



**American Radiolabeled
Chemicals, Inc.**

101 ARC Drive
Saint Louis, MO 63146 USA
Phone: 314-991-4545 or 800-331-6661
Fax: 314-991-4692 or 800-999-9925
Web: <http://www.arc-inc.com>
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Friday, 8 February, 2008

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

Gentlemen:

Reference: License No. 24-21362-01

American Radiolabeled Chemicals, Inc (ARC) is replying to the concerns raised during the inspection performed during the period 22 January-25 January 2008. The concerns are listed below, with ARC's actions taken to this date, as well as proposed actions not yet completed.

Immediately after the informal exit meeting a Radiation Safety Committee Meeting, with all ARC personnel invited, was held. A copy of the Minutes of this meeting is given as Attachment One.

Contamination outside Restricted Areas

Concern:

Contaminated items on personnel – clothing, shoes, lunch boxes and vehicles.
Contamination on lunch boxes was in excess of 100,000. Contamination on a child seat in an employee vehicle was in excess of 425,000 dpm.

Action taken:

1. A detailed survey of personal items was made. All contaminated items were either cleaned or discarded to Rad Waste. Chairs, tables, counter etc in the lunch rooms were surveyed. All were cleanable except the fabric covering on the chairs. The contaminated fabric was discarded to Rad Waste and the remaining non-contaminated chairs were discarded.
2. All private and company vehicles (exception, two vehicles belonging to individuals on vacation) were surveyed and cleaned. Before and After surveys were documented. The documentation is on file.
3. The ceramic tile used on the floors of areas outside the labs was tested (new tile taken from new boxes in the warehouse) this gave an average background reading due to naturally occurring radioactivity of 120 cpm with a frisker calibrated for C-14.

RECEIVED FEB 12 2008



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Proposed actions:

1. The lunch room areas will be surveyed (direct frisk) daily and cleaned daily. Workers in both buildings have been warned that if we are unable to control the contamination in the lunchrooms, the privilege will be revoked by the end of February. The results will be evaluated in 2-3 weeks
2. Weekly detailed frisker surveys of the areas outside the lab have been instituted. These surveys are being documented.
3. All procedures are under review. The intent is to clarify and remove ambiguity.

Staff perception of safety.

Contamination is coming from lack of good practice from lab personnel. Radiation safety personnel are not the clean up crew. The contamination would be improved by more diligence of lab personnel.

Concern:

Personal protective equipment is not being used properly by staff. Lab personnel are exiting restricted areas without surveying hands, shoes and clothing.

Actions taken:

The need for these surveys to be taken on every exit is being stressed by personal, one on one, training by the Senior Chemist and the RSO.

On Wednesday, 6 February, a refresher class was held by the RSO for all chemists. This class covered the nature of contamination; controlling the spread of contamination; and proper survey technique. A sign in sheet listing the attendees is attached. (Attachment Two)

Heavy cloth aprons covering from upper chest to the knee have been purchased and given to each chemist. These aprons are worn under the lab coat, in order to protect the street clothes from possible penetration of the lab coat. This will cover the area contaminated when leaning into hoods etc.

Proposed action:

Sleeve protectors covering from the wrist to above the elbow have been ordered for chemist use.



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Concern:

Lab personnel are wearing lab shoe covers as slippers, this does not protect the back of the shoes.

Actions Taken

As of Monday 11 February, we will stop using shoe covers. Each chemist has been instructed to wear separate shoes while in the lab. Before entering the lab, they will leave their personal shoes outside and change to wearing lab only shoes. See Attachment Three.

Concern:

Desk area – lab coats used to do production work should not be used at the desk area. Ideally, it would be better for the desks to be in a separate area. If this is not possible, personnel should wear a separate lab coats as the production coats are contaminating the desk areas.

Action taken:

ARC has decided to treat all desks in the laboratories as contaminated. Chemists have been instructed to keep their desks as clean as practical. Chemists have been instructed to change lab coats and gloves before sitting at the desk.

Control of Contamination

Concern:

ARC needs to improve their efforts to control contamination

Action taken:

This is ongoing, improvement is noted, more work needed.

Concern:

ARC needs to conduct adequate surveys

Actions taken:

Ongoing, see above. Frisker surveys will be documented

Concern:

Survey equipment needs to be evaluated. Pancake probes need to be ordered and replaced in areas where they are missing. This may be why the lab personnel are not fully surveying before exiting restricted areas. Some of these locations are inconvenient to lab personnel.



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Action Taken:

Out of service, six meters and 10 probes, survey equipment has been sent for repair. Additional pancake probes have been ordered.

Proposed actions:

An additional four meters and three probes will be sent for repair on Monday.

