

STACK EMISSION MONITORING & ANALYSIS DATA BASE

(Oct'10-Mar'11)

Stack Physical Parameters

Existing Plant		
Stack connected to	Height from GL (m)	Internal dia at sampling point (m)
DEG	58	3.16
Hot oil Heater	69	1.9
Boiler/Incinerator	88	1.7
PX oxidation off gas (PX - Paraxylene)	21.85	2.2
Vent gas scrubber -I (Scrubbing of Process off) gas from	18.35	1.6
Vent gas scrubber -II (PTA Storage Scrubber)	15.15	2.1

Expansion Plant		
Stack connected to	Height from GL (m)	Internal dia at sampling point (m)
Hot oil Heater	30	1.4
DEG & Incinerator	70	2.2
Off Gas Combustion Unit	30	

- Note:** 1. Stack emissions are monitored wrt to PM, CO, SO₂, NO₂. However as per the Air & Water Consent to operate only PM & CO are to be monitored. Hydrocarbon monitoring done on quarterly basis in DEG & Hot oil heater stacks.
 2. As there is no P M, SO₂ & NO₂ from Process emission (PX off gas, Vent gas scrubber- I & II, off gas combustion unit) so these parameters are not measured from these stacks.
 3. Incinerator emission is through Boiler stack ie Boiler & Incinerator stack is common in the existing plant.
 4. Boiler not running during normal operation. It is operated only during start up & shut down of the Plant.
 5. Stack sampling from Hot Oil Heater, DEG, Incinerator in the Existing & Expansion Plant are conducted by third party, whereas for vent gas scrubber I,II, PX Off Gas stack, off gas combustion emission sampling is conducted in-house.

ANALYSIS RESULTS

Month - October'10

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm ³)	102.0	57.0	59.0	-	-	-	-	28.0	-
2	CO (%, v/v)	<0.02	<0.2	<0.2	0.38	0.10	0.34	-	<0.2	-
3	SO ₂ (mg/Nm ³)	1055.9	1183.8	1397.6	-	-	-	-	79.2	-
4	NO ₂ (mg/NM ³)	477.6	486.4	495.2	-	-	-	-	91.8	-

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<1.0	<1.0	<1.0	-	<1.0

ANALYSIS RESULTS

Month - November'10

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm ³)	138.0	146.0	81.0	-	-	-	67	106	-
2	CO (%, v/v)	<0.2	<0.2	<0.2	0.29	0.06	0.35	<0.2	<0.2	-
3	SO ₂ (mg/Nm ³)	1084.4	1086.6	1372.3	-	-	-	1025.3	965.1	-
4	NO ₂ (mg/Nm ³)	583.3	573.1	513.1	-	-	-	298.6	398.0	-

WBPCB SAMPLING:

S No.	Parameter	Hot oil heater	DEG	Incinerator
1	PM (mg/Nm ³)	122.87	44.08	31.81

ANALYSIS RESULTS

Month - December'10

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	123.0	129.0	76.0	-	-	-	54.0	41.0	-
2	CO (%, v/v)	<0.2	<0.2	<0.2	0.28	0.08	0.27	<0.2	<0.2	-
3	SO ₂ (mg/Nm3)	1125.7	1015.4	1238.9	-	-	-	999.3	1009.2	-
4	NO ₂ , (mg/Nm3)	485.7	522.6	496.7	-	-	-	325.6	410.9	-

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	NMHC (ppm)	<1.0	<1.0	<1.0	<1.0	<1.0

ANALYSIS RESULTS

Month - January'11

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	-	123.0	88.0	-	-	-	29.0	73.0	-
2	CO (%, v/v)	-	<0.2	<0.2	0.27	0.11	0.28	<0.2	<0.2	-
3	SO ₂ (mg/Nm3)	-	1061.7	1320.8	-	-	-	881.6	1187.5	-
4	NO ₂ , (mg/Nm3)	-	504.4	476.2	-	-	-	376.1	483.4	-

ANALYSIS RESULTS

Month - February'11

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	200.0	60.0	72.0	-	-	-	87.0	87.0	-
2	CO (%, v/v)	<0.2	<0.2	<0.2	0.27	0.09	0.32	<0.2	<0.2	-
3	SO ₂ (mg/Nm3)	1385.6	1106.4	1136.0	-	-	-	952.0	1321.4	-
4	NO ₂ , (mg/Nm3)	496.2	532.3	432.7	-	-	-	401.3	518.6	-

WBPCB SAMPLING:

S No.	Parameter	DEG (Old plant)	DEG & Incinerator (New plant)
1	PM (mg/Nm3)	99.82	67.65

ANALYSIS RESULTS

Month - March'11

S No.	Parameter	Existing Plant					Expansion Plant			
		Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator	Off Gas Combustion
1	PM (mg/Nm3)	125.0	69.0	63.0	-	-	-	76.0	134.0	-
2	CO (%, v/v)	<0.2	<0.2	<0.2	-	-	-	<0.2	<0.2	-
3	SO ₂ (mg/Nm3)	821.1	1067.2	934.4	-	-	-	717.5	1075.6	-
4	NO ₂ , (mg/Nm3)	375.3	406.5	351.5	-	-	-	328.4	425.6	-