DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO CONDITIONS OF ENVIRONMENT CLEARANCE AND ENVIRONMENT MANAGEMENT

Compliance Status (for the period of **April 2020 to September 2020)** of Environmental Clearance issued by SEIAA, Gujarat, vide letter **Reference no. SEIAA/GUJ/EC/6(b)&7(e)/37/2009 Dated 09.04.2009**

(**Detail of project:** "Installation of chemical storage tanks and expansion of cargo handling facility" at GIDC, Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s Gujarat Chemical Port Terminal Company Limited.)

<table>
<tr><th>A</th><th>SPECIFIC CONDITION</th><th>COMPLIANCE STATUS</th></tr>
<tr><td>A.1</td><td colspan="2">WATER</td></tr>
<tr><td>1.</td><td>There shall be no increase in water consumption & waste water generation from the project expansion.</td><td>There is no increase in the existing water consumption and wastewater generation from the consented quantities.

Details of water consumption during the last 3 years appended as below for ready reference –

<table>
<tr><th>Year</th><th>2017-18</th><th>2018-19</th><th>2019-20</th></tr>
<tr><td>Allocated water supply by GIDC KLD</td><td>1590</td><td>1590</td><td>1590</td></tr>
<tr><td>Average consumption of water in KLD</td><td>613</td><td>512</td><td>651</td></tr>
</table>

Water consumption during April 2020.to September 2020 is 593 KLD.

Details of wastewater generated during the last 3 years is appended as below for ready reference –

<table>
<tr><td></td><td>Year</td><td>2017-18</td><td>2018-19</td><td>2019-20</td></tr>
<tr><td>Industrial</td><td rowspan="2">Consented Quantity in KLD</td><td>125</td><td>125</td><td>125</td></tr>
<tr><td>Domestic</td><td>40</td><td>40</td><td>40</td></tr>
<tr><td>Industrial</td><td rowspan="2">Generation in KLD</td><td>2.5</td><td>2.8</td><td>2.7</td></tr>
<tr><td>Domestic</td><td>38.72</td><td>36.33</td><td>35.43</td></tr>
</table>

<table>
<tr><td></td><td>Year</td><td>(April 19 to March.20)</td></tr>
<tr><td>Industrial</td><td rowspan="2">Consented Quantity in KLD</td><td>125</td></tr>
<tr><td>Domestic</td><td>40</td></tr>
<tr><td>Industrial</td><td></td><td>3</td></tr>
</table>
</td></tr>
</table>

		<table><tr><td>Domestic</td><td>Generation in KLD</td><td>12</td></tr></table> **COMPLIED.**
2.	The storm water drains shall be kept dry and shall not be used for discharge of any kind of waste. The project proponent shall prepare an Action Plan for the monsoon period in which the water quality flowing outside the premises shall be monitored for hydrocarbon, oil & grease parameters and its records shall be maintained & submitted to GPCB.	Storm water drains are being kept dry and no waste is been discharged in it. Pre monsoon clean up procedure is being followed to keep storm water drain clean and dry.   During monsoon period storm water quality is being monitored for hydrocarbon and oil & grease parameters through MoEF&CC and NABL accredited laboratory and its record is being maintained. You may please refer **Annexure 73** in the main report. **COMPLIED.**
3	Dumping of the waste or washing shall not be allowed shore areas.	We have implemented and adhered to “SHIP SHORE Safety Checklist Protocol” for every Ship and is being attested by both GCPTCL (Loading Master) and Ship (Chief Officer). One of the points (Point No 19) in the Checklist is disposal of garbage/air pollution is not allowed at Jetty/anchorage and is being acknowledged and followed by the Chief Officer of the Ship. Vessels visiting the berths do not allowed to release/discharge oily waste, ballast & solid waste including wastes in marine environment and is being ensured through implementation of “Indemnity Letter and Condition of Use of GCPTCL Jetty. One such letter duly endorsed by the Vessel Master is attached as **Annexure 04** in the main report. **COMPLIED.**
4	Oil spill contingency plan shall be prepared & implemented.	Oil Spill Contingency Plan is prepared and implemented. Supply and maintenance of Oil Spill Equipment including competent persons to handle Oil Spill, if any is outsourced. Work Order has been awarded to competent agency M/s. Sea Care Marine Services for providing Tier 1 oil spill response (OSR) as per IMO (International Maritime Organization) on 24 x 7 basis.

		Copy of valid work order, typical sample of certificate of training and maintenance schedule for OSR equipment is attached as **Annexure 09, 10 and 11** respectively in the main report. GCPTCL conducts an emergency rehearsal (Mock Drill) as a part of evaluating the response of the agency including mobilization of OSR equipment and its effectiveness. **COMPLIED.**
A.2	**AIR**	
5	Gaseous emission at workplace shall be controlled and kept below the limits prescribed by the Factories Act and Rules. Their record shall be maintained.	Gaseous emissions at work places are monitored and records are maintained. Following best practices/RAGAGEP have been implemented with a view to eliminate/reduce the fugitive emissions. • Handling of products through closed systems – use of piping and loading arms for transfer/handling of products Flange joints in the piping network are of full faced gasket joint and valves (stem) equipped with graphite fitting etc.  • Material transfer pumps are of centrifugal type and are provided with double mechanical seals. • Prevention/Reduction of evaporation loss - Rim seal type vapour seal mechanism is provided for storage tanks containing highly volatile products i.e. class 'A' petroleum products. 

- Leak Detection and Alarm Repair 103 LEL detectors are installed at prominent locations to continuously measure the release of hazardous material, if any from the pipeline/storage tank etc. and subsequent initiating corrective measures.

Monitoring of Fugitive Emission –
Regular monitoring of fugitive emission (Volatile Organic Component) is carried out through Schedule-I Environmental Auditor – M/s. MANTRA (Man Made Textile and Research Association, Gujarat) - refer **Annexure 30** in the main report.

Summary of fugitive emission monitoring for April 2020 to September 2020 is appended as below for ready reference.

Location	VOC (mg/m3)
Near Atmospheric Gantry	1.16
Near Pressurize Gantry	1.21
Near BOG Area	1.26
Near LPG Tank Farm	1.32
Near Propane Tank Farm	1.25
Near Py Gas Tank Farm	1.08
Near Methanol Tank Farm	1.19
Near Px Tank Farm	1.02
Near Hydrocarbon Tank (Naphtha)	1.48
Near Acetic Acid Tank Farm	1.42

No limit prescribed for VOC.

Analytical report of one such fugitive emission monitoring is attached as **Annexure 31** in the main report.

Workplace monitoring –

Workplace monitoring for presence of hazardous chemicals, if any is carried out through MoEF&CC (recognition valid till 11.03,2021) and NABL accredited laboratory (Certificate No. TC-7099, valid till 26.03.2022)– M/s. Kadam Environmental Consultants, Gujarat –details attached as **Annexure 33** in the main report.

Summary of monitoring of hazardous chemical at workplace for **(April.2020 to September.2020)** is appended as below for ready reference.

Hazardous chemical	Average mgm3	Minimum mg/m3	Maximum mg/m3
Px	5.39	3.70	6.98
Methanol	3.20	1.61	5.18
Hydrocarbon	1.96	1.30	2.80
Butadiene	ND	ND	