



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>
Email: arcinc@arc-inc.com

10 January 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Reference: Docket No 030-20567
License No: 24-21362-01

Subject: Report of Exceeding Constraint in 10CFR20.1101(d)

Gentlemen,

This report is submitted in accordance with 10CFR20.2203(b)

American Radiolabeled Chemical, Inc (ARC) has been measuring the airborne concentrations at the intakes to our Building 400, the closest building where members of the public are found. There are four individual intakes for the four zones of the building. As these zones are not mixed, the zones are treated separately.

During the calendar year 2011, while significant improvement was made, the dose in a year to the exposed members of the public was determined to be above the constraint for one zone.

<u>Zone</u>	<u>2011 results</u>	<u>2010 results (prior year</u>
1.	17.3 mrem in a year	55.9 mrem in a year
2.	8.2 mrem in a year	37.8 mrem in a year
3.	7.1 mrem in a year	10.0 mrem in a year
4.	6.9 mrem in a year	7.9 mrem in a year

The dose limits for the general public found in 10CFR20.1301(a)(1) were not exceeded.

Corrective steps taken:

Reduction in the amount of Tritium used in each reaction;
Increased use of cold traps for Tritiated water

IE71
NMS



Corrective steps planned:

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1. Requested and received a license amendment request to increase the effective stack height to increase dilution and dispersion of effluent. This will eliminate any "wake effect" from Building 300. The modifications have been bid, and will start in February.
2. Calculation of the public dose monthly *vice* annually.
3. Requested and received a license amendment to permit the use of the COMPLY code on a monthly basis for screening purposes.

Actions to prevent recurrence:

ARC feels that the steps taken and planned will prevent the total annual dose from exceeding 10 mrem in a year.

Determination of the dose on a monthly basis will enable us to make any additional changes required prior to the year ending.

Unofficial use of COMPLY with January's data shows a projected annual dose within the constraint.

Thank you for your attention in this matter.

Sincerely,

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

Surendra K. Gupta, PhD
President
American Radiolabeled Chemicals