COMPLIANCE OF CONDITIONS GIVEN IN ENVIRONMENT CLEARANCE (No. : SEIAA/GUJ/EC/5(f)/228/2016 dated 31/03/2016)
FOR SETTING UP NEW 40000 MTPA MELAMINE PLANT WITHIN THE EXISTING COMPLEX

Sr. No.	Conditions	Compliance Status (Period Oct 19 to March.20)
A.1	**SPECIFIC CONDITION**	
1	Entire quantity of Intermediate product – Molten Urea shall be used for captive consumption for Melamine plants only. Present Status of the Project :	Complied. Intermediate product – Molten Urea is used for captive consumption for Melamine Plants. Project commissioned on 11/03/2019.
A.2	**WATER**	
2	The additional water consumption for the proposed expansion shall not exceed 3807.7 KL/day. Unit shall reuse 1533.5 KL/day of waste water. Hence, requirement of fresh water shall not exceed 2274.3 KL/day.	Complied. The additional average water consumption for the period of Oct.19-March; 20 is 737 KL/day. Process condensate is either recycled back in to process or reused in utility plant. RO water permeate is also reused in the Cooling Tower when in operation. The requirement of fresh water remained within 2274.3 KL/day.
3	Fresh water shall be met through existing French wells in Mahi River. Permission from the Concern authority for additional water requirement shall be obtained.	Complied. GSFC is withdrawing water from its own French wells located in Mahi river for operation of the plants. GSFC is withdrawing water from its own French wells located in Mahi river for operation of the plants. GSFC got permission for 31.822 MLD drawl of water from Vadodara Irrigation Division (VID) for the year 2020-21 vide letter no. VID/PB-1/IND/REQ.2020- 21/GSFC/950 dated 19/03/20. They are allowing +/- 25% water withdrawal of permissible limit without any penalty. Avg. water drawl for the period Oct'19 to March'20 is 32.08 MLD for GSFC baroda complex. Water balance diagram for the financial year 2019-20 is given as Annexure - II.

Month wise records of water withdrawal from Mahi river for GSFC complex:

Month	Avg. (m3/D)	Minimum (m3/D)	Maximum (m3/D)	Maximum lir permission fron (m3/D)
Oct-19	33913	28938	37252	39777.5
Nov-19	34015	29414	36129	39777.5
Dec-19	32288	29406	35272	39777.5
Jan-20	31356	29480	34184	39777.5
Feb-20	31261	28506	34872	39777.5
March- 20	29652	14506	35153	39777.5

કાર્યપાલક ઇજનેર,
વડોદરા સિંચાઇ વિભાગ,
૭ મો માળ, રૂમ નં. ૭૧૭,
આઇ-બ્લોક, કુબેર ભવન,
વડોદરા. ૩૯૦૦૦૧
ફોન નં. ૦૨૬૫-૨૪૧૫૩૭૬

Executive Engineer,
Vadodara Irrigation Division
7th floor, Room No.717,
"I" Block, Kuber Bhavan,
Vadodara. 390001.
E-mail address:
vidvadodara@gmail.com

Fax No.0265-2418639. Phone No.-0265-2415376

No. VID/PB-I/IND/REQ.2020-21/GSFC/ 950 of 2020.
Date 9/03/2020

To
Shri J.V.Jani,
D. G. M.(SG-COO, I & EC)
Gujarat State Fertilizer & Chem. Ltd.,
P.O. Fertilizer nagar,
Dist. Vadodara. - 391 750.

Sub : - Water drawl for the Non-Agriculture purpose from Notified River Reservoir - Requirement for the year 2020-21.

Ref. : - 1) Govt. Resolution No. WTR/2005/41/P Dt. 3/7/2007
2) T.O. letter No. VID/PB-I/IND/D.W.REQ.QTY/GSFC/408 Dt. 29/01/2020.
3) Your letter dt. 19/2/2020.

With reference to above subject, it is hereby inform you that your company has demanded to reserve Total 31.8220 MLD (29.3217 MLD for Industrial purpose 2.5003 MLD for Drinking purpose) water for the year 2020-21 vide letter under reference (3).

The demand for the year 2020-21 is same as per the quantity sanctioned for the previous year i.e. 2019-20.

There is no change in your demand for the year 2020-21. Hence it is accepted as per Prevailing Government Rules & Total 31.8220 MLD (29.3217 MLD for Industrial purpose – 2.5003 MLD for Drinking purpose) water Qty. is continued for the year 2020-21. This is for your information and other necessary action please.

Executive Engineer
Vadodara Irrigation Division
Vadodara

Copy respectfully submitted to the Superintending Engineer, Vadodara Irrigation Circle, Vadodara for information please.
Copy fwd to the Deputy Executive Engineer, Irrigation Sub Division, Vadodara for information please.

Permission letter from VMC for water withdrawal

4	The water meter shall be installed and records of daily and monthly water Consumption shall be maintained. No ground water shall be tapped for the project requirements in any case.	Complied. The water meter is installed and records of daily and monthly water Consumption are maintained. The consumption given in the point no. 2 is based on water meter reading. Yes, Refer Point No.3.
5	Total industrial waste water generation from the proposed expansion shall not exceed 2110.2 KL/day [Process condensate (187.8 KL/day), cooling tower bleed of (1199.9 KL/day) & Process waste water (722.5 KL/day)]	Complied. Process condensate (187.8 KL/day) is directly reused in process plant (90.6 KL/day) and for Boiler feed (97.2 KL/day) during normal plant operation. Cooling tower bleed and other process wastewater are treated in RO and total waste water generation from RO plant for the period of Oct.19-March'20 is 214.74 KL/day i.e. within limit of 577 KL/day.
6	Process condensate (187.8 KL/day) shall be directly reused in process plant (90.6 KL/day) and for Boiler feed (97.2 KL/day).	Complied. Process condensate (187.8 KL/day) is directly reused in process plant (90.6 KL/day) and for Boiler feed (97.2 KL/day) during normal plant operation.
7	Process waste water (722.5 KL/day) along with Cooling tower bleed off (1199.9) will further passed through RO plant of capacity 1950 KL/day.	Complied. Yes. Refer point 5.
8	RO permeate (1345.7 KL/day) shall be reused in CT make-up.	Complied. Yes. Refer point 2.
9	RO reject (576.72 KL/day) shall be disposed to Vadodara Enviro Channel Limited (VECL) common effluent channel along with treated effluent of existing plants for ultimate disposal to estuary of Mahi River.	Complied. Yes. Refer point 5.
10	The domestic wastewater generation shall not exceed 6 KL/day after the proposed expansion and it shall be disposed off through septic tank- soak pit.	Complied. Plant domestic wastewater is being sent to new septic tank-soak pit.
11	The company shall provide adequate RO system and it shall be operated regularly and efficiently to achieve the GPCB norms at the final outlet	Complied. GSFC has installed RO plant of adequate capacity (1950 KL/day) for the project and it is operated regularly and efficiently to achieve the GPCB norms at the final outlet.

<table>
<tr><td>12</td><td>The unit shall provide metering facility at inlet and outlet of the ETPs & reuse system and maintain records for the same.</td><td>Complied. Metering facility at inlet (Instantaneous) and outlet of RO plant has been provided and records is maintained for the same. Please note that one auto sampler is also provided in RO reject line going to VECL.
Also flow meters are installed on final effluent discharge lines.</td></tr>
<tr><td>13</td><td>The unit shall provide online monitoring system for monitoring of pH, TOC & flow of treated effluent with an arrangement to reflect the monitored data on the company's server, which can be accessed by the GPCB on real time basis.</td><td>Complied. Real Time Online Monitoring System (RTOMS) has been installed and commissioned by GSFC at final effluent discharge lines since July 2014 for the effluent parameters like pH, COD, BOD, TSS, NH4-N and flow etc. and same is verified by M/s VECL on regular basis. Data is received in GSFC's server. Data is also connected to GPCB server on real time basis and also connected to CPCB. Details of OMS data for compliance period Oct.19 to March'20 in minimum, maximum, average and comparison with GPCB norms are given below:
For compliance period Octl.19 to March '20:
<table>
<tr><td></td><td>ETP Ammonical Nitrogen (Norms: 50mg/l)</td><td>ETP BOD (Norms: 50mg/l)</td><td>ETP COD (Norms: 250mg/l)</td><td>ETP TSS (Norms: 100mg/l)</td><td>ETP pH (Norms: 6.5-8.5 mg/l)</td></tr>
<tr><td>Avg</td><td>19.5</td><td>31</td><td>98.5</td><td>24.8</td><td>7.1</td></tr>
<tr><td>Min</td><td>10</td><td>21</td><td>70</td><td>10</td><td>6.6</td></tr>
<tr><td>Max</td><td>27.9</td><td>42</td><td>155</td><td>43.5</td><td>7.5</td></tr>
</table></td></tr>
<tr><td>14</td><td>A proper logbook of the ETP operation, effluent discharge quality and quantity, reuse of waste water, power consumption, chemical consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.</td><td>Complied. EC Div. is maintaining logbook of the ETPs operation, effluent discharge quality and quantity, power consumption, chemical consumption etc. The data are given below. Data is also furnished to GPCB during their visit and as a part of different returns.
Avg. Quantity of Effluent Discharged for Octl-19 to March-20
<table>
<tr><th>Month</th><th>Effluent Discharged in m3/month</th><th>GPCB Permissible Limit (m3/month)</th></tr>
<tr><td>Oct-19</td><td>365480</td><td>535692</td></tr>
<tr><td>Nov-19</td><td>379603</td><td>535692</td></tr>
<tr><td>Dec-19</td><td>352167</td><td>535692</td></tr>
<tr><td>Jan-20</td><td>342900</td><td>535692</td></tr>
<tr><td>Feb-20</td><td>279822</td><td>535692</td></tr>
<tr><td>Mar-20</td><td>305614</td><td>535692</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>Power consumption and Chemical consumption at ETPs/STP:

