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Quality Services Laboratories, Inc. Plus

copy

MHG SERVICES

DATE: 11-3-05 FROM: Bill JOHNSTON

TO: JUDY

COMPANY: NRC

FAX NO.: 610-337-5269

NO. OF PAGES INCLUDING THIS ONE: ~~3~~ 5

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<b>CORRECTIVE AND PREVENTIVE ACTION</b>		
Administrative Procedure: QC-8.5.2/3	Revision: 0	

**Attachment A**

**Block 1**

<b>CORRECTIVE/PREVENTIVE ACTION REQUEST</b>		Request #:2005-19	Date:11/3/05
Department/Vendor: 5940		Resp. Mngr.:	Johnston/Ostroff
Area/Operation:			
Originated By: (Name/Title)	Bill Johnston/Bob Slack Rad Safety Mgr./ Director of Regulatory Affairs		

**Block 2**

<input type="checkbox"/> Actual X	<b>NONCONFORMING CONDITION</b>	<input type="checkbox"/> Potential
Failure to follow Industry and Company Radiation Safety Procedures to properly return the radioactive source to the shielded condition within the exposure device resulted in a potential overexposure to the radiographer.		
Response Due Date	Originator's Signature	Resp. Manager's Signature
Immediate	William Johnston <i>[Signature]</i>	Johnston/Ostroff

**Block 3**

<b>CORRECTIVE ACTION</b>	Indefinite suspended radiographic activities for the radiographer 30 days monitored in-shop activities for the assistant. Both individuals to receive documented Re-instructions in all aspects of the violated safety regulations to include but not limited to 1) the proper method of source positioning (cranking the source out fully, cranking it back in fully, and then attempting to crank it out again to assure the source is fully retracted and automatically locked assuring that the source is secured; 2) the proper method of surveying, beginning with the proper use of the proper scale on the survey meter, viewing of the survey meter reading, 3) proper locking of the camera, 4) proper survey of the camera, guide tube and area.
Additionally, we intend to pursue the acquisition of radiation activated, battery powered, warning light to be placed in proximity to the camera exit port in the radiation area. These lights would be activated as long as the source is exposed.	
<b>ROOT CAUSE</b>	Failure to ensure compliance with Regulatory requirements and the Company's Operating and Emergency Procedures.
<b>PREVENTIVE ACTION</b>	All Divisions will receive a notice of this incident with instructions to have all radiographic personnel instructed in each element of the corrective action as regards the documented re-instruction points ( numbered above ).

<b>Implementation Due Date</b>		<b>Approved Mgmt.(title, sign, date)</b>		<b>Approved QA (title, sign, date)</b>	
11/30/05		George Huber		Rick Javorka	
<b>Block 4</b>					
<b>Date Due:</b>	12/15/05	<b>FOLLOW UP</b>		<b>New Due Date:</b>	
<b>Approved</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<b>Approved</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<b>Approved by: (sign, date)</b>			<b>Approved by: (sign, date)</b>		

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From: Bill JOHNSTON - CONAM/QSL RADIATION SAFETY MGR.  
(TRAINER, PA. FACILITY)

TO: JUDY JOUSTRA (NRC)

RE: [REDACTED] INCIDENT OF 10/27/05

CALCULATIONS FOR GAMMA EMISSIONS BASED ON THE INVERSE SQUARE LAW.

BASED ON [REDACTED] HAVING HIS LEFT HAND IN CONTACT WITH THE STAINLESS STEEL SOURCE CAPSULE HOLDER FOR A PERIOD OF 1 SECOND. (RE-ENACTMENT WITH [REDACTED] ON 11/3/05 WAS 3/4 SEC, PER AEA TECHNOLOGY, THE THICKNESS OF THE HOLDER IS .040."

USING PREVIOUS CALCULATIONS THAT WITH 21.8 Ci THE DOSE RATE IS 32.24 R/SEC AT 3/8" OR .375"

$$\frac{32.24}{X} = \frac{.040^2}{.375^2} \text{ so } \frac{32.24}{X} = \frac{.0016}{.140} \text{ so } .0016X = 4.5136$$

X = 2821 R/SEC POSSIBLE DOSE TO KOREY'S LEFT HAND

IS 2821 REM

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AEA TECHNOLOGY GUIDE TUBE PART# TAN 48906

OUTSIDE DIAMETER .580" TO .605"

INSIDE DIAMETER .375"  $\pm$  1/64"

MAXIMUM DIAMETER OF STAINLESS STEEL  
CAPSULE HOLDER PART# 87501 IS .250"