

**APPENDIX 9.3**

Derivation  $L_{day}$  and  $L_{night}$   
internal noise levels within  
proposed NSRs

NSR name	NSR ID	18 hour L10 (façade level)	Conversion to ambient (L <sub>Aeq</sub> )		Correction for model verification		Internal level (closed window transmission)		Comparison with target level	
		dB <sub>L10,18hr</sub>	dB <sub>Lday</sub>	dB <sub>Lnight</sub>	plus 2.7 dB		dB L <sub>day</sub>	dB <sub>Lnight</sub>	dB	dB
NW building	NSR1	62.4	60.7	52.4	63.4	55.1	35.4	27.1	0.4	-2.9
NE Building	NSR2	64.1	62.3	53.9	65.0	56.6	37.0	28.6	2.0	-1.4
SW building	NSR3	54.7	53.4	45.5	56.1	48.2	28.1	20.2	-6.9	-9.8
E building	NSR4	64.5	62.7	54.3	65.4	57.0	37.4	29.0	2.4	-1.0
SE building	NSR5	50.4	49.3	41.6	52.0	44.3	24.0	16.3	-11.0	-13.7
S building	NSR6	53.5	52.3	44.4	55.0	47.1	27.0	19.1	-8.0	-10.9
SW building	NSR7	64.1	62.3	53.9	65.0	56.6	37.0	28.6	2.0	-1.4

Conversion from L10 to Lday using Method 3 of TRL study  
 $= 0.95 * L_{10,18hr} + 1.44$

Conversion from L10 to Lnight using Method 3 of TRL study  
 $= 0.9 * L_{10,18hr} - 3.77$