<table>
<tr><th rowspan="3">Month</th><th rowspan="3">Power Consumption (KWH)</th><th colspan="2">Chemical Consumption</th></tr>
<tr><th>HCL31-32%</th><th>Caustic-100%</th></tr>
<tr><th>MT</th><th>MT</th></tr>
<tr><td>Oct-19</td><td>430712</td><td>112.5</td><td>58.981</td></tr>
<tr><td>Nov-19</td><td>420299</td><td>94.8</td><td>67.124</td></tr>
<tr><td>Dec-19</td><td>441456</td><td>29.23</td><td>54.357</td></tr>
<tr><td>Jan-20</td><td>443113</td><td>26.18</td><td>67.588</td></tr>
<tr><td>Feb-20</td><td>411932</td><td>24.44</td><td>55.637</td></tr>
<tr><td>Mar-20</td><td>436827</td><td>72.33</td><td>44.592</td></tr>
</table>

All the details are submitted to GPCB as a part of Monthly Patrak/Env. Audit/Env. Statement.</td></tr>
<tr><td>15</td><td>Regular performance evaluation of the ETP shall be undertaken every year to check its adequacy, through reputed institute / organization and its records shall be maintained.</td><td>Complied. Performance & adequacy of the ETPs is evaluated every year by Schedule- I Auditor as a part of Env. Audit. report is maintained.</td></tr>
<tr><td>16</td><td>Rain water harvesting of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface run off, pre- treatment must be done to remove suspended matter.</td><td>Complied. GSFC has installed 16 rainwater harvesting recharge wells in its complex phase manner in 2009 & 2012 to manage the storm water runoff and augment groundwater table.</td></tr>
<tr><td>17</td><td>The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC.</td><td>GSFC shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the GIDC or GPCB or any such authority created for this purpose by the Govt. /GIDC.</td></tr>
</table>

A.3	**AIR**	
18	Natural gas to the tune of 1104 SCM/hr shall be used for proposed gas fired heater (furnace).	Complied. NG is used in two furnaces and total consumption remains within 1104 Sm3/hr at 100 % plant load.
19	HSD to the tune of 650 ltrs/hr shall be used as fuel for proposed stand-by DG set (3000 KVA).	Not required to be operated during the compliance period. However during trial run, HSD used at the rate of 650 lit/hr.
20	Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Complied. DG Set is kept in closed room to mitigate noise pollution.
21	Stack of adequate height shall be provided as per the prevailing norms for flue gas emissions.	Complied. Adequate stack height is provided as under : • Gas Fired Heater (Furnace) stack - 30.0 meter. • D G Set 3000KVA – 15.0 meter
22	Unit shall provide wet scrubbers as APCM for scrubbing of Ammonia from Off gases containing Ammonia.	Complied. K0501: MP Absorber, K0502: LP Absorber and K5210: Vent Scrubber are installed for scrubbing of Ammonia from Off gases containing Ammonia.
23	The scrubbed stream shall be taken to the Waste Water Desorber (K-5441) for ammonia recovery and recovered ammonia shall be taken back to process.	Complied. The scrubbed stream is routed to the Waste Water Desorber (K-5441) for ammonia recovery and recovered stream is recycled as ammonia carbonate solution to OGT (Off Gas Treatment) section for molten urea production.
24	Bag filters shall be proposed as APCM with Melamine pneumatic transport system for control of Melamine dust. Collected dust shall be send back to bagging section.	Complied. F5511 – bag filter is installed on silo for control of melamine dust. Collected dust remained in silo itself.
25	Unit shall provide Wet Scrubber with Melamine Dryer plant for control of NH3 and CO2.	Complied. K0501: MP Absorber and K0502: LP Absorber are installed to scrub NH3 and CO2 in OGT section and its outlet is connected with Melamine dryer stack with higher air flow.

26	Online monitoring system shall be installed on the flue gas and process stacks to monitor the pollutant concentrations. An arrangement shall also be made for reflecting the online monitoring results on the company's server, which can be accessed by the GPCB on real time basis.	OMS is installed on the flue gas and process stacks listed below; 1. Gas Fired Heater (Furnace) - NOx 2. Melamine dryer (MP Absorber LP Absorber)- PM, NOX, NH3 3. Melamine Pneumatic Transport System - PM 4. Vent Scrubber – NH3 OMS is connected to CPCB since 19.04.2020. Manual monitoring for all the parameters is carried out for each stack at regular interval by third party for Oct.19 to March '20.

		MELAMINE-III			MELA-II, DRYER OUTLET				M-III MPTS	M-III vent scrubber
Compliance period		SALT FURNACE								
		SO2	NOX	PM	PM	NH3	SO2	NOx	PM	NH3
Oct .19 to March '20	Avg.	Nil	4.90	6.05	7.02	Nil	Nil	7.25	87.85	17.70
	Min	Nil	4.60	Nil	6.83	Nil	Nil	6.00	84.50	17.20
	Max	Nil	5.20	Nil	7.20	Nil	Nil	8.50	91.20	18.20
GPCB Norms		**100 ppm**	**50 ppm**	**150 mg/ Nm3**	**150 mg/N m3**	**175 mg/N m3**	**100 ppm**	**350 mg/ Nm3**	**150 mg/N m3**	**175 mg/N m3**

<table>
<tr>
<td>27</td>
<td>The air pollution control systems shall be operated efficiently and effectively to achieve the norms prescribed by the GPCB/CPCB at vent / stack outlets. At no time, emission level should go beyond the stipulated standards.</td>
<td>
Complied. Air pollution control systems are operated efficiently and effectively to achieve the norms prescribed by the GPCB/CPCB at vent / stack outlets.
Monitoring of gaseous emission from different stacks of entire Vadodara complex is carried out through NABL approved lab, M/s. Ecosystem Reources Management, Surat (NABL Certificate No: TC-6603, Validity: 14/11/2021). Results for the period Oct'19 to March'20 are confirmed to standard prescribed by statutory authority. Copies of test reports are enclosed separately.

<u>Details (Parameter wise Avg, Min, Max and GPCB norms.) for October.19 to March.20 period are given below</u>:

A. <u>Ammonia-III and Ammonia-IV:</u>
<table>
<tr><td rowspan="2">Compliance period</td><td rowspan="2"></td><td colspan="3">AMMONIA-III</td><td colspan="3">AMMONIA-IV</td></tr>
<tr><td>SO2</td><td>NOX</td><td>PM</td><td>SO2</td><td>NOX</td><td>PM</td></tr>
<tr><td rowspan="3">Oct'19 to March'20</td><td>Avg.</td><td>Nil</td><td>182.90</td><td>Nil</td><td>Nil</td><td>76.55</td><td>5.20</td></tr>
<tr><td>Min</td><td>Nil</td><td>150.60</td><td>Nil</td><td>Nil</td><td>74.60</td><td>5.20</td></tr>
<tr><td>Max</td><td>Nil</td><td>215.20</td><td>Nil</td><td>Nil</td><td>78.50</td><td>5.20</td></tr>
<tr><td colspan="2">GPCB Norms</td><td>286</td><td>400</td><td>150</td><td>286</td><td>400</td><td>150</td></tr>
</table>
*Units: mg/Nm3

B. <u>Urea-I and Urea-II:</u>
<table>
<tr><td></td><td></td><td colspan="2">UREA - I</td><td colspan="2">UREA - II</td></tr>
<tr><td rowspan="2">Compliance period</td><td></td><td>PM</td><td rowspan="2">NH3(mg/Nm3)</td><td rowspan="2">PM kg/ton</td><td rowspan="2">NH3(mg/Nm3)</td></tr>
<tr><td></td><td>kg/ton</td></tr>
<tr><td rowspan="3">Oct'19 to March'20</td><td>Avg.</td><td>0.63</td><td>9.30</td><td>0.56</td><td>41.40</td></tr>
<tr><td>Min</td><td>0.63</td><td>8.00</td><td>0.55</td><td>35.40</td></tr>
<tr><td>Max</td><td>0.63</td><td>10.60</td><td>0.56</td><td>47.40</td></tr>
<tr><td colspan="2">GPCB Norms</td><td>2</td><td>175</td><td>2</td><td>175</td></tr>
</table>
C. <u>Melamine-I:</u>
<table>
<tr><td></td><td></td><td>UREA</td><td colspan="2">MELAMINE-I</td><td>MELAMINE-I,</td></tr>
</table>
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</table>

Compliance period		ECS	SALT FURNACE			DRYER OUTLET	
		NH3	SO2	NOX	PM	PM	NH3
Oct'19 to March'20	Avg.	Nil	Nil	4.3	Nil	22.6	101.3
	Min.	Nil	Nil	4.3	Nil	22.6	101.3
	Max.	Nil	Nil	4.3	Nil	22.6	101.3
GPCB Norms		**175**	**286**	**350**	**150**	**150**	**175**

D. Melamine-II:

Compliance period		MELAMINE-II SALT FURNACE			MELAMINE-II, DRYER OUTLET		AS-II
		SO2	NOX	PM	PM	NH3	PM
Oct'19 to March'20	Avg.	Nil	3.60	Nil	20.99	106.10	17.32
	Min	Nil	3.40	Nil	19.55	103.80	13.70
	Max	Nil	3.80	Nil	22.43	108.40	20.93
GPCB Norms		**286**	**350**	**150**	**150**	**175**	**150**

E. Sulfuric Acid-III and Sulfuric Acid-IV:

Comp. period		SA-III SO2	SA-III ACID MIST	SA-IV SO2	SA-IV ACID MIST
		kg/ton	mg/Nm3	kg/ton	mg/Nm3
Oct'19 to March' 20	Avg.	1.04	23.50	1.45	19.90
	Min	0.98	22.80	1.15	18.60
	Max	1.10	24.20	1.75	21.20
GPCB Norms		2	**50**	**2**	**50**

F. Caprolactam-II:

Compliance		CAPRO.-I WASTE LIQUOR	CAPRO.-II WASTE LIQUOR

period		SO2	NOX	PM	SO2	NOX	PM
Oct'19 to March'20	Avg.	144.6	43.55	86.30	61.70	149.50	20.03
	Min	144.6	35.90	81.20	61.70	147.80	19.95
	Max	144.6	51.20	91.40	61.70	151.20	20.10
GPCB Norms		**286**	**400**	**150**	**286**	**400**	**150**

