

**STACK EMISSION MONITORING & ANALYSIS DATA BASE**

(April'14-Sept'14)

**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:**

- Stack emissions are monitored wrt to PM ,CO, SO<sub>2</sub>, NO<sub>2</sub>. 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.
- As there is no P M, SO<sub>2</sub> & NO<sub>2</sub> from Process emission ( PX off gas, Vent gas scrubber- I & II, off gas combustion unit) so these parameters are not measured from these stacks.
- Incinerator emission is through Boiler stack ie Boiler & Incinerator stack is common in the existing plant.
- Boiler not running during normal operation. It is operated only during start up & shut down of the Plant.
- 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 - April'14

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 or	Off Gas Combustion
1	PM (mg/Nm <sup>3</sup> )	58.0	69.0	stop*	0.21	Not venting	Not venting	127	88.0	-
2	CO ( %, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm <sup>3</sup> )	446.7	458.8					402.2	493.3	-
4	NO <sub>2</sub> (mg/NM <sup>3</sup> )	244.0	236.8					256.8	211.6	-

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

### ANALYSIS RESULTS

Month -May'14

Existing Plant								Expansion Plant		
S No.	Parameter	Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator or	Off Gas Combustion
1	PM (mg/Nm3)	51.0	57.0	stop*	0.35	Not venting	Not venting	139	76	-
2	CO ( %, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm3)	468.8	479.8					371.6	536.6	-
4	NO <sub>2</sub> (mg/Nm3)	261.9	250.9					139	249.4	-

### WBPCB SAMPLING:

Existing Plant				Expansion Plant		
S No.	Parameter	Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	108.97	19.68	stop	282.84	59.41

### ANALYSIS RESULTS

Month -June'14

Existing Plant								Expansion Plant		
S No.	Parameter	Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator or	Off Gas Combustion
1	PM (mg/Nm3)	49.0	52.0	stop*	0.21	Not venting	Not venting	98.0	42.0	-
2	CO ( %, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm3)	421.4	431.2					394.4	470.5	-
4	NO <sub>2</sub> (mg/Nm3)	243.3	228.3					219.1	231.4	-

### ANALYSIS RESULTS

Month - July'14

Existing Plant								Expansion Plant		
S No.	Parameter	Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator or	Off Gas Combustion
1	PM (mg/Nm3)	147	76.0	stop*	0.22	Not venting	Not venting	139.0	71.0	-
2	CO ( %, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm3)	474.7	415.6					340.1	423.8	-
4	NO <sub>2</sub> (mg/Nm3)	262.1	221.2					202.2	216.5	-

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

### ANALYSIS RESULTS

Month -August'14

Existing Plant					Expansion Plant	
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S No.	Parameter	Hot oil heater	DEG	Incinerator	PX off gas Stack	Vent gas scrubber-I	Vent gas scrubber-II	Hot Oil Heater	DEG & Incinerator or	Off Gas Combustion
1	PM (mg/Nm3)	189.0	98.0	stop*	0.14	Not venting	Not venting	186	110.0	-
2	CO (%, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm3)	516.4	665.0					2722.7	449.2	-
4	NO <sub>2</sub> (mg/Nm3)	196.2	169.8					175.3	290.2	-

### WBPCB SAMPLING:

S No.	Parameter	Existing Plant			Expansion Plant	
		Hot oil heater	DEG	Incinerator	Hot Oil Heater	DEG & Incinerator
1	PM (mg/Nm3)	132.8	23.94		46.80	40.1

### ANALYSIS RESULTS

Month -September'14

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 or	Off Gas Combustion
1	PM (mg/Nm3)	96.0	87.0	stop*	0.21	Not venting	Not venting	232.0	65.0	-
2	CO (%, v/v)	<0.2	<0.2					<0.2	<0.2	-
3	SO <sub>2</sub> (mg/Nm3)	526.8	584.6					2533.7	502.8	-
4	NO <sub>2</sub> (mg/Nm3)	259.2	210.8					179.8	236.9	-

\* Co processing activity is on process with M/S Ambuja Cement Ltd.(ACL) as per CPCB approval