

Table 2.3 HKPSG Recommended Buffer Distances

Source	Sensitive Land Use	Recommended Buffer Distance
Multi-storey industrial buildings without chimneys	Residential areas and schools	100m
Multi-storey industrial buildings without chimneys	Low-rise air-conditioned commercial and G/IC uses	30m
Industrial areas / large pollution sources	Hospitals	500m
Industrial areas	Sensitive uses	If any within 500m, consult EPD
Major industrial areas	High-rise buildings	>200m
Industrial chimneys	Active recreation open spaces	10-200m, depending on difference in height
Industrial chimneys	Passive recreation open spaces	5-200m, depending on difference in height
Odour sources	Sensitive uses	200m
Construction and earth moving activities	Active recreation open spaces	50m
Construction and earth moving activities	Passive recreation open spaces	No buffer distance
Dusty uses	Other uses	100m
Trunk road and primary distributor	Active recreation open spaces	20m
Trunk road and primary distributor	Passive recreation open spaces	3-20m
Trunk road and primary distributor	Amenity areas	No buffer distance
District distributor	Active recreation open spaces	10m
District distributor	Passive recreation open spaces	No buffer distance
Local distributor	Active recreation open spaces	5m
Local distributor	Passive recreation open spaces	No buffer distance

**2.1.5** For construction dust, Annex 4 of *EIAO-TM* specifies a TSP limit in air over a 1-hour period of  $500 \mu\text{g}/\text{m}^3$ . The maximum acceptable TSP concentration averaged over a 24-hour period is  $260 \mu\text{g}/\text{m}^3$ , as defined in the AQOs.

**2.1.6** The *Air Pollution Control (Construction Dust) Regulation* specifies processes that require special control. Contractors and site agents are required to inform EPD and adopt dust reduction measures while carrying out "Notifiable Works" as defined under the regulation. These works include:

- Site formation;
- Reclamation;
- Demolition of a building;
- Work carried out in any part of a tunnel that is within 100m of any exit to the open air;
- Construction of the foundation of a building;
- Construction of the superstructure of a building; or
- Road construction work.

**2.1.7** Amendment to the *APCO* (1993) has included objectionable odour as an air pollutant, but with no quantitative criteria. The *EIAO-TM* stipulates an odour nuisance limit of 5 odour units (OU) based on an averaging time of 5 seconds. An OU is defined as the dilution factor required for samples of odorous gases to be diluted with clean odour-free air to the detection threshold.

## 2.2 Description of the Environment

**2.2.1** Existing air quality in the vicinity of the study area is influenced by emissions from the following sources:

- Kai Tak International Airport (before its closure in mid 1998);
- Road network within and around the study area;
- Industrial areas around the study area namely Kwun Tong, Kowloon Bay, San Po Kong, To Kwa Wan, and Hung Hom;
- Construction activities within and around the study area; and
- Potential odour emissions from Kai Tak Approach Channel and Kwun Tong Typhoon Shelter.

**2.2.2** There is currently no EPD-operated air quality monitoring station located within the study area. Historical air quality monitoring data from other nearby stations, namely the roadside Mong Kok station and the rooftop Kwun Tong station operated by EPD are taken to examine the historical trend of the air quality condition in the vicinity of the study area.

**2.2.3** The last three published years of air quality monitoring data, namely 1997, 1998 and 1999 at Mong Kok station and Kwun Tong station are tabulated in **Tables 2.4** and **2.5** respectively.

**Table 2.4 EPD Air Quality Monitoring Data at Mong Kok Station, 1997 to 1999**

Pollutant	Year	Highest 4 Hourly Average ( $\mu\text{g}/\text{m}^3$ )	Highest 2 Daily Average( $\mu\text{g}/\text{m}^3$ )	Annual Average ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>	1997	248 / 248 / 209 / 203	103 / 96	18
	1998	207 / 196 / 176 / 166	70 / 64	18
	1999	235 / 213 / 212 / 201	91 / 85	25
NO <sub>2</sub>	1997	<b>342 / 322 / 305 / 302</b>	<b>186 / 182</b>	<b>85</b>
	1998	259 / 251 / 245 / 237	<b>173</b> / 150	<b>83</b>
	1999	<b>319 / 307 / 304</b> / 295	<b>180 / 176</b>	<b>86</b>
TSP	1997	N/M	<b>275</b> / 239	<b>134</b>
	1998	N/M	172 / 153	<b>103</b>
	1999	N/M	221 / 179	<b>110</b>
RSP	1997	N/M	159 / 153	<b>75</b>
	1998	306 / 287 / 279 / 269	166 / 149	<b>63</b>
	1999	328 / 327 / 319 / 310	<b>216</b> / 168	<b>67</b>

Note: N/M - Not Measured.  
Monitoring results that exceeded AQO are shown in **bold** characters.

**Table 2.5 EPD Air Quality Monitoring Data at Kwun Tong Station, 1997 to 1999**

Pollutant	Year	Highest 4 Hourly Average ( $\mu\text{g}/\text{m}^3$ )	Highest 2 Daily Average( $\mu\text{g}/\text{m}^3$ )	Annual Average ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>	1997	286 / 229 / 219 / 215	103 / 95	16
	1998	225 / 219 / 202 / 196	57 / 53	12
	1999	225 / 197 / 193 / 177	103 / 81	18
NO <sub>2</sub>	1997	<b>323 / 310</b> / 292 / 278	<b>179 / 178</b>	74
	1998	228 / 219 / 217 / 210	<b>155</b> / 134	68
	1999	<b>306</b> / 288 / 279 / 274	<b>192 / 159</b>	78
TSP	1997	N/M	253 / 144	<b>93</b>
	1998	N/M	207 / 178	80
	1999	N/M	182 / 158	<b>87</b>
RSP	1997	N/M	<b>185</b> / 93	<b>59</b>
	1998	297 / 253 / 247 / 240	146 / 142	53
	1999	264 / 260 / 249 / 247	<b>199</b> / 147	52

Note: N/M - Not Measured.  
Monitoring results exceeded AQO are shown as **bold** characters.

**2.2.4** The monitoring results in **Tables 2.4** and **2.5** for the roadside Mong Kok station and the rooftop Kwun Tong station show that nitrogen dioxide and particulates have been the major air pollutants of concern both at the roadside and the rooftop levels. The reasons may be due to the high traffic emissions from road network and the dust emissions from construction activities in the area. The monitoring results indicated that the pollutant levels were generally higher at the roadside level as compared with the rooftop level. Besides, it is noted that the annual average concentrations of both TSP and RSP exceeded the AQOs from 1997 to 1999 at roadside station. The recorded level of sulphur dioxide remained low (less than 50% of the respective AQOs) at both roadside level and rooftop level from 1997 to 1999.