			Valmet Au 3100 Med Suite 250 Norcross, FAX: PHONE:	tomation (USA) in llock Bridge Road Ga. USA (404)-446-879 (404)-446-781
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THE TAPID RADIATION PROFILES WITH THE THE MILL 200 MCI SOURCE, Jim

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Ve	ALMET AUTO	MATION	4044468794	P.02	
06/07/94	10:59	STUK ST	0/4 KRS +35	001	
Certificate of Calibration	n				
Issued by: Winfrith Gam	(bd)				
Environment and Energy Winfrith Technology Centre Dorchester Dorset		NAMAS CALIBRATION No 0210			
a j murf	ÂY			AFATECHNOLOGY	
Approved Signatory: J A SIME	SON	Date of Is	^{sue:} 30 Jun 1993	ب الله الله المراجع الم	
<u>Instrument Type;</u> Smar	t ION S	er - No - 1-	2144 <u>Certificate No.</u>	<u>:-</u> 06934297	
METHOD: The instrument with its detector ORIENTATION: The instrum to the close	vas expuse or on the ment was mu med shutte	i to a coll peam axis, punted vert ".	imated beam of gamma ically with the beam	radiation normal	
	DEC	3 11 YC			

					REOL	7613				
Sou	Irce	1	Range	Duse	Rate	Observed	Reading	Fluctuation	(Note	4)
Cs	137	50	mSv/h	50 0	mSv/h	FSD				-
Ċs	137	50	mSv/iv	40	mSv/h	39.9	mSv/h			
Cs	137	50	mSv/h	10	mSv/h	9.5	m5v/h			
Cs	137	5	mSv∕h	4	mSv/h	4.02	mSv/h			
Cs	137	5	m8v/h	1	mSv/h	1.03	m3v/h			
Cs	137	500	µSv/h	400	µSv/h	400	µSv/h			
Cs	137	500	µSv∕n	100	µSv/h	98	µSv/h			
Cs	137	50	µ8v/h	40	µ\$v/h	40.4	µSv/h			
Сs	137	50	µSv/h	10	µSv/h	10.2	µSv∕h			
An	241	50	μ≌γ/h	25	µSv/h	22.6	µ5v∕h			
	B/G	50	uSy/h	0.11	usv/h	Q	uSv/h			

POLAR RESPONSE CHECKS:

Additional measurements were made with the Am-241 beam normal to each side face and to the front end face. The observed readings were: - 21.5 µ8v/h, 20.4 µSv/h, 21.8 µ8v/h,

respectively.

Unsealed ignisation chamber. - Standard temperature and pressure 20 degrees Celsius, 1013 millibars.

Signed:-

Notes 1. Ambient dose equivalent rotes are derived from measurements made by a dosemeter calibrated at the NPL, and assume that an air kerma of 1 By = 1.2 Sv for Co-137, 1.15 Bv for Co-60 and 1.74 Sv for Am-241. 2. The uncertainty of dose rates 2 µBv/h and higher is 13%, below 2 µSv/h is 15%, and background is 110%. The uncertainty in the dose rates from Am-241 is 410%.

- dose rates from Am-241 15 ±10%.

user races must be for a confidence probability of not less than 95%. 3. The readings guiled are eye averages observed after the instrument has been exposed to a constant dose rate for a period sufficiently long to enable it to reach equilibrius. 4. If the fluctuation of the stand dose rate of a page 1 Wednesday July 6, 1994 3:57 -- From '358 0 75988248' -- Page 1

93 LOOD THE AIDIDIO AND BOXLOUD Observed

eputhy map greater than 2204 of the average t

readings have been stated.

3. before using the instrument the user should be familiar with its characteristics (energy dependence, directional dependence etc.). Such information may be obtained from a type test report.

The certificate is issued in accordance with the conditions of accreatiation granico by the National Moasurament Accredition Service, which has assessed the measurement capability of the aboratory and its traceability to recognized national standards and to the units of measurement realised at the

corresponding national elandards taboratory. Copyright of this certiticate is owned joinly by the Crown and the issuing laboratory and may not be reproduced other than in full except with the prior written approval of the Head of NAMAS and the issuing laboratory.