



						<sup>3</sup> )	
10:AM	26.2	27.3	54.4	14.5	2.6	112	132.2
11:00	25.1	26.9	53	15.3	3.2		
12:00	19.7	30.1	49.8	14.6	3.4		
13:00	11.4	23	34.5	13.8	2.3		
14:00	18.3	32.5	50.8	14.6	3.3		
15:00	20.7	35.7	56.4	14.4	4.2		
16:00	16.1	32.2	48.3	14.6	3.1		
17:00	11.9	27.4	40.4	14.1	3.2		
<b>Limits</b>	150	200	150	350	30 (mg/m <sup>3</sup> )	150	230

Table **Error! No text of specified style in document.-2**: Eight (8) hours average ambient air pollutants' concentrations ( $\mu\text{g}/\text{m}^3$ )

## Noise

### Methodology

Ambient noise levels were measured using two B & K 2238 Mediator, Integrating Sound Level Meters, Type I (precision grade), compliant with IEC 1672 Class 1 standard and a B & K 4198 Outdoor Weatherproof Microphone Kit;

### Results

The tables below present the results of ambient noise measurements and their corresponding national and World Bank permissible limits.

Table **Error! No text of specified style in document.-3**: Ambient noise level measurements

Time	Sound Level Equivalent & Percentile Recordings in dBA for 8 Hours						Permissible Limits LAeq (dBA)	
	LAeq	LA10	LA50	LA90	LA95	LCpeak	Natio nal	Internati onal

Time	Sound Level Equivalent & Percentile Recordings in dBA for 8 Hours						Permissible Limits LAeq (dBA)	
	LAeq	LA10	LA50	LA90	LA95	LCpeak	Natio nal	Internati onal
10:00	<b>55.79</b>	41.58	31.58	25.04	23.63	108.85	<b>60</b>	<b>70</b>
11:00	<b>57.2</b>	45.41	51.53	50.03	52.47	100.74		
12:00	<b>67.12</b>	44.43	37.99	33.89	32.81	118.63		
13:00	<b>66.83</b>	45.48	38.11	32.58	31.71	88.82		
14:00	<b>71.9</b>	52.54	41.9	36.13	34.77	93.7		
15:00	<b>69.98</b>	56.19	47.64	38.16	36.34	95.32		
16:00	<b>68.12</b>	56.87	47.47	39.7	37.8	104.96		
17:00	<b>70.5</b>	58.67	49.75	38.61	36.17	99.24		

**Table Error! No text of specified style in document.-4: National and World Bank limits for ambient noise levels**

Noise	Egyptian Law 4 Requirements			WB Requirements		
	TYPE OF AREA	Permissible noise intensity decibel		Receptor	One hour LAeq (dBA)	
		DAY 7 a.m. to 10 p.m.	NIGHT 10 p.m. to 7 a.m.		Day 07:00– 22:00	Night 22:00 - 07:00
	Sensitive Areas (Schools- hospitals- rural areas)	50	40	Residential; Institutional; educational	55	45
	Residential with limited traffic	55	45	Industrial; commercial	70	70
	Urban residential areas with commercial activities	60	50			
	Residential adjacent to roads less than 12m wide	65	55			
	Residential adjacent to roads 12m wide or more, or light industrial areas.	70	60			
	Industrial areas (heavy industries)	70	70			

