

APPENDIX D.5.2.2 - OPERATIONS BUILDING FACADE NOISE BREAKOUT ASSESSMENT

Job Number: JAL 5201  
 Client: AWE Aldermaston  
 Receptor: Spring Lane Cpttage  
 Date: 22-Apr-10  
 Consultant: DG  
 QA: RM/TAD

**Sound Power Level at Louvres of Operational Building (assuming 80 dB(A) internal noise level)**

Segment ID	Segment Name	dB(A)	Octave bands with mid frequency in Hz								Distance to receptor (m)
			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	N/A
D=2	Side 2	71	82	78	76	69	61	55	53	49	N/A
D=3	Side 3	80	90	86	84	77	69	63	61	57	713
D=4	Side 4	77	88	84	82	75	67	61	59	55	683
D=5	Side 5	77	87	83	81	74	66	60	58	54	684
D=6	Side 6	71	82	78	76	69	61	55	53	49	715
D=7	Side 7	79	90	86	84	77	69	63	61	57	754
D=8	Side 8	83	94	90	88	81	73	67	65	61	N/A
Sum		85	95	91	89	82	74	68	66	62	

**Specific Noise Level at Receptor (Calculated using ISO 9613:1996 [\*1])**

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=3	Side 3	12	29	17	17	10	1				
D=4	Side 4	10	26	15	15	8					
D=5	Side 5	10	26	15	14	8					
D=6	Side 6	4	20	9	9	2					
D=7	Side 7	11	28	16	16	9					
Total		17	34	22	22	15	6				

**Other Contributions**

Roof	14
Walls	17
IVA Chillers	14

**Non-Test Operation**

	Daytime	Nighttime
Specific Noise Level (dBA)	22	22
Background Noise Level (dBA)	37	35
Specific minus Background (dB)	-15	-13

[\*1] - International Organization for Standardization (ISO) (1996). ISO 9613: Acoustics – Attenuation of sound during propagation outdoors. ISO Switzerland.