

APPENDIX E.5.3.1 - SUPPORT BUILDING FACADE NOISE BREAKOUT

Job Number: JAL 5201
 Client: AWE Aldermaston
 Date: 22/04/2010
 Consultant: DG
 QA: DL

Internal to External Noise from Support Building (BS 12354-4:2000) [*1]

reference Annex G of BS 12354-4:2000

Segments		Quantity	Octave bands with mid frequency in Hz							
			63	125	250	500	1 k	2 k	4 k	8 k
All segments		$L_{p,in}$	83	82	83	78	73	68	63	58
All segments		C_d , Annex B	-5	-5	-5	-5	-5	-5	-5	-5
Openings										
Opening segment	D=1 Side 1	$D'[*2]$	4	7	10	12	15	16	13	12
		$10 \lg S/S_0$	16	16	16	16	16	16	16	16
		L_w , equation (4)	90	86	84	77	69	63	61	57

Sound Power

Segment ID	Segment Name	dB(A)	Octave bands with mid frequency in Hz							
			63	125	250	500	1 k	2 k	4 k	8 k
D=1	Side 1	79	90	86	84	77	69	63	61	57

[*1] - British Standards Institution. (BSI) (2000). British Standard (BS) 12354-4: Building acoustics – Estimation of acoustic performance of buildings from the performance of elements - Part 4: Transmission of indoor sound to the outside. BSI. London.

[*2] - D' assumes insertion loss of 270 mm acoustic louvre (eg Kingfisher KA Acoustic Louvres - KA300)