALIFORNIA RADIATION CONTROL PRGM Licensee: LANDMARK CONSULTANTS Region: 4 City: PALM DESERT State: CA County: License #: 3931 Agreement: Y Docket: NRC Notified By: ROBERT GREGER HQ OPS Officer: JOE O'HARA	Notification Date: 11/06/2009 Notification Time: 23:27 [ET] Event Date: 11/06/2009 Event Time: [PST] Last Update Date: 11/06/2009		
Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE	Person (Organization): MICHAEL HAY (R4DO) ANDREA KOCK (FSME) ILTAB VIA EMAIL () MEXICO VIA FAX ()		

This material event contains a "Less than Cat 3" level of radioactive material.

# Event Text

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AGREEMENT STATE REPORT - STOLEN TROXLER GAUGE

The following notification was received from the state via e-mail:

"A Troxler moisture density gauge (model 3411, serial # 7078) was stolen from an open pickup truck sometime between 7 am and noon on 11/6/09. The gauge was taken out of the transportation container, which was secured in the back of the open pickup truck. The RSO does not know if the transportation container was locked.

"The lost gauge was reported to the Riverside Sheriff's Department. The RSO was informed that a reward should be offered for return of the gauge. He indicated he will discuss posting of a reward with the company owner. "

THIS MATERIAL EVENT CONTAINS A "LESS THAN CAT 3" LEVEL OF RADIOACTIVE MATERIAL



2 December 2009

**Distribution List** 

SUBJECT: Cesium 137 Contamination Found In A Gammacell 40 Research Irradiator

Dear Sirs and Madame:

Attached please find a copy of the Safety Bulletin that Best theratronics is sending to all Gammcell 40 users to advise them of the potential hazard of Cs-137 contamination when servicing those devices as a result of the Roswell Park incident that occurred on 3 November 2009.

For more information, queries or comments, contact me at the contact points that follow below.

C. Douglas Beatty, CD, CPHI(C), CQA Radiation Safety Officer, Compliance

Tel: (613) 591-2100 ex 2177 Fax:(613) 591-5680 E-mail: <u>doug.beatty@theratronics.ca</u>

DISTRIBUTION LIST

Attention: Mr. Robert Dansereau State of New York Department of Health Troy, NY, NY 12181-2216

Attention: Mr. John Jankovich Division of Materials Safety and State Agreements U.S. Nuclear Regulatory Commission 11555 Rockville Pike Rockville, MD 20852

413 March Road, Ottawa, ON K2K 0E4 Canada phone 613 591 2100 fax 613 591 6627 Attention: Ms. Elizabeth Ullrich Nuclear Materials Safety Branch U.S. Nuclear Regulatory Commission, Region 1 475 Allendale Road King of Prussia, PA 19406-1415

Attention Mr. Peter Fundarek Canadian Nuclear Safety Commission 280 Slater St, Po Box 1046 Ottawa, ON K1P 5S9

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# SAFETY BULLETIN

2 December, 2009

To: Users of Gammacell 40 Research Irradiators

From: Best Theratronics Compliance

SUBJECT: Potential Internal Cs-137 Contamination of Gammacell 40 Irradiators

The purpose of this communication is to advise users of Gammacell 40 (GC40) Research Irradiators and their maintenance/service personnel of a recent occurrence of cesium-137 contamination.

Best Theratronics service personnel were at a site undertaking special work on a GC 40 (manufactured in 1975) that required them to remove the cabinet, pneumatic drive cylinders and end caps to the source drive. Rust/corrosion was noted on the cylinders and subsequent wipe tests revealed contamination on both upper and lower drives. No persons, equipment/tools or the room were contaminated. The unit was reassembled and taken out of service by the licensee.

This type of work is not normally conducted in regular servicing and maintenance but a potential hazard is present when performing certain servicing (dismantling) procedures. These parts are not accessible to the operator and there is no hazard under normal operating conditions.

Users can continue to safely use their unit in accordance with standard operating procedures and radiation safety precautions. No additional action is required except in the case where dismantling work is being planned and advice should be sought from Best Theratronics at the contact points below. All third party service personnel should also be made aware of this incident when performing this type of work and should proceed with caution.

We invite your questions, comments and concerns which can be directed to the undersigned at the contact numbers shown. To schedule a visit by a Service Technician, please contact Customer Service at <u>service@theratronics.ca</u> or call us in Canada at 613-591-2100 ext.1080.

C.Douglas Beatty, CD, CPHI(C) CQA Radiation Safety Officer, Compliance Tel: (613)591-2100 ext.2177 Fax: (613) 591-5680 E-mail: doug.beatty@theratronics.ca

413 March Road, Ottawa, ON K2K 0E4 Canada phone 613 591 2100 fax 613 591 6627 www.theratronics.ca

