

Appendix 4O

Emission of Kwun Tong Typhoon Shelter

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CE 38/2008(HY)

Kai Tak Development - Trunk Road T2 and Infrastructure at South Apron
Investigation, Design and Construction
Emission of Kwun Tong Typhoon Shelter

Barge Ship in Kwun Tong Typhoon Shelter

Auxiliary Engine during idling:

		Remarks
Propulsion engine Power, kW =	82	(1)
Load Factor, % =	43%	(1)
Activity Time, Hr =	1	
No. of Barges per hour operate =	20	

	Emission Factor in g/kWh	Emission Rate in kg	Emission Rate in kg/hr	Emission Rate in g/s per barge	Remarks
NO _x	10	0.3526	7.052	1.9589	
RSP	0.4	0.014104	0.28208	0.1982	(2)

Total Area of Kwun Tong Typhoon Shelter, m² = 336600

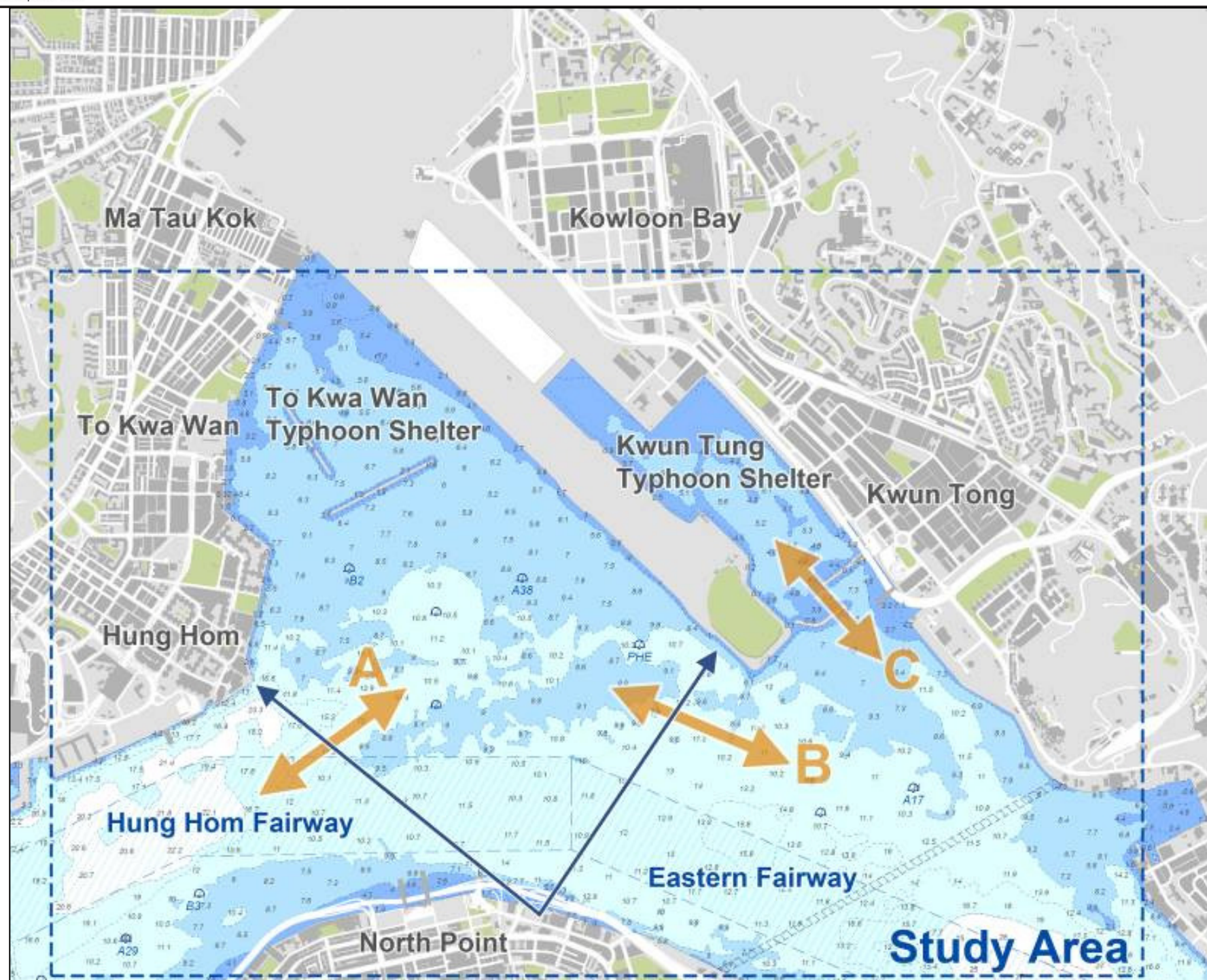
	Total Emission Rate g/s	Total Emission Rate, g/m ² /s
		Kwun Tong
NO _x	1.9589	5.81963E-06
NO ₂	0.3918	1.16393E-06
RSP	0.1982	5.88947E-07