G. Caprolactam-I:

		CAPRO.-I SO2		CAPRO.-I DE-NOX		CAPRO.-II AS VENT	
Compliance period		SCR.		UNIT		SCR.	
		SO2	NH3	NOX	NH3	SO2	NH3
Oct'19 to March'20	Avg.	Nil	6.63	26.55	7.98	13.93	Nil
	Min	Nil	5.80	25.80	7.90	13.35	Nil
	Max	Nil	7.45	27.30	8.05	14.50	Nil
GPCB Norms		**40**	**175**	**300**	**175**	**286**	**175**

H. Caprolactam-II, DAP, PA:

		CAPRO.II DRYER	DAP DUST SCR.		DAP DUST SCR.		PA ROCK
Compliance period		O/L	A		B		G. MILL
		PM	NH3	PM	NH3	PM	PM
Oct'19 to March'20	Avg.	35.18	Nil	60.55	12.50	57.55	91.78
	Min	22.10	Nil	59.90	Nil	53.26	90.25
	Max	48.25	Nil	61.20	14.80	61.83	93.30
GPCB Norms		**150**	**175**	**150**	**175**	**150**	**150**

I. DAP, PA plant:

		DAP FUMES SCR.		DAP FUMES SCR.		PA PLANT
Compliance period		A		B		FUMES SCR.
		NH3	F	NH3	F	F
Oct'19 to March'20	Avg.	9.85	7.30	10.33	5.35	Nil

	Min	8.20	7.20	10.05	5.20	Nil
	Max	11.50	7.40	10.60	5.50	Nil
GPCB Norms		**175**	**25**	**175**	**25**	**25**

J. Utility Boiler and CVL boiler:

Compliance period		UTILITY BOILER -4,5			UTILITY CVL BOILER		
		SO2	NOX	PM	SO2	NOX	PM
Oct'19 to March'20	Avg.	Nil	10.90	6.75	Nil	40.75	6.43
	Min	Nil	10.90	6.70	Nil	37.20	6.43
	Max	Nil	10.90	6.80	Nil	44.30	6.43
GPCB Norms		**286**	**300**	**150**	**286**	**300**	**150**

K. Water Soluble Fertilizer and Nylon-6:

Compliance period		WSF	Nylon-6
		PM	PM
Oct'19 to March'20	Avg.	12.73	13.90
	Min	12.73	13.33
	Max	12.73	14.46
GPCB Norms		**150**	**150**

L. Co-Generation-III & AS-I :

Compliance period		CO-GEN PHASE-III			AS-I
		SO2	NOX	PM	PM
Oct'19 to March'20	Avg.	Nil	73.55	6.35	16.78
	Min	Nil	71.50	5.70	8.50
	Max	Nil	75.60	7.00	25.06
GPCB Norms		**100**	**600**	**150**	**150**

*Units: mg/Nm3.

The gaseous pollutants emitted from the existing facilities are regularly monitored through NABL approved lab as well as in- house laboratory. The report is submitted to GPCB & MoEF regional office on half yearly basis. Moreover, GSFC has implemented OMS in 28 nos. of stacks and connected to CPCB & GPCB server. Stack emission data is also uploaded on monthly basis to GPCB website. Stack parameters details as per OMS:

Stack parameters details as per OMS for Compliance period Oct.19 to March 20:

Stack Id and Norms	AS_II_DRYER-PM - (Limit: 150 mg/Nm3)	CAPRO_II_AS_VENT -Ammonia - (Limit: 175 mg/Nm3)	CAPRO_II_AS_VENT-SO2 - (Limit: 40 mg/Nm3)
Avg	28.35	23.62	1.29
Min	12.03	111.32	0
Max	51.22	0.21	30.15
Stack Id and Norms	CAPRO_II_DRYER-PM - (Limit: 150 mg/Nm3)	CAPRO_I_DENOX-Ammonia - (Limit: 175 mg/Nm3)	CAPRO_I_DENOX-NOx - (Limit: 300 mg/Nm3)
Avg	9.68	5.29	133.39
Min	6.12	0.44	26.43
Max	34.7	20.89	216.14
Stack Id and Norms	CAPRO_I_SCRUBBER-Ammonia - (Limit: 175 mg/Nm3)	CAPRO_I_SCRUBBER-SO2 - (Limit: 40 mg/Nm3)	CVL_BOILER_STK-NOx - (Limit: 50 ppm)
Avg	90.06	19.50	26.08
Min	7.89	7.32	0.01
Max	174.58	32.67	42.18
Stack Id and Norms	DAP_FUMES_SCR_A-Ammonia - (Limit: 175 mg/Nm3)	DAP_FUMES_SCR_A-HF - (Limit: 25 mg/Nm3)	DAP_FUMES_SCR_B-Ammonia - (Limit: 175 mg/Nm3)
Avg	10.09	1.77	21.03
Min	0.38	1.25	13.42
Max	35.81	2.09	26.32

		Stack Id and Norms	DAP_FUMES_SCR_B-HF - (Limit: 25 mg/Nm3)	PA_FUMES_SCRUBBER-HF - (Limit: 25 mg/Nm3)	PA_ROCK_GRINDING-PM - (Limit: 150 mg/Nm3)	
		Avg	1.86	1.07	55.81	
		Min	1.57	0	0.15	
		Max	8.47	6.12	134.49	
		Stack Id and Norms	Stack_Flue_Gas_2_AMMONIA_III_REFORMER-NOx - (Limit: 400 mg/Nm3)	Stack_Flue_Gas_3_AMMONIA_IV_REFORMER-NOx - (Limit: 400 mg/Nm3)	Stack_Flue_Gas_7_COGENERATION_III-NOx - (Limit: 300 mg/Nm3)	
		Avg	261.67	279.18	119.54	
		Min	1.25	0	0	
		Max	377.98	372.29	199.98	
		Stack Id and Norms	Stack_Flue_Gas_8_CAPRO_1_WASTE_LIQ-NOx - (Limit: 400 mg/Nm3)	Stack_Flue_Gas_8_CAPRO_1_WASTE_LIQ-SO2 - (Limit: 100 ppm)	Stack_Flue_Gas_9_CAPRO_II_IWI-NOx - (Limit: 400 mg/Nm3)	
		Avg	29.56	44.62	190.82	
		Min	0.2	4.91	9.71	
		Max	113.6	162.16	411.91	
		Stack Id and Norms	Stack_Flue_Gas_9_CAPRO_II_IWI-PM - (Limit: 150 mg/Nm3)	Stack_Flue_Gas_9_CAPRO_II_IWI-SO2 - (Limit: 100 ppm)	Stack_P_13_Sulphuric Acid_III_FAT-SO2 - (Limit: 1250 mg/Nm3)	
		Avg	11.86	19.01	1049.44	
		Min	8.58	0.02	317.28	
		Max	14.71	108.46	1221.74	
		Stack Id and Norms	Stack_P_14_SulphuricAcid_IV_FAT-SO2 - (Limit: 1250 mg/Nm3)	Stack_P_1_UREA_I_Prilling_tower-Ammonia - (Limit:175 mg/Nm3)	Stack_P_1_UREA_I_Prilling_tower-PM - (Limit: 150 mg/Nm3)	
		Avg	847.07	19.95	44.93	

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Min</td><td>0</td><td>7.52</td><td>12.55</td></tr>
<tr><td>Max</td><td>1257.02</td><td>35.45</td><td>55.91</td></tr>
<tr><td>Stack Id and Norms</td><td>Stack_P_2_UREA_II_Prilling_tower-Ammonia - (Limit: 150 mg/Nm3)</td><td>Stack_P_2_UREA_II_Prilling_tower-PM - (Limit: 150 mg/Nm3)</td><td>Stack_P_8_Dryer_Outlet-Ammonia - (Limit: 175 mg/Nm3)</td></tr>
<tr><td>Avg</td><td>13.58</td><td>26.31</td><td>13.86</td></tr>
<tr><td>Min</td><td>7.64</td><td>0</td><td>12.04</td></tr>
<tr><td>Max</td><td>18.72</td><td>75.85</td><td>42.88</td></tr>
<tr><td>Stack Id and Norms</td><td>Stack_P_9_Dryer_Outlet-Ammonia - (Limit: 175 mg/Nm3)</td><td>UREA_MELA_ECS-Ammonia - (Limit:175 mg/Nm3)</td><td>UTILITY_BOILER-NOx - (Limit: 50 ppm)</td></tr>
<tr><td>Avg</td><td>16.34</td><td>45.04</td><td>20.66</td></tr>
<tr><td>Min</td><td>9.75</td><td>13.93</td><td>0</td></tr>
<tr><td>Max</td><td>53.44</td><td>102.02</td><td>79.54</td></tr>
</table>
Reason for occasional sms alert has been submitted to CPCB that is mainly due to choking / deposition on lens of OMS & Malfunction. Rarely sms alert due to operation disturbance/startup/shutdown.
</td></tr>
<tr><td>28</td><td>The company shall prepare schedule and carry out regular preventive maintenance of APCMs and assign responsibility of preventive maintenance to the senior officer
of the company.</td><td>Complied. Preventive maintenance is regular practice at GSFC.</td></tr>
<tr><td>29</td><td>The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health).</td><td>Complied. The fugitive emission in the work place environment has been started at four locations in plant.

For existing plants, work place monitoring is carried out at 52 different locations within premises through third party.</td></tr>
</table>

<table>
<tr>
<td></td>
<td>Following indicative guidelines shall also be followed to reduce the fugitive emission.
• Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
• Air borne dust shall be controlled with water sprinklers at suitable locations in the plant
• A Green Belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive and transport dust emission.</td>
<td>For Compliance period October.19 to March.20:

<table>
<tr><th>Parameters</th><th>NH3 (ppm)</th><th>SO2 (ppm)</th><th>HF (ppm)</th><th>NOX (ppm)</th><th>BENZENE (ppm)</th></tr>
<tr><td>Avg</td><td>10.75</td><td>0.38</td><td>0.24</td><td>2.18</td><td>0.11</td></tr>
<tr><td>Min.</td><td>2.4</td><td>0.09</td><td>0.13</td><td>1.3</td><td>0.05</td></tr>
<tr><td>Max.</td><td>19.2</td><td>0.9</td><td>0.41</td><td>3.6</td><td>0.17</td></tr>
<tr><td>Limit</td><td>25.00</td><td>2.00</td><td>3.00</td><td>25.00</td><td>0.50</td></tr>
</table>
Summery in terms of maximum, minimum and average of parameters and test reports is enclosed herewith in hard copy.
Moreover, GSFC has installed 22 Nos. Ammonia and 8 Nos. Sulphur Dioxide Gas Detectors in different plants.

