Isotope Measuring Systems Inc.
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May 7, 1996

Mr. Doug Broaddus
US Nuclear Regulatory Commission
Sealed Source Safety Section
Source Containment and Devices Branch
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards
Commercial Section
Washington, D.C. 20555
USA

Dear Doug:

Thank you for bringing to our attention the typographical error regarding the ANSI Classification. Attached is the revised classification. For the free standing TIAS 211, "38" is replaced with "65." For explanation as to why the closed and open classifications are the same, please see the following paragraph.

We confirm that the ANSI classification for IMS Model 5321 Gauge Series is correct. We can provide the following answer to the question as to how the 5 cm classification (20 mrem/hr) and 30 cm classificaiton (20 mrem/hr) can be the same: Please note that the classifications cover a considerable range, i.e., Class 5 for 5 cm = 20 mrem/hr and Class 4 for 30 cm = 20 mrem/hr. The actual readings may have been 7 mrem/hr and 19 mrem/hr, respectively and thus both requiring a classification above 5 mrem/hr.

Best Regards,

Susan K. Burnet
President IMS, Inc.

cc: Steve Smith, Timken
Sue Engelhardt, Engelhardt and Associates
Attachment: Revised Page 12

4. ANSI Classification

The IMS Device TIAS 211 Heavy Metal Shielding (with integral shutter mechanism) is used in the IMS Model 5321 series of multi-channel tube gauges. Based on the test procedure and results presented above, the IMS TIAS 211 and the IMS Gauge Model 5321 series have the ANSI N538 classification described below.

4.1 ANSI Standard N538

The American National Standard N538 was issued in October 1979 and is entitled **Classification of Industrial Ionizing Radiation Gauging Devices**. This standard applies to the radiation safety aspects of gauging devices.

4.1.1 For the TIAS 211 (Free Standing)

The ANSI classification for the free-standing Heavy Metal Shielding Device TIAS 211 is

ANSI - 43 - 565 - 565 - R1

4.1.2 For the IMS Model 5321 Gauge Series

The ANSI classification for the IMS Model 5321 multi-channel tube gauge with the TIAS 211 installed is

ANSI - 43 - 543 - 885 - R1

Note Regarding OFF position measurements for the Model 5321:

The 5 cm measurement position is in the measuring gap. The 30 cm and the 100 cm positions are outside the gap as required to achieve the proper measurement standoff distances. The measurement gap in this case is a circle with an inside diameter of about 300 mm. All measurements were taken from the nearest accessible surface.

See 5/6/96 Def call.

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Facsimile Cover Sheet

To: Doug Broaddus
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From: Susan K. Burnet
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Date: 96/5/6
Pages including this cover page: 3

Comments: ANSI Classification

Please see attached.