

Annex A5-1 - ISCST3 Model Results for Gaseous Emissions during Operation/Restoration Phase

Note : Assessment was only carried within 500m from the Extension site boundary

Nitrogen Dioxide (NO₂)

General Background NO₂ concentration 66 ug/m³

Maximum Hourly

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	75	75	75	75	75
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	68	72	95	134	134
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	70	70	71	77	77
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	68	68	68	71	71
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	68	68	69	71	71
A2	TVB City	30	68	68	68	71	71
A3	HAESL	30	68	68	68	71	71
A4	HAECO Component Overhaul Building	30	68	68	70	75	75
A7	Yan Hing Machinery Industrial Building	30	72	72	73	74	74
A8	Apple Daily	30	83	83	84	84	84
Hourly NO ₂ Criterion			300	300	300	300	300

Daily

General Background NO₂ concentration 66 ug/m³

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	66	66	67	67	67.0
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	66	67	74	90	90.3
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	67	67	67	68	67.8
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	67	67	67	67	66.6
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	67	67	67	67	67.3
A2	TVB City	30	66	66	66	67	66.5
A3	HAESL	30	66	66	67	67	66.8
A4	HAECO Component Overhaul Building	30	66	66	66	67	67.0
A7	Yan Hing Machinery Industrial Building	30	67	67	67	68	67.5
A8	Apple Daily	30	67	67	67	67	67.3
Daily NO ₂ Criterion			150	150	150	150	150

Annual Average

General Background NO₂ concentration 66 ug/m³

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	66.0	66.0	66.1	66.1	66.10
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	66.0	66.1	66.3	67.9	67.93
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	66.0	66.0	66.1	66.1	66.12
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	66.1	66.1	66.1	66.1	66.09
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	66.1	66.1	66.1	66.1	66.11
A2	TVB City	30	66.1	66.1	66.1	66.1	66.08
A3	HAESL	30	66.1	66.1	66.2	66.2	66.24
A4	HAECO Component Overhaul Building	30	66.1	66.1	66.1	66.2	66.15
A7	Yan Hing Machinery Industrial Building	30	66.1	66.1	66.1	66.1	66.15
A8	Apple Daily	30	66.1	66.1	66.1	66.2	66.16
Annual NO ₂ Criterion			80	80	80	80	80

Carbon Monoxide (CO)

General Background CO concentration 1294 ug/m³

Maximum Hourly

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	1327	1328	1332	1357	1357
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	1320	1362	1649	2273	2273
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	1336	1337	1364	1448	1448
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	1325	1325	1327	1359	1359
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	1326	1326	1331	1358	1358
A2	TVB City	30	1325	1325	1326	1361	1361
A3	HAESL	30	1321	1321	1323	1359	1359
A4	HAECO Component Overhaul Building	30	1320	1320	1322	1358	1358
A7	Yan Hing Machinery Industrial Building	30	1321	1321	1324	1360	1360
A8	Apple Daily	30	1320	1320	1322	1358	1358
Hourly CO Criterion			30000	30000	30000	30000	30000

8-hour Averaging

General Background CO concentration

1294 ug/m3

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	1311	1312	1314	1326	1326
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	1305	1327	1537	1764	1764
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	1314	1317	1323	1361	1361
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	1312	1312	1312	1312	1312
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	1310	1311	1316	1325	1325
A2	TVB City	30	1312	1312	1312	1312	1312
A3	HAESL	30	1306	1306	1306	1310	1310
A4	HAECO Component Overhaul Building	30	1307	1307	1307	1308	1308
A7	Yan Hing Machinery Industrial Building	30	1306	1306	1309	1323	1323
A8	Apple Daily	30	1305	1305	1309	1322	1322
8-hour CO Criterion			10000	10000	10000	10000	10000

Sulphur Dioxide (SO₂)**Maximum Hourly**Background SO₂ concentration

18 ug/m3

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	21	21	21	24	24.1
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	20	22	38	118	118.1
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	22	22	24	31	31.1
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	21	21	21	23	22.8
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	21	21	21	23	22.7
A2	TVB City	30	21	21	21	23	23.0
A3	HAESL	30	20	20	21	23	23.0
A4	HAECO Component Overhaul Building	30	20	20	20	23	23.0
A7	Yan Hing Machinery Industrial Building	30	20	20	21	23	23.1
A8	Apple Daily	30	20	20	20	23	23.1
Hourly SO ₂ Criterion			800	800	800	800	800

DailyBackground SO₂ concentration

18 ug/m3

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	18.6	18.6	18.8	19.0	19.0
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	18.2	18.7	23.3	51.2	51.2
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	18.6	18.7	18.9	20.0	20.0
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	18.6	18.6	18.7	18.7	18.7
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	18.8	18.9	19.1	19.5	19.5
A2	TVB City	30	18.6	18.6	18.6	18.7	18.7
A3	HAESL	30	18.4	18.4	18.5	18.5	18.5
A4	HAECO Component Overhaul Building	30	18.4	18.4	18.5	18.7	18.7
A7	Yan Hing Machinery Industrial Building	30	18.7	18.8	19.0	19.6	19.6
A8	Apple Daily	30	18.6	18.6	18.8	19.2	19.2
Daily SO ₂ Criterion			350	350	350	350	350