Asphalt roads exist in the company premises. All internal roads for Melamine-III Plant are made of concrete.

There is no air borne dust within the plant.

GSFC has developed green belt area in about 37.56% land area and continuously maintaining the same. Total Area: 328 Ha (Factory premise & Township); Green Belt Area: 123.2 Ha. More details are given in Point No. 65</td>
</tr>
<tr>
<td>30</td>
<td>Airborne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.</td>
<td>There is no air borne dust within the plant.</td>
</tr>
<tr>
<td>31</td>
<td>A proper Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines.</td>
<td>Complied. Various gas detectors for Ammonia, Hydrocarbon and Chlorine are installed in Plant, In case of leakage, same actuates and alarm appears in control room. Such leakages are isolated and repaired.</td>
</tr>
</table>

32	Regular monitoring of ground level concentrations of SO2, NOx, PM10, PM2.5 and NH3 shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.	Complied. Ambient air monitoring is carried out at 4 Nos. locations through NABL approved lab, M/s. Ecosystem Resources Management, Surat (NABL Certificate No: TC-6603, Validity: 14/11/2021). Record is also maintained. Details are given below. AAQM monthly avg. results are also submitted to SPCB as a part of Monthly Patrak and annually as a part of Form 4. Moreover, 4 nos. of online ambient air quality monitoring station (AAQMS) are installed in Nov. 13 at the periphery of premise after intimation to GPCB having PM10, PM2.5, NOx, SO2 & NH3 monitoring facility. Online AAQMS are connected to GPCB & CPCB server. Ambient air analysis reports for compliance period Oct.19 to March'20:

	SO2, Limit - 80 micro gm/m3			**NOX, Limit - 80 micro gm/m3**			**NH3, Limit - 400 micro gm/m3**		
LOCATION	**AVG**	**MIN**	**MAX**	**AVG**	**MIN**	**MAX**	**AVG**	**MIN**	**MAX**
Vadnagar Tank Farm	2.6	2.1	4.5	10.5	9.9	11.3	1.7	1.3	3.1
Dashrath Village	15.0	14.7	15.4	17.6	17.4	18	6.4	5.7	7.4
Nr. Godama Pump,Channi	5.4	4.8	6.9	10.7	9.2	13.5	3.8	3.4	5.1
Near main gate	3.8	3.3	5.5	8.4	7.4	12.1	2.6	2.3	3.5

Location	**RSPM10, Limit – 100 micro gm/Nm3**			**RSPM2.5, Limit - 60 micro gm/Nm3**		
	AVG	MIN	MAX	AVG	MIN	MAX
Vadnagar Tank Farm	68.7	67.8	70.7	25.9	24.8	27.7

Dashrath Village	89.9	89.2	90.3	39.6	38.7	40.5
Nr.GodamaPump,Channi	76.9	72.5	81.6	35.5	33.2	37.3
Near Main Gate	73.0	70.5	75.4	32.2	30.6	33.3

Details of PM parameters of process stacks are given in condition no. 27.

Test report is enclosed separately. AAQM annual avg. results are also submitted to SPCB as a part of form -4.

All the online ambient air quality monitoring stations are connected to GPCB & CPCB server. GSFC has installed 22 Nos. Ammonia and 8 Nos. Sulphur Dioxide Gas Detectors in different plants.

<table>
<tr><td>A.4</td><td>SOLID / HAZARDOUS WASTE</td><td></td></tr>
<tr><td>33</td><td>The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handing and Transboundary Movement) Rules 2008, as may be amended from time to time.

Authorization of the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.</td><td>Complied. GSFC strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handing and Transboundary Movement) Rules 2008.

Authorization of the GPCB has been obtained for collection/treatment/ storage/ disposal of hazardous waste generating from Melamine-III project. Copy of authorization (amended CCA) is attached as annexure-IV (letter vide no GPCB/CCA-VRD-83(11)/ID:21968/492334 dated 24.01.19.

Hazardous Waste generating from Melamine-III plant:
<table>
<tr><th>Sr. No</th><th>Category of Hazardous waste as per the schedules of H.W. Rules, 2016</th><th>Authorized mode of disposal</th><th>Quantity</th></tr>
<tr><td>1</td><td>18.2- Schedule-I (Carbon Residue)</td><td>Disposal at authorized TSDF site</td><td>7.7 MT/year</td></tr>
<tr><td>2</td><td>18.3- Schedule-I (Molten Salt)</td><td>Reuse &/ or Disposal at authorized TSDF site</td><td>66 MT in a span of 7 year</td></tr>
<tr><td>3</td><td>18.2- Schedule-I (high boiling hydro carbon)</td><td>Disposal at secured landfill site of Bharuch Enviro Infrastructure Ltd. (BEIL) / common hazardous waste incinerator</td><td>450 kg/Year</td></tr>
</table>
*No hazardous waste generated from Melamine-III project in compliance period Oct’19 to March’20 as plant was commissioned on 11.03.2019.

Details of Hazardous Waste generated from Vadodara Complex are given below:
<table>
<tr><th>S.no</th><th>Name of waste</th><th>Authorization from GPCB</th><th>Generated during period Oct’ 19-March’ 20 MT</th></tr>
<tr><td>1</td><td>ETP</td><td>40 MT/Year</td><td>7.00</td></tr>
</table>
</td></tr>
</table>

	Bio-Sludge		
2	Used Oil	250 MT/Year	63.5
3	Discarded Containers	10,000 Nos./Year	2288 Nos.
4	Spent Catalyst (Acidic)	35 MT/Year	6.00
5	Spent Catalyst (Alkaline)	275 MT/Year	12
6	Organic Waste	20 MT/Year	10.355
7	Sulphur Muck	350 MT/Year	117.51
8	Carbon residue	7.7 MT/Year	Nil
9	Molten Salt	66 MT (in span of 07 years)	Nil
10	High Boiling Hydro Carbon	8.25 MT (in span of 07 years)	Nil
11	Spent Resin	80 MT/Year	10.4
12	Insulation waste	75 MT/year	45.44
13	Contaminated Cotton rags & other cleaning material	5 MT/Year	0.74

Details of Hazardous waste management:

Sr. No	Name of Waste	Method of Collection/ Storage	Method of Disposal
1	ETP Sludge	Bio sludge dried on Sludge Drying Bed	Given to farmers for use as manure
		Generated during cleaning of tank/pond, packed in HDPE bags	Dispose at NECL
2	Used Oil	Drums/Tanks in Room	Sell to registered refiner

		3	Discarded Containers	Storage Yard	Sell to Vendor
		4	Spent Catalyst (Acidic)	Drums in Room	Dispose at TSDF/ Sell to register recycler
		5	Spent Catalyst (Alkaline)	Drums in Room	Sell to register recycler
		6	Organic Waste	Drums/Bags stored in Room	Dispose at NECL's /SEPPL's incineration facility
		7	Sulphur Muck	Stored in the yards	Reuse/ authorized Secured Disposal facility.
		8	Carbon residue	Store in bags & keep on pallets at specified waste storage area	Dispose at TSDF site.
		9	Molten Salt		Reuse/ or disposal at authorized TSDF site.
		10	High Boiling Hydro Carbon		Dispose at incineration facility (BEIL)
		11	Spent Resin	In Bags / Drums at Utility Plant	Disposal at TSDF facility at M/s. NECL/ co-processing sites.
		12	Insulation waste	Stored in bags at specified storage area.	Disposal at M/s. NECL – TSDF.
		13	Contaminated Cotton rags & other cleaning material		Disposal at M/s. NECL/co-processing sites.
		The same shall be followed for handling hazardous waste of Melamine-III plant. Authorization under HWMH Rules has been obtained vide CCA order No. AWH-78404 of GPCB, valid up to 31/12/21.			

34	Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.	Complied. No hazardous waste generated. The existing wastes are stored in separate designated areas.
35	Molten Salt and Carbon Cartridge shall be disposed off at the Common TSDF site.	No hazardous waste generated. During the generation, It will be disposed off at common TSDF site.
36	Activated Carbon and Dow-therm shall be sent to the Common Hazardous Waste Incineration Facility (CHWIF).	No hazardous waste generated. During the generation, It will be disposed off at CHWIF.

