Alternative Ground Decontamination Works at the Proposed Kennedy Town Comprehensive Development Area Site Environmental Impact Assessment Report



Appendix 3.9 Details of

Details of Dust Emission Sources for Annual Dust Assessment (Tier 2)

Appendix 3.9 - Details of Dust Emission Sources for Annual RSP Assessment (Tier 2) for all zone under excavation

KTCDA

Works Area	Sources	Parameter		Remarks
KTCDA	Heavy construction	Percentage active area, p	19.0 %	Assume 19% works area for heavy construction
	Source ID: A-1 to A-9,		91.7 %	Water suppression 10 times a day
		No. of working days per month, d	26 days	
		No. of working hours per day, h		From 8:00 to 18:00
		Emission Factor for TSP		AP42, Section 13.2.3.3
		% content of RSP	30 % of TSP	
		Emission Factor for RSP	0.81 Mg/hectare/month of activity	
		Emission Rate for RSP	1.64225E-05 g/m²/s (unmitigated)	=2.69*0.3*1000000/(10000*d*h*60*60)*p/100
			1.36306E-06 g/m²/s (mitigated)	
	Wind Erosion for	Percentage active area, p	19.0 %	
		Mitigation efficiency		Water suppression 10 times a day
		Emission Factor for TSP		AP42, Table 11.9-4
	B-1 to B-9, C-1 to C-5		30 % of TSP	A1 42, 1able 11.5 4
	,	Emission Factor for RSP	0.26 Mg/hectare/year	
		Emission Rate for RSP	1.54019E-07 g/m²/s (unmitigated)	=0.85*0.3*1000000/(10000*365*24*60*60)*p/100
		265.61. 1 (4.6 16. 1 1.6)	1.27836E-08 g/m²/s (mitigated)	-5.55 5.5 1555555,(15555 555 <u>-</u> 1 55 55) p/155
	Wind Erosion for Non-	Percentage active area, p	100 %	
	Working Hours	Emission Factor for TSP	0.85 Mg/hectare/year	AP42, Table 11.9-4
	Source ID: A-1 to A-9,	% content of RSP	30 % of TSP	
	B-1 to B-9, C-1 to C-5	Emission Factor for RSP	0.26 Mg/hectare/year	
		Emission Rate	8.086E-07 g/m ² /s (unmitigated)	=0.85*0.3*1000000/(10000*365*24*60*60)*p/100

Appendix 3.9 - Details of Dust Emission Sources for Annual RSP Assessment (Tier 1) for Concurrent Projects

KTCDA

Works Area	Sources	Parameter		Remarks
Concurrent	Heavy construction	Percentage active area, p	100 %	Assume 100% works area for heavy construction
Projects	Source ID: CP-1 to	Mitigation efficiency	91.7 %	Water suppression 10 times a day
	CP-11 and CP-14 to	No. of working days per month, d	26 days	
	CP-32	No. of working hours per day, h	10 hour	From 8:00 to 18:00
		Emission Factor for TSP	2.69 Mg/hectare/month of activity	AP42, Section 13.2.3.3
		% content of RSP	30 % of TSP	
		Emission Factor for RSP	0.81 Mg/hectare/month of activity	
		Emission Rate	8.62179E-05 g/m ² /s (unmitigated)	=2.69*0.3*1000000/(10000*d*h*60*60)*p/100
			7.15609E-06 g/m ² /s (mitigated)	
		Percentage active area, p	100 %	
		Mitigation efficiency	91.7 %	Water suppression 10 times a day
		Emission Factor for TSP	0.85 Mg/hectare/year	AP42, Table 11.9-4
	CP-11 and CP-14 to		30 % of TSP	
	CP-32	Emission Factor for RSP	0.26 Mg/hectare/year	
		Emission Rate	8.086E-07 g/m ² /s (unmitigated)	=0.85*0.3*1000000/(10000*365*24*60*60)*p/100
			6.71138E-08 g/m ² /s (mitigated)	
		Percentage active area, p	100 %	
		Emission Factor for TSP	0.85 Mg/hectare/year	AP42, Table 11.9-4
		% content of RSP	30 % of TSP	
		Emission Factor for RSP	0.26 Mg/hectare/year	
	CP-32	Emission Rate	8.086E-07 g/m ² /s (unmitigated)	=0.85*0.3*1000000/(10000*365*24*60*60)*p/100