





Certificate Number: 1219018PW

Date of Issue: 15 May 2012

Page 1 of 1 pages

HSE ADS ACCIDENT PERFORMANCE TEST REPORT

Issued By:

Nuvia Limited - A56 Winfrith, DT2 8WQ Tel: 01305 755221

www.rpiservices.co.uk

Dosimetry service (ADS Landauer Europe Ltd

Contact name

Dr C Perks

Postcode OX5 1JE

Dosemeter type Luxel+

Job Reference

JRW2145

Receipt of dosemeters by dosimetry service 08 May 12 09:45

Date of irradiation

02 May 2012

Receipt of 8 hour report by test laboratory 08 May 12 12:38

Dispatch of dosemeters 03 May 2012

Receipt of dosemeters 19 April 2012

Dosimetry service response time 2 hrs 53 mins

Date of receipt of final ADS readings: 10 May 2012

| Results | | | | | | |
|-----------------|-----------------------------------|----------------------------|----------------|-------|-----------------|----------------------|
| Dosemeter ID | True Absorbed Dose (mGy) | Reported Doses from ADS | | | | Relative Standard |
| | | < 8 hour (mGy) | Final (mGy) | Ratio | Bias (%) | Deviation (%) |
| 1990797A | | <1000 | 262 | 0.987 | | |
| 1990800A | | <1000 | 262 | 0.987 | | |
| 1990801A | 265 | <1000 | 259 | 0.976 | -0.60 | 1.86 |
| 1990807A | | <1000 | 264 | 0.995 | | |
| 1990809A | | <1000 | 272 | 1.025 | | |
| 1990796A | | >1000 | 3021 | 1.025 | | |
| 1990798A | | >1000 | 3066 | 1.041 | | |
| 1990799A | 2946 | >1000 | 3075 | 1.044 | 3.94 | 0.79 |
| 1990805A | | >1000 | 3065 | 1.040 | | |
| 1990810A | | >1000 | 3083 | 1.047 | | |

Overall mean bias 1.67%

Overall relative standard deviation 2.70%

Performance Test Result PASS Band A

Signature of Qualified Person

Andrew Galpin IEng MIET

Notes:

- 1. Air kerma rates are derived from measurements made by a dosemeter calibrated at the NPL.
- 2. The uncertainty in air kerma rate is +/- 3%, and is for a confidence probability of not less than 95%.
- 3. A factor of 1.1 mGy per mGy is used to convert air kerma values to absorbed dose to tissue. This factor is derived from data published by UKAS and the NRPB.
- The dosemeters are irradiated in free air mounted on an expanded polystyrene board, using a collimated 137Cs source.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards and to the units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.