37	The unit shall obtain necessary permission from the nearby authorized TSDF site and CHWIF.	Complied. GSFC is already having membership of TSDF site and CHWIF of M/s. SEPPL, Kutch & M/s. NECL, Nadesari
38	Discarded barrels / containers / bags / liners shall be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination.	Complied. Discarded barrels / containers generated from existing plants, are sold only to the authorized vendors after decontamination.
39	Used oil shall be sold only to the registered recyclers.	Complied. Used Oil of existing plants is sold only to registered re-refiner.
40	Vehicles used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.	Complied. It is a regular practice for disposal of wastes generated from existing plants.
41	All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.	GSFC will make efforts for exploring Co- Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
A.5	**SAFETY**	

42	The company shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended.	Yes, GSFC comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended.
43	The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.	Yes. GSFC comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. DISH approval is already obtained for 40000 MTPA Melamine-III Plant. Approval from the Chief Controller of Explosives is not applicable. On-site and Off-site Disaster Management Plans are in place for the existing complex and the same is followed for Melamine-III plant.
44	Storage of flammable chemicals shall be sufficiently away from the production area.	No chemical stored near production plant.
45	Sufficient no. of fire extinguishers shall be provided near the plant and storage area.	Complied. Following extinguishers are installed at various locations across the Melamine – III plant. • 9 KG DCP(portable): 53 Nos • 6.5 KG CO2 :37 Nos • 25 KG DCP(Trolley): 4 Nos
46	All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.	Complied. No chemical stored near Melamine – III production plant. Dowtherm is stored in tank with dyke wall and all other necessary precaution. Caustic storage is kept away from production facility. Tank is surrounded by dyke wall and necessary precaution.
47	All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained before	Complied. No toxic / hazardous chemicals are stored within the plant. Main raw material like Ammonia, Carbon dioxide and Caustic are transported in piping along with other utilities from other existing production plants.

	commencing the expansion activities.	
48	The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report /EIA.	Complied with the recommendation mention in the EIA report. HAZOP study was carried out during basic engineering phase. Other risk mitigation measures and safeguards are as under : - Safe Design as per international standards. - DCS for close control and monitoring of process parameters. (Trips/interlock/alarms, emergency shutdown system) - Close safety supervision by plant team. - PSV for pressure vessels. - Trained and experienced manpower. - Work permit system for all the jobs. - Good housekeeping is maintained in the area. - Safety committee (DEHSCM) and suggestion skim in place for employee involvement. - Usage of PPEs as per the need and policy. - Internal and external safety audits. - Safety signage. - Fire water network. - Two Fire stations with all fire fighting facilities with competent team and manned for 24 hours. - ECC for any emergency. - Mock drills are carriedout for different scenarios. Operation Phase: RO plant for effluent, Scrubber for gaseous emission; Bag filter has been installed, Disposal of Haz. Waste is carried out as per Rules; Risk–Hazop study conducted and necessary measures incorporated like DCS; Alarm & Trip; PSV; Onsite Em. Plan etc.
49	Wherever applicable, Only flame proof electrical fittings shall be provided in the plant premises.	Complied. Flame proof lighting fixtures, JB, and LCS are fixed at ZONE II, while flame proof motors are installed at ZONE-I of plant as per Hazardous area classification.

50	Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks / containers instead of one single large capacity tank / containers.	Complied. No toxic / hazardous chemicals are stored. Main raw material like Ammonia, Carbon dioxide and Caustic are transported in piping along with other utilities from other existing production pants. Dowtherm is stored in tank with dyke wall and all other necessary precautions and safety requirements. Caustic storage is kept away from production facility. Tank is surrounded by dyke wall and necessary precaution and safety requirements.
51	All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals.	Complied. Bund/dyke walls are provided for Dowtherm and Caustic storage tanks.
52	Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.	Complied. Charging is applicable for Dowtherm and Molten salt broadly. For Dowtherm, charging is done through pump in closed system. In case of Salt, solid salt is charged in tank and melted externally with steam coils. After achieving molten form, same is charged to reactor bundles with molten salt circulation pump. Other chemicals like ammonia, CO2, chlorine, carbamate solution, and melamine solutions are handled either with pump or through piping from battery limit with all safety precautions.
53	Company shall have their own full-fledged occupational health centre (OHC) for monitoring the health of the employees/workers.	Complied. GSFC has its own full-fledged occupational health centre (OHC) located in the complex.
54	Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.	Complied. Personal Protective Equipments are provided to all workers, operators and engineers for routine plant operation and regularly ensured by GSFC.

<table>
<tr><td>55</td><td>First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.</td><td>Complied. First Aid Box is available in control room and regularly checked. Antidotes are not applicable for 40000 MTPA Melamine Plant.</td></tr>
<tr><td>56</td><td>Training shall be imparted to all the workers on safety and health aspects of chemicals handling.</td><td>Complied. Regular training on safety and health aspects are organized by safety and Medical Services department and workers are deputed for the same.

Safety training imparted to workers/employees (including Melamine-III plant) detail for compliance period October'19- March'20 by Safety department :

<table>
<tr><th>Month</th><th>Training Topic</th><th>Nos. of members present</th></tr>
<tr><td rowspan="2">Oct'19</td><td>Training on “Transport Safety”</td><td>04</td></tr>
<tr><td>...DO....</td><td>18</td></tr>
<tr><td rowspan="4">Nov'19</td><td>Training program on ‘ work permit system with detail in confined space Entry permit’ for staff employees/Officers</td><td>09</td></tr>
<tr><td>Contract Sup. Training.</td><td>04</td></tr>
<tr><td>Shutdown Safety Site Talk</td><td>32</td></tr>
<tr><td>....DO.....</td><td>13</td></tr>
<tr><td rowspan="5">Dec'19</td><td>Training program on ‘ Vehicle safety, Crane safety,Forklift safety, Off site Emergency plan for staff employees/Officers</td><td>15</td></tr>
<tr><td>Safety Induction Training to Contract Workers.</td><td>12</td></tr>
<tr><td>...Do...</td><td>12</td></tr>
<tr><td>....Do...</td><td>02</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Jan'20</td><td>Training program on EST Members for staff employees</td><td>22</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td rowspan="6">Feb'20</td><td>.....DO.....</td><td>17</td></tr>
<tr><td>Contract Sup. Training.</td><td>07</td></tr>
<tr><td>Training program on Emergency Preparedness</td><td>10.</td></tr>
<tr><td>Contract Sup. Training.</td><td>01</td></tr>
<tr><td></td><td></td></tr>
<tr><td rowspan="2">March'20</td><td>Due to corona virus all the training postponed.</td><td></td></tr>
<tr><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>57</td><td>Occupational health surveillance of the workers shall be done and its records shall be maintained.

Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.</td><td>Complied. Medical examination (six monthly) of employees is carried out on regular basis by Occupational Health Centre located within premises.
Records are maintained at OHC. Month wise summery of employees who underwent periodical and pre medical examination and tests/investigations carried out during medical examination are given below.

<u>Periodical Medical Examination details for compliance period October-2019 to March 2020:</u>
<table>
<tr><th>Month</th><th>Periodical medical Examination numbers</th></tr>
<tr><td>Oct-19</td><td>268</td></tr>
<tr><td>Nov-19</td><td>256</td></tr>
<tr><td>Dec-19</td><td>301</td></tr>
<tr><td>Jan-20</td><td>317</td></tr>
<tr><td>Feb-20</td><td>307</td></tr>
<tr><td>March- 20</td><td>255</td></tr>
<tr><td>Total</td><td>1704</td></tr>
</table>
</td></tr>
</table>

Pre-Medical Examination details:

Month	Pre-medical Examination numbers
Oct-19	1
Nov-19	4
Dec-19	3
Jan-20	1
Feb-20	7
March- 20	0
Total	**16**

Examination done for Periodical medical examination:

S. No	Examinations	
1	Physical examination	
2	History of past and present illnesses of personal and family	
3	History of any medication and drug and allergic reaction.	
4	ECG (if needed)	
5	PFT	
6	Counseling for habits(tobacco, alcohol, smoking)	
7	Counseling (Nutrition , stress, ergonomics, hazard specification)	
8	Health screening of life style diseases	
9	Screening of HYPERSENSITIVITY of any chemical or any drug	
10	X-ray/USG (if needed)	
11	Blood investigation	1. CBC 2. LFT 3. RFT 4 Lipid profile (prone to cases) 5. RBS/FBS (PP2BS for prone to cases).
12	Urine examination	1. GLUCOSE 2. PROTEIN

58	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.	Melamine product is non-hazardous for transportation.

<table>
<tr><td>59</td><td>The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.</td><td>Yes, Refer Point No. 48</td></tr>
<tr><td>60</td><td>Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.</td><td>Complied. DISH approval is already obtained.</td></tr>
<tr><td>61</td><td>All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages.</td><td>Complied. Paved road already exists in the premises.</td></tr>
<tr><td>A.6</td><td>NOISE:</td><td></td></tr>
<tr><td>62</td><td>The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering control like acoustic insulations, hoods, silencers, enclosures etc. on all source of noise generation.

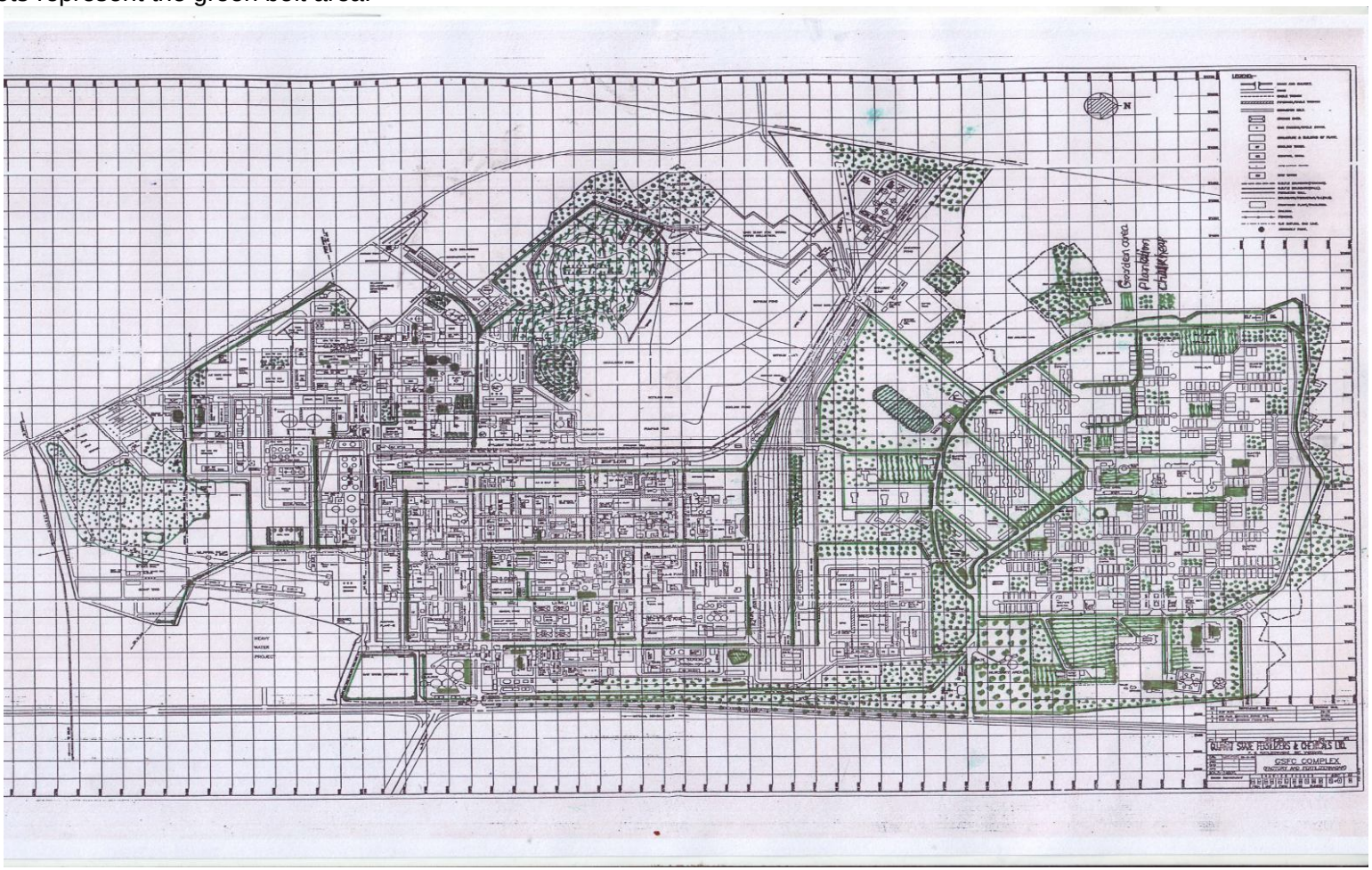
The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.</td><td>Complied. CO2 compressor is enclosed with noise hood.
Salt furnace blowers are also enclosed with noise hoods.
DG set is enclosed in closed room.

