

Cork Airport 2018

Dir \ Spd	<= 1.54	<= 3.09	<= 5.14	<= 8.23	<= 10.80	> 10.80	Total
0.0	20	37	126	131	8	0	322
22.5	16	32	58	109	24	0	239
45.0	19	27	78	105	11	0	240
67.5	33	34	44	42	16	0	169
90.0	35	68	152	125	46	8	434
112.5	43	60	144	54	5	3	309
135.0	37	44	94	126	61	50	412
157.5	43	82	168	114	72	47	526
180.0	82	165	376	200	115	37	975
202.5	75	147	397	207	97	14	937
225.0	50	110	507	265	45	7	984
247.5	29	102	350	196	46	15	738
270.0	55	113	220	229	61	30	708
292.5	43	131	158	113	29	7	481
315.0	24	108	343	148	23	0	646
337.5	22	83	281	195	34	0	615
Total	626	1,343	3,496	2,359	693	218	8,735
Calms							25
Missing							0
Total							8,760

APPENDIX 8.3

Air Quality Effect From Traffic Sources

Cumulative air modelling of road traffic emissions associated with the project have also been undertaken and added to the existing worst-case background pollutant levels. Cumulative effects due to the Port of Cork expansion project and other relevant projects as outlined in **Section 8.7** have been included in both the “do-nothing” and “do-something” scenario. The effect of the operational traffic accessing the Ringaskiddy Resource Recovery facility has been assessed using the UK DMRB Screening Model⁽³⁷⁾ which is a recommended screening model to assess air quality effects from road traffic⁽¹³⁾. The worst-case operational effect in the region of the facility has been assessed and is outlined in Table A8.84. Cumulative effects due to the Port of Cork expansion project have also been included in the “do-something” scenario. Development traffic data was taken from Table 7.9 of the Traffic Chapter of the EIAR (**Chapter 7**).

Peak contributions to ambient air quality concentration tend not to overlap between traffic sources and industrial releases both temporally and spatially as these peak contributions from each source often occur under different weather conditions. However, for the purposes of this assessment, the maximum ambient levels due to operational traffic sources and process emissions have been combined to derive the worst-case cumulative effect from the facility.

Table A8.84 Summary Of Predicted Traffic Derived Pollutant Levels At Nearest Receptor To The Proposed Ringaskiddy Resource Recovery Facility.

Scenarios	Traffic Speed (km/hr)	Carbon Monoxide (mg/m ³)		Benzene (µg/m ³)		Nitrogen Dioxide (µg/m ³)			Particulates (PM ₁₀) (µg/m ³)	
		Annual Mean	Maximum 8-hour	Annual mean benzene	Rolling annual mean benzene	Annual average NO _x	Annual average NO ₂	Maximum 1-Hour NO ₂	Annual average	No of Days > 50 µg/m ³
2023 Existing Traffic	30	0.01	0.1	0.01	0.01	1.2	0.70	2.5	0.15	0
2023 Do Something Traffic (Including Port Of Cork)	30	0.01	0.1	0.01	0.02	2.0	1.1	3.9	0.20	0
Standards			10 ⁽¹⁾		5 ⁽¹⁾	-	40 ⁽²⁾	200 ^(2,3)	40 ²	35 ^(2,4)

⁽¹⁾ EU Council Directive 2000/69/EC (S.I. 180 of 2011)

⁽²⁾ EU Council Directive 2008/50/EC (S.I. 180 of 2011)

⁽³⁾ 1-hr limit of 200 µg/m³ not to be exceeded > 18 times/year (99.8th %ile)

⁽⁴⁾ 24-Hr limit of 50 µg/m³ not to be exceeded > 35 times/year (90.4th %ile)