Concern:

Liquid waste was discharged into pipe outside building 100. Normally this should be done from restricted areas. If discharge is to be done from 100, we should check before and after discharge after to make sure surveys are acceptable. Maintenance personnel doing the disposal should ensure to wear appropriate clothing.

Comment:

This was a very unusual occurrence, in fact the only time it was done. If this type of discharge is needed in the future, it will be directly supervised by the RSO.

Concern:

Package receiving area – door should remain locked.

Action taken:

The door is locked. All personnel have been informed of this requirement. The door lock is checked frequently by the RSO.

Proposed action:

A combination door lock will be placed on the inner door to shipping. Locking this door when shipping is unattended will permit access to package pick up and delivery.

Radiation safety committee

Concern:

Meeting should be well documented.

Action taken:

Weekly meetings have been re-instituted. The first meeting was held immediately after the conference call on Tuesday, 5 February. See Attachment One.



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Records

Concern:

Bldg 400 decontamination records need to be located.

Action Taken:

This is the "old" building 400. ARC's copy of the letter from NRC approving the decommissioning survey and a copy of the License amendment deleting that building from the license have been located. These records, with those all ready reviewed should be sufficient to close this item.

Concern:

Septic tank survey and location.

Action taken:

All of ARC's records of this occurrence have been located

March Inspection

It is our understanding that the March inspection will include, but is not limited to, the following.

1. Check septic tank assurance.
2. Shipping procedures.
3. Contamination of personal items

If additional information is required, please contact Regis A. Greenwood, CHP, directly.

A handwritten signature in black ink, appearing to read 'Surendra K Gupta'.

Surendra K Gupta, PhD.
President, American Radiolabeled Chemicals, Inc
Chair, Radiation Safety Committee

CC: Radiation Safety Committee File

Minutes for Post NRC Inspection Meeting

2008-01-25

Attendance:

Dr. Gupta, Regis, Janard, Kamal, Ahsok, Ganesh, Vora, Chin, Xuejun, Namin, Sales, Jesimina, Richard, Orien, Ning.

Location: ARC 400, 2nd floor

Time: 1230 – 1:40

Radiation Safety Committee members present:

S.K. Gupta, Chair
R.A. Greenwood, Vice Chair
J. Selvasekeran
Zhang Ning

All other attendees were invited guests

Dr. Gupta informed the committee of the inspection results. The inspection was held from 01/22 – 01/25.

The Committee agreed to the following:

1. emphasized the need for everyone to wash hands and thoroughly survey before leaving the restricted area;
2. Building 200 sink needs to be finished as soon as possible;
3. During the coming week,, from 01/28-02/01, everyone should survey one's own car first, then Ning will re-survey all cars. Ning should finish this survey report before Regis returns from HPS Midyear meeting.
4. whether we should set up the lunch room in building 400 was discussed, but not decided
5. Dr. Gupta suggest everyone buy new shoes and put them in fixed area in each lab. Everyone should change a shoes and socks
6. new show covers with larger size was recommended
7. Regis said he would provide a refresher training class on contamination control and personal surveys for everyone entering the labs, when he returns.
8. Sample and empty the holdup tanks every evening before leaving and check the tanks every morning to avoid overflow.

9. The next Radiation Safety meeting will be hold in the week when Regis returns. Every chemist or maintenance tech is welcome to attend.
10. Lab coat with sleeve protection will be provided.
11. Starting the week of the 4th, ARC will hold a telephone meeting with NRC every week, until their second inspection in March.

Their being no further business, the meeting was adjourned at 1340

Regis A Greenwood

Instructor

2/6/05

Contamination Control

Attendees

Tanarathnam Sivasakaran

Somashekhar

SALISH H GUPTA

Selva Gopal

SURENDRA GUPTA

Murthy Gopal

Chan Loh

Namin Kang

~~APK~~ Arif

Ashok P. Kammath

Suresh Ganeshray

Sriniv

Xuejun Yuan

Xuejun

zhangning

Yuan

REC-15



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February 7, 2008

All Lab Employees:

RE: Lab Shoes

As a result of the recent NRC inspection it has become mandatory that all employees obtain slip on shoes to be worn in the labs. ARC will reimburse you the cost of these shoes. These new shoes will be worn in place of your current everyday shoes. Your everyday shoes will be kept in the change area and are NOT to be worn in the lab.

These new shoes are to be worn beginning on Monday, February 11th.

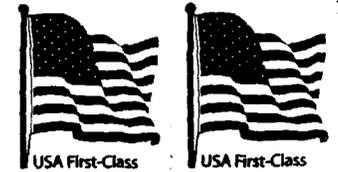
Please see me if you have any questions.

A handwritten signature in black ink, appearing to read 'John C. Gray II', is written in a cursive style.



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**UNITED STATES NUCLEAR REGULATORY COMMISSION
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ATTN: GEORGE (MIKE) MCCANN

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