Presently, Noise monitoring is carried out at 80 different locations within premises and at ambient air monitoring stations. Details (Max., Min along with comparison with standards) are given below and are in the norms. Copies of test reports are also attached.
<u>Noise Level for compliance period Oct.19 to March’20</u>:
<table>
<tr><th rowspan="2">Location</th><th colspan="3">Noise Level, Limit-75 dB(A) Daytime</th><th colspan="3">Noise Level, Limit-70 dB(A) Night time</th></tr>
<tr><th>Avg</th><th>Min</th><th>Max</th><th>Avg</th><th>Min</th><th>Max</th></tr>
<tr><td>Nr Marketing Yard</td><td>49.1</td><td>35.3</td><td>63.5</td><td>44.6</td><td>30.2</td><td>59.4</td></tr>
<tr><td>Nr Adm. Building</td><td>56</td><td>45.7</td><td>66.8</td><td>55.7</td><td>47.3</td><td>63.2</td></tr>
<tr><td>B/H SA-IV</td><td>48.5</td><td>35.5</td><td>62.7</td><td>49.4</td><td>38.5</td><td>59.7</td></tr>
<tr><td>Vadnagar Tank Farm</td><td>44.4</td><td>30.6</td><td>58.4</td><td>41.95</td><td>27.4</td><td>56.8</td></tr>
</table></td></tr>
<tr><td>A.7</td><td>CLEANER PRODUCTION AND WASTE MINIMISATION:</td><td></td></tr>
</table>

63	The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.	Complied. Melamine-III plant is installed based on the technology by M/s CASALE, Switzerland. It is integrated with OGT (OFF GAS TREATMENT) section which produces molten urea. Both sections of the plant i.e. OGT & MELAMINE have their own waste water treatment sections. Recovered ammonium carbonate solution is reused in OGT section for Urea production. Effluent from both the sections is treated in dedicated RO system. RO reject i.e. inorganic effluent is diverted to final effluent disposal pond. No gaseous stream from the plant either process vent or safety valve outlet is being vented to atmosphere directly without scrubbing. K0501: MP Absorber, K0502: LP Absorber and K5210: Vent Scrubber are installed for scrubbing of Ammonia from Off gases containing Ammonia.
64	The unit shall also undertake following waste minimization measures : a. Metering and control of quantities of active ingredients to minimize waste. b. Use of automated and enclosed filling to minimize spillage. c. Reuse of by-products / materials recovered from the process as raw materials or raw materials substitutes in other process. d. Venting equipment through vapour recovery system. e. Use of high pressure hoses for equipment cleaning to reduce wastewater generation. f. Dry cleaning / mopping of floor instead of floor washing g. Regular preventive maintenance to avoid leakage, spillage etc.	Complied. • Main raw materials like NH3 and CO2 is charged through Metering. • Automated bagging system with complete dust recovery is installed. • Both sections of the plant i.e. OGT & MELAMINE have their own waste water treatment sections. Recovered ammonium carbonate solution is reused in OGT section for Urea production. • No gaseous stream from the plant either process vent or safety valve outlet is being vented to atmosphere directly without scrubbing. K0501: MP Absorber, K0502: LP Absorber and K5210: Vent Scrubber are installed for scrubbing of Ammonia from Off gases containing Ammonia. Scrubbed liquid is recycled in process. • Hydro-jet cleaning with high pressure hoses is performed to clean equipments and heat exchangers. • All offices and control room is cleaned with mopping. Also, field area is cleaned with broom. • Any leakage/spillage point in plant is attended immediately. Preventive maintenance of various machines is carried out to avoid oil

<table>
<tr><td></td><td></td><td>spillage, process fluid leakages etc.</td></tr>
<tr><td>65</td><td>The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road side's and suitable open area in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.</td><td>Complied. The total area of premises is 328 ha. The green belt area is 123.2 Ha which is 37.56% of total plot area. Hence meeting CPCB guidelines.
<table>
<tr><th>Sr. No.</th><th>Particulate</th><th>Total Area (Ha)</th></tr>
<tr><td>1</td><td>Plant Area(Processing)</td><td>174.7</td></tr>
<tr><td>2</td><td>GSFC Township</td><td>34.6</td></tr>
<tr><td>3</td><td>Green Belt (In Plant)</td><td>32.8</td></tr>
<tr><td>4</td><td>Green Belt (Township)</td><td>85.9</td></tr>
<tr><td></td><td>Total area</td><td>328</td></tr>
</table>
GSFC has also made adequate plantation on road sides and other open areas</td></tr>
</table>

1
2

	GSFC layout for Green belt: - Dots represent the green belt area. 	
66	Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.	Complied. Drip irrigation/ sprinkler system is already used for the green belt development within the premises.

B.	**OTHER CONDITIONS:**	
67	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.	Will be followed strictly.
68	All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s: Eco Chem Sales & Services, Surat & submitted vide letter no. NIL dated 21/12/15 and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.	Complied with the recommendation mention in the EIA report. Other risk mitigation measures and safeguards are as under : • Safe Design as per international standards. • DCS for close control and monitoring of process parameters. (Trips/interlock/alarms, emergency shutdown system) • Close safety supervision by plant team. • PSV for pressure vessels. • Trained and experienced manpower. • Work permit system for all the jobs. • Good housekeeping is maintained in the area. • Safety committee (DEHSCM) and suggestion skim in place for employee involvement. • Usage of PPEs as per the need and policy. • Internal and external safety audits. • Safety signage. • Fire water network. • Two Fire stations with all fire fighting facilities with competent team and manned for 24 hours. • ECC for any emergency. • Mock drills are carriedout for different scenarios. Operation Phase: RO plant for effluent, Scrubber for gaseous emission; Bag filter are installed. Disposal of Haz. Wastes will be carried out as per Rules Risk–Hazop study conducted and necessary measures incorporated like DCS; Alarm & Trip; PSV; Onsite Em. Plan etc.

<table>
<tr>
<td>69</td>
<td>A separate Environment Management Cell equipped with full fledged laboratory facilities and qualified personnel shall be set up to carry out the Environment Management and Monitoring functions and</td>
<td>Complied, GSFC has separate environment cell and fully fledged laboratory facilities for environment management and monitoring.

EMC details like name of persons, designation, and technical qualification along with parameter wise equipment available for in-house monitoring are listed below.

EC Dept. Staff list:

<table>
<tr><th>Sr. No.</th><th>Name of employees</th><th>Designation</th><th>Tech. Qualification</th></tr>
<tr><td>1</td><td>S J Parikh</td><td>SVP (U & EC)</td><td>B.E (Chemical)</td></tr>
<tr><td>2</td><td>K S Badlani</td><td>VP (I&MB, U&EC & FU)</td><td>B.E (Chemical)</td></tr>
<tr><td>3</td><td>P D Kachchhi</td><td>Chief (EC) &Dy.MR,</td><td>B.E. (Env.), PDIS</td></tr>
<tr><td>4</td><td>Mrs.S Y Singh</td><td>Sr.Mgr (EC)</td><td>B.E. (Civil)</td></tr>
<tr><td>5</td><td>Prashant U Kadu</td><td>Sr. Mgr (EC)</td><td>B.E. (TEXTILE)</td></tr>
<tr><td>6</td><td>Jaxesh P Trivedi</td><td>Mgr(EC)</td><td>B.E (Chemical), M.Tech(EPD), PDIS</td></tr>
<tr><td>7</td><td>Ashok H Shah</td><td>Addl..Mgr (EC)</td><td>B. Sc (Chemistry)</td></tr>
<tr><td>8</td><td>Jayesh M Dave</td><td>Addl..Mgr (EC)</td><td>B. Sc (Chemistry)</td></tr>
<tr><td></td><td>Prateek Jain</td><td>Dy.Mgr (EC).</td><td>B. Tech. (Chem. Engg.)</td></tr>
<tr><td>9</td><td>Pankaj Kumar Sharma</td><td>Plant Engineer.</td><td>B. Tech. (Chem. Engg.)</td></tr>
<tr><td>10</td><td>Mosmi M Patel</td><td>Env. Engg.</td><td>B.Tech. (RE & EE)</td></tr>
<tr><td>11</td><td>Rajesh K Desai</td><td>Foreman</td><td>B.SC Chemistry, DIPC, MS in Envt. Sci. under DLP</td></tr>
<tr><td>12</td><td>Ambalal K Rana</td><td>Sr.Operator</td><td>B. Sc (Chemistry)</td></tr>
<tr><td>13</td><td>Anil L Arora</td><td>Sr.Operator</td><td>B. Sc (Chemistry)</td></tr>
<tr><td>14</td><td>M R Chandlekar</td><td>Sr.Operator</td><td>ITI</td></tr>
<tr><td>15</td><td>Vipul R Upadhyay</td><td>Sr.Operator</td><td>B. Sc (Chemistry)</td></tr>
<tr><td>16</td><td>Himanshu G Patel</td><td>Sr.Operator</td><td>B. Sc (Chemistry)</td></tr>
<tr><td>17</td><td>PC Maisuriya</td><td>Sr.Operator</td><td>SSC</td></tr>
</table>
</td>
</tr>
</table>