NOTE:

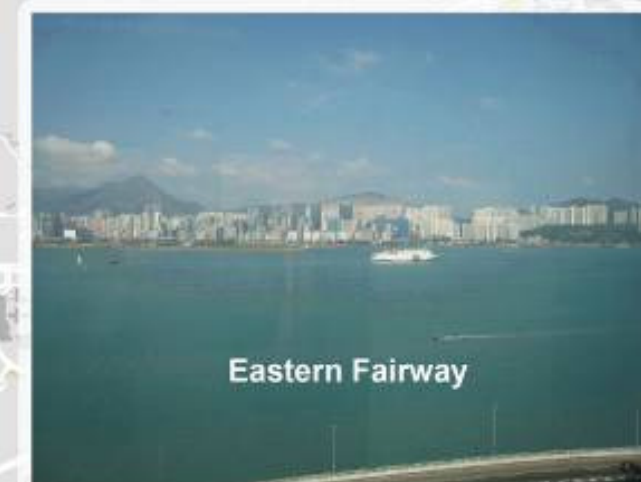
(1) As Auxiliary Engine power rating of a Speed launch Vessel is not available from the reference document, "Study on Marine Vessels Emission Inventory", the power rating of a Barge Ship is used for a conservative approach

(2) Emission Factor for RSP is multiplied by 2.53 assuming the use of fuel with average of 3.8% sulphur content for conservative approach

Source ID	X-Coordinate	Y-Coordinate	Release Height (m)	Length-X	Width-Y	Angle	NOx (g/m ² /s)	RSP (g/m ² /s)
KTTS	839777.000	819292.000	5	1020	330	45	5.81963E-06	5.88947E-07



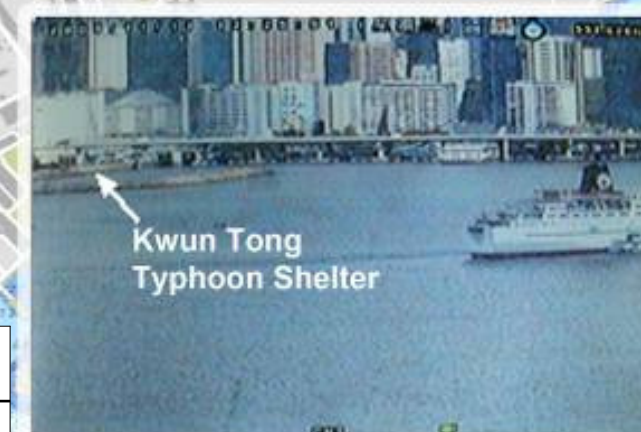
Survey Viewing Kwun Tong Typhoon Shelter and Eastern Fairway



Eastern Fairway



Hung Hum Fairway



Kwun Tong Typhoon Shelter

Cargo				Passenger				Others					Total
O-G Cargo	River Trade	Tug & Tow	Derrick Barge	O-G Passenger	Fast Ferry	Conventiona l Ferry	Fast Launch	Tugboat	Fishing Vessel	Local DG	Pleasure Vessels	Unclassified	Total
1	17	0	7	0	0	97	13	1	4	39	0	19	198
0.4%	9%	0.2%	3%	-	-	49%	7%	1%	2%	19%	-	9%	100%

PRINTED BY:

<div>Rev.</div> <div>Description</div>			<div>Date</div>	<div>Drawing title</div> <div>DIAGRAMMATIC LOCATIONS OF KEY SURVEY SITES</div>	<div>Original Size</div> <div>A3</div>	<div>Scale</div> <div>NTS</div>	<div>Date</div> <div>MAR 2013</div>
					<div>© Copyright reserved</div>	<div>File name</div>	<div>Drawing No.</div> <div>APPENDIX 40-1</div>