Annual AverageBackground SO₂ concentration

18 ug/m3

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	18.04	18.05	18.06	18.11	18.11
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	18.01	18.04	18.23	20.16	20.16
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	18.03	18.04	18.06	18.14	18.14
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	18.07	18.07	18.07	18.09	18.09
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	18.06	18.06	18.08	18.11	18.11
A2	TVB City	30	18.06	18.06	18.07	18.09	18.09
A3	HAESL	30	18.05	18.05	18.06	18.08	18.08
A4	HAECO Component Overhaul Building	30	18.05	18.05	18.06	18.08	18.08
A7	Yan Hing Machinery Industrial Building	30	18.06	18.07	18.09	18.13	18.13
A8	Apple Daily	30	18.06	18.06	18.08	18.12	18.12
Annual SO ₂ Criterion			80	80	80	80	80

Benzene

Background Benzene concentration

2.1 ug/m³**Maximum Hourly**

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	2.10	2.10	2.10	2.11	2.11
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	2.10	2.11	2.14	2.19	2.19
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	2.10	2.10	2.11	2.11	2.11
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	2.10	2.10	2.10	2.11	2.11
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	2.10	2.10	2.10	2.11	2.11
A2	TVB City	30	2.10	2.10	2.10	2.11	2.11
A3	HAESL	30	2.10	2.10	2.10	2.11	2.11
A4	HAECO Component Overhaul Building	30	2.10	2.10	2.10	2.11	2.11
A7	Yan Hing Machinery Industrial Building	30	2.10	2.10	2.10	2.11	2.11
A8	Apple Daily	30	2.10	2.10	2.10	2.11	2.11
Acute Reference Concentration			1,300	1,300	1,300	1,300	1,300

Annual Average

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	2.100	2.100	2.100	2.100	2.100
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	2.100	2.100	2.100	2.102	2.102
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	2.100	2.100	2.100	2.100	2.100
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	2.100	2.100	2.100	2.100	2.100
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	2.100	2.100	2.100	2.100	2.100
A2	TVB City	30	2.100	2.100	2.100	2.100	2.100
A3	HAESL	30	2.100	2.100	2.100	2.100	2.100
A4	HAECO Component Overhaul Building	30	2.100	2.100	2.100	2.100	2.100
A7	Yan Hing Machinery Industrial Building	30	2.100	2.100	2.100	2.100	2.100
A8	Apple Daily	30	2.100	2.100	2.100	2.100	2.100
Chronic Reference Concentration			30	30	30	30	30

Vinyl Chloride

Background Benzene concentration

5.1 ug/m³**Maximum Hourly**

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	5.10	5.10	5.10	5.10	5.10
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	5.10	5.10	5.12	5.16	5.16
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	5.10	5.10	5.10	5.10	5.10
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	5.10	5.10	5.10	5.10	5.10
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	5.10	5.10	5.10	5.10	5.10
A2	TVB City	30	5.10	5.10	5.10	5.10	5.10
A3	HAESL	30	5.10	5.10	5.10	5.10	5.10
A4	HAECO Component Overhaul Building	30	5.10	5.10	5.10	5.10	5.10
A7	Yan Hing Machinery Industrial Building	30	5.10	5.10	5.10	5.10	5.10
A8	Apple Daily	30	5.10	5.10	5.10	5.10	5.10
Acute Reference Concentration			1.8.E+05	1.8.E+05	1.8.E+05	1.8.E+05	1.8.E+05

Annual Average

ASR	Name	Approx. Maximum Height of Building (m)	GD	10m	20m	30m	Highest
A1-1	Proposed C&DM Handling Facility	30	5.100	5.100	5.100	5.100	5.100
A1-2 (1)	Planned Industrial Uses in TKO 137 (South of Extension) - 1	30	5.100	5.100	5.100	5.101	5.101
A1-2 (2)	Planned Industrial Uses in TKO 137 (South of extension) - 2 (outside 200m HKSG buffer distance)	30	5.100	5.100	5.100	5.100	5.100
A1-3 (1)	Planned Industrial Uses in TKO 137 (South of TVB City) 1	30	5.100	5.100	5.100	5.100	5.100
A1-3 (2)	Planned Industrial Uses in TKO 137 (South of TVB City) - 2 (outside 200m HKPSG buffer distance)	30	5.100	5.100	5.100	5.100	5.100
A2	TVB City	30	5.100	5.100	5.100	5.100	5.100
A3	HAESL	30	5.100	5.100	5.100	5.100	5.100
A4	HAECO Component Overhaul Building	30	5.100	5.100	5.100	5.100	5.100
A7	Yan Hing Machinery Industrial Building	30	5.100	5.100	5.100	5.100	5.100
A8	Apple Daily	30	5.100	5.100	5.100	5.100	5.100
Chronic Reference Concentration			100	100	100	100	100