18	H V Shah	Sr.Operator	B. Sc (Chemistry)
19	Hitendra R Desai	Sr.Operator	B. Sc (Chemistry)
20	JayeshSolanki	Sr. Operator	Old SSC
21	Rajesh H Patel	Sr. Operator	B. Sc (Chemistry)
22	Kanubhai B Padhiyar	Operator	B. Sc (Chemistry)
23	Hitesh D Patel	Operator	MSC (Env. Sci.)
24	Bhavesh C Patel	Operator	MSC (Industrial Chemistry)
25	Ranjitsinh C Shinora	Jr. Operator	SSC Pass
26	Pankaj C Patel	Jr. Operator	HSC Pass
27	Biren R Patel	Jr. Operator	M.Sc. Env. Sci. Cert. Disaster Management PDIS
28	Purvish S Shah	Jr. Operator	Msc. Env. Sci. Cert. Disaster Management
29	V R Rabari	Jr. Operator	HSC
30	Jayesh S Patel	Attendant	Bsc. Chemistry
31	Bhavdip S Vamja	Assistant Operator	B.Sc Chemistry
32	Gami Ravikumar	Assistant Operator	B.Sc Chemistry

* Total 15 nos. workmen available, which include 5 regular employees and 10 contract workman.

Details of parameter-wise equipments available for in-house environment monitoring:

a) Effluent Monitoring:

Sr. No	Parameter analyzed	Equipment / Instrument used
1	p H	p H meter

	a separate budget shall be allocated for this purpose.	

2	Total Dissolved Solids	Analytical balance, Water bath, Oven, Desiccators.
3	Suspended Solids	Analytical balance, Filter Assembly, Oven, Desiccators.
4	Ammoniacal Nitrogen	Volumetric Analysis
5	Total Nitrogen	Kjeldal's distillation, Auto Distillation Apparatus & Digester
6	Phosphates	Spectrophotometer
7	Chemical Oxygen Demand	COD digester, Stirrer, Volumetric analysis by titration
8	APHA	Visually by comparing with Standard APHA solution
9	Fluoride	Fluoride Ion selective electrode / Spectrophotometer
10	Oil and Grease	Separation by separating funnel, Water bath, Oven, Desiccator, Analytical Balance

b) Gaseous Emission Monitoring:

Sr. No	Parameter analyzed	Equipment / Instrument used
1	SO2 & SO3	Glass Scrubbing bottle
2	CO	Gas Chromatograph
3	CO2	Gas Chromatograph/ orsat gas analyzer
4	NH3	Glass Scrubbing bottle, Dragger Tube
5	F	Spectrophotometer& Glass Scrubbing bottle, Dragger Tube
6	NOX	Spectrophotometer& Glass Scrubbing bottle

For spot analysis of gaseous pollutant (Equipment: Dragger tube (available) and pump)

Complied. Separate budget is also allocated for environmental dept. activities every year. Actual operational expenses for Env. Mgmt. Cell for the year 2019-20 is 16.97 crores.

70	The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.	Complied, we are ensuring compliance of all the applicable statutory requirements. Compliance of CCA conditions are enclosed as Annexure – III.
71	During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.	Complied. Dedicated slop system is installed in plant. Any spillage, drain from the plant is diverted to such system and then there is a facility for recycled back to the process to avoid contamination with domestic waste water or storm water.
72	Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	Complied. Pucca flooring is provided for internal roads. Also, to avoid soil contamination, suitable brick lining is provided near acid/alkali handling area.
73	Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly.	Complied. Any leakage / spillage are attended immediately. Also, process piping installed in plant equipped with suitable gaskets to avoid such incidents.
74	No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	Before any expansion or modifications in plant we will take necessary statutory permission from concern authority.

75	The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act,1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted

<table>
<tr>
<td>76</td>
<td>The project proponent shall comply all the conditions mentioned in “The Companies (Corporate Social Responsibility Policy) Rules, 2014” and its amendments from time to time in a letter and spirit.</td>
<td>Complied, it is ongoing activity. Details are given below.

CSR Expenditure incurred from October’19 – March’20:
<table>
<tr><th>Sr.</th><th>Details</th><th>Amount Rs.</th></tr>
<tr><td>1</td><td>Contribution & Donations</td><td>38,91,188</td></tr>
<tr><td>2</td><td>Drinking Water Facility</td><td>12,00,000</td></tr>
<tr><td>3</td><td>GSFC University</td><td>4,00,00,000</td></tr>
<tr><td>4</td><td>Education at BU, SU and FU</td><td>2,70,00,000</td></tr>
<tr><td>5</td><td>Sikka Unit</td><td>25,00,000</td></tr>
<tr><td colspan="2">Total</td><td>7,45,91,788</td></tr>
</table>
GSFC gives top priority to Corporate Social Responsibility. Since long, GSFC has started practice and established Corporate Village Cell Committee which is taking care of surrounding villages by extending cooperation in the area of education, health and infrastructure development. In 2012-13, GSFC formed an independent CSR Cell in place of corporate village cell. This cell is formed to promote the overall development, progress and betterment of the people belonging to weaker sections of society with a view to improve ‘Human Development Index’ (HDI). Some of the work continued in this area since long are as under:

Providing drinking water facility free of cost to nearby villages
Providing employment to residents of nearby villages
Providing education to nearby villages by running a higher secondary school
Development of other infrastructure like roads, drainage system etc for the nearby villages
Educating the young farmers about the developments in the agriculture field
Extending soil and water testing facility for both potable and irrigation water at reasonable rate.
Publishing literature like Krishi Jivan, Sardar Krushi Mahiti Patrak for increasing the awareness in field of agriculture
Arranging medical camps
Providing financial supports in case of any calamity to the nearby villagers.

.Off and on, GSFC contributes to Chief Ministers’ Relief Fund as well as to the Gujarat Government Developmental efforts like Vibrant Gujarat Global Investors’ Meet.</td>
</tr>
</table>

<table>
<tr><td>77</td><td>The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk assessment study report as well as proposed by project proponent.</td><td>Complied. All the environment protection measures, risk mitigation and safe guards recommended in EMP report and Risk assessment study report are ensured.
Details mmentioned in Point no. 48.</td></tr>
<tr><td>78</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein.

The funds so provided shall not be diverted for any other purpose.</td><td>Complied. GSFC has provided adequate funds to implement the conditions stipulated by the MoEF and it is integral part of the project.

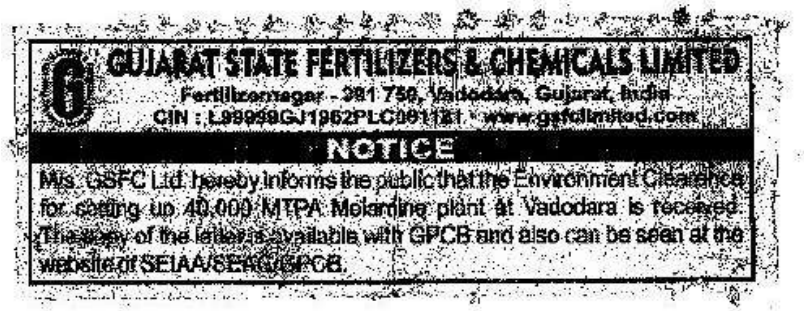
The fund earmarked to implement the conditions has been utilized for intended purpose only.

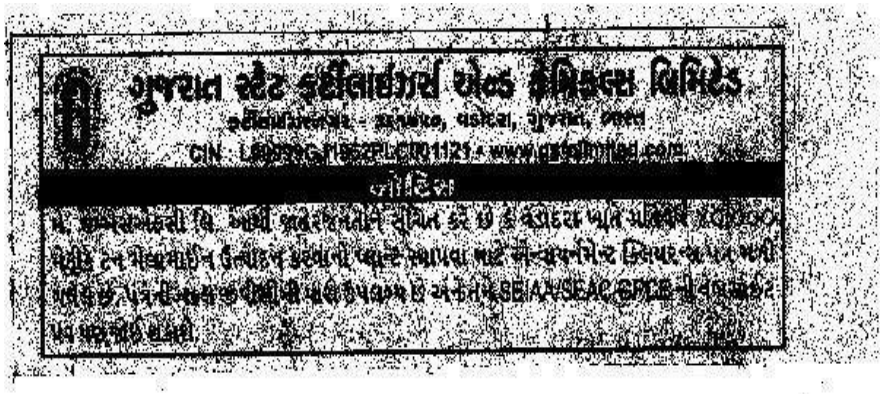
Capital Expenditure incurred over last 3 years are given below.
<u>Past three year investment in pollution control:</u>

<table>
<tr><th>Description</th><th colspan="3">Expenses in lakhs</th></tr>
<tr><td></td><td>2016-17</td><td>2017-18</td><td>2018-19</td></tr>
<tr><td>Investment in Pollution control</td><td>3617.01</td><td>4139.33</td><td>4129.21</td></tr>
<tr><td>Total Investment</td><td>13064.44</td><td>422581.47</td><td>505740.60</td></tr>
</table>

<u>Operation Expenses for Environment Control division for the year 2019-20</u> :
Rs. 16.97 Crores

Budget is prepared every year for the expenses to be carried out by Environment Control dept.</td></tr>
</table>

79	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the website of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Guajarati language and the other in English. A copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied, GSFC has published advertisement of Env. Clearance in local news papers i.e. Indian Express & Sandesh newspapers on 15/04/2016. We did not get the copy of environmental clearance due in time, hence we had to go to SEIAA to collect copy of environmental clearance personally and after getting the copy, we have published within 7 days. The copy of same is forwarded by letter no- SVP/EC-Mel-Exp/2016 on dated 18 April 2016 to MoEF. <u>Published advertisements are as:</u>  GUJARAT STATE FERTILIZERS & CHEMICALS LIMITED Fertilizernagar - 391 750, Vadodara, Gujarat, India CIN : L99999GJ1962PLC001121 www.gsfclimited.com NOTICE M/s. GSFC Ltd. hereby informs the public that the Environment Clearance for setting up 40,000 MTPA Melamine plant at Vadodara is received. The copy of the letter is available with GPCB and also can be seen at the website of SEIAA/SEAC/GPCB. THE INDIAN EXPRESS 15.04.16, Pg. 9

		 SANDESH, 15.04.16, Pg. 7
80	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	Noted, In case of stipulation of additional conditions by SEIAA, we will comply the same.
81	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.	Complied. Half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies are being send to the regulatory authority concerned on regular interval since December 2016.

82	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted
83	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Noted and will be taken care of. Complied, we are ensuring compliance of all the applicable statutory requirements. Compliance of CCA condition are enclosed as Annexure – III.
84	The SEIAA may revoke or suspend the clearance, if implementation of any of the conditions is not found satisfactory.	Necessary Compliance given against the each condition of EC.
85	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.	Necessary Compliance given against the each condition. In case of stipulation of additional conditions by SEIAA, we will comply the same.
86	The project authorities shall inform the GPCB, Regional Office of the Ministry and SEIAA, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied. Project approved on 22/12/2014 by Board of Directors. Scheduled date of start of construction activities - April 2016. Project has been capitalized on 11/03/2019. CCA amendment for Melamine –III plant received from GPCB vide letter no. GPCB/CCA-VRD-83(11)/ID:21968/492334 dated 24/01/19. Copy of the same is enclosed as Annexure – IV.
87	This environmental clearance is valid for seven years from the date of issue.	NOTED
88	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	NOTED

Monitoring the Implementation of Environmental Safeguards Ministry of Environment & Forests
Western Region, Regional Office, Bhopal MONITORING REPORT

PART – 1 DATA SHEET

No.	Conditions	Compliance
1.	**Project type**: River-valley / Mining/ Industry/Thermal/Nuclear/Others(specify)	Industrial
2.	**Name of the Project**	40000 MTPA Melamine Expansion Plant
3.	**Clearance letter(s) OM No. and date**	No. SEIAA/GUJ/EC/5(f)/228/2016 dated 31/03/2016
4.	**Location** a) District (s) b) State (s) c) Location Latitude / Longitude	 Vadodara Gujarat 22^0 22' 14.07" N and 73^0 09' 21.26" E
5.	**Address for Correspondence** Address of the Concerned Project Chief Engineer (with Pin Code & Telephone/ Telex/ Fax Numbers)	Mr. H.V. Shah, Chief (P- Urea & Melamine) Gujarat State Fertilizers & Chemicals Limited P.O. Fertilizernagar – 391750 Dist. ; Vadodara, Gujarat Tele. No. : (0265) 3092831, 09909965842
6.	**Salient Features** a) of the Project b) of the Environmental Management Plans	a. Project: Brown field project utilizing the land acquired by scraping old Ammonia plant. b. EMP: The technology provides a high level safety system with high pressure non- catalytic process with the reaction in liquid phase for the production of proposed Melamine. Both sections of the plant i.e. OGT & MELAMINE have their own waste water treatment sections. Recovered ammonium carbonate solution is reused in OGT section for Urea production. Effluent from both the sections is treated in dedicated RO system. RO reject i.e. inorganic effluent is diverted to GSFC's common facility. RO permeate is recycled as raw water for cooling tower make- up. Necessary scrubbers and bag filter has been installed as a part

<table>
<tr><td></td><td></td><td>of Air Pollution Control Measures. The recovered material is recycled back in to process. Installed OCEMS.
Taken authorization of Haz. Wastes and disposal will be carried out as per Rules during its generation.</td></tr>
<tr><td>7.</td><td>Breakup of the Project Area
a) Submergence area : Forest & Non-Forest
b) Others</td><td>Not Applicable
Utilizing existing land by scraping old Ammonia plant.</td></tr>
<tr><td>8.</td><td>Breakup of the project affected population
with enumeration of those Losing Houses / Dwelling Units only, Agricultural Land only, Both Dwelling Units & Agricultural Land &I Landless Laborers/ Artisans :
a) SC, ST / Adivasi
b) Others
(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out and give details & year of survey)</td><td>Not Applicable</td></tr>
<tr><td>9</td><td>Financial Details :
a) Project Cost as originally planned and subsequent revised estimates and the year of price Reference.

b) Allocation made for environmental management plans with item wise and year wise break-up.

c) Benefit cost ratio/Internal rate of Return and the year of assessment
d) Whether (c) includes the cost of environmental management as shown in the above</td><td>a. Estimated Cost Rs. 930 Crore -Year 2015.

b. It is included in the project cost.
<table>
<tr><td>RO plant for wastewater</td><td>Recovery of water</td></tr>
<tr><td>Vent Scrubber</td><td>Ammonia Scrubber</td></tr>
<tr><td>Melamine pneumatic transport system</td><td>Bag Filter</td></tr>
<tr><td>Melamine Dryer MP absorber* LP absorber *</td><td>Not required APCM for dryer as NG is used as fuel.
Scrubber for NH3, CO2</td></tr>
</table>
c) Not applicable at this stage

d) Not applicable</td></tr>
</table>

	e) Actual expenditure incurred on the Project so far. f) Actual expenditure incurred on the environmental management plans so far.	e) Till date expenditure is 807 crores. f) All environment aspects are being considered by licensor. Actual costing towards environmental management plans is included in the project cost. RO package cost is approximately 1.60 crores.
10	**Forest Land Requirement** a) The status of approval for diversion of forest land for non-forestry use b) The status of clearing felling. c) The status of compensatory afforestation, if any. Comments on the viability & sustainability Of compensatory afforestation program In the light of actual field experience so far	Not Applicable
11	**The Status of Clear Felling** in non-forest Areas (such as submergence area or Reservoir, approach roads), if any with Quantitative information required.	Not Applicable
12	**Status of Construction** (actual and/ or planned) a) Date of commencement (Actual and/or planned) b) Date of completion (Actual and/or planned)	 29/03/2016 17/12/2018
13	**Reason for the delay** if the project is yet to start	-
14	**Dates of Site Visits** a) The dates on which the project was monitored by the Regional Office on previous occasions, if any b) Date of site visits for this monitoring report.	As a part of Melamine-III CTO application, GPCB visited plant on 27th Sep 2018 and latest visit of GPCB officials in factory complex was on 15.02.2020. Director of MoEF, Bhopal visited on 09/09/2013, and Scientist (D) of MoEF visited on 08/07/17, 17.07.2018 & 26.07.19.

EMP as per EIA Report of 40000 MTPA Melamine –III Project

Environmental Management Plan during Operational phase

Sr. No.	Observation	Action taken
1	Management Plan for Molten Urea	As per the specific compliance condition no. (1).
2	Water & Waste Water Management: Total quantity of effluent to be treated in R.O shall not be more than 2110.2 KLD and waste water to send existing ETP and treated effluent to be discharged after achieving GPCB norms.	As per the specific compliance condition no. (5).
3	Air Management: Flue gas and Process gas shall be discharged as per GPCB/CPCB norms. Regular maint. and cleaning of APC is to be carried out to avoid fugitive emission.	As per the specific compliance condition no. (26), (29) & (32).
4	Management plan for handling of sewage, solid/hazardous waste storage & disposal to avoid contamination of Land.	GSFC has waste storage area having impervious floor, pucca roof and boundary wall facility. Sewage is treated in septic tank/soak pit.
5	Noise management Plan	As per the specific compliance condition no. (62).
6	Management plan for solid/hazardous waste	As per the specific compliance condition no. (33).
7	Occupational Health & Safety including work place monitoring and budget allocation of OHS	As per the specific compliance condition no. (29) & (57).
8	Management Plan for Fire Fighting system	As per the specific compliance condition no. (45) & (48).
9	Do's & Don't	A safety checklist in the form of Do's & Don't of safety related measures are prepared and implemented.

EMP as per EIA Report of 40000 MTPA Melamine –III Project

Environmental Monitoring during Operational phase

S. No	Potential Impact	Action to be Followed	Parameters for Monitoring	Frequency of Monitoring	Compliance Status
1.	Air Emission	AAQ to be monitored at 2 to 3 places. Gaseous emission to be monitored for one flue gas and three process stack.	SPM,RSPM, SO_2 & NOx, NH_3	As per CPCB/GPCB requirement	Quality of gaseous emission and AAQ is as mentioned in condition no. 32 for AAQ and condition no. 26 for gaseous emission.
		Meteorological data	Wind speed, direction, temp., relative humidity and rainfall.	Continuous monitoring using automatic weather station	Done through third party and Online at centre of premise. (Third party analysis are mentioned in condition no. 26)
2.	Noise	Noise generated from at source of noise generation to be monitored	Spot Noise Level recording.	Periodic during Operation phase	Carried out at the periphery of GSFC premise as mentioned in condition no 62.

3.	Wastewater Discharge	Compliance tow	pH, TSS, TDS, BOD, COD and Oil& Grease.	Periodic or As per CPCB/GPCB requirement	Discharged effluent is analyzed on daily basis. Quality of discharged effluent is as mentioned in condition no. 13.
4.	Solid Waste/Hazardous Waste	Check compliance to HWM rules	Quality & quantity monitoring	Periodically	No hazardous waste is generated from Mela-III plant during Oct.19-March.'20. Other Haz. Waste details are given in condition no 33.
5.	Occupational Health & Safety	Employees and migrant labor health checkups	All relevant parameters	Regular checkups as per factories act.	Regular check up is carried out at Occupational Health Centre. Details mentioned in condition no. 57.
6.	Drainage System	Regular checking of effectiveness of drainage system to be done.	Catch pits linked to storm water channel.	Regular checking & cleaning.	Regular checking and cleaning of channels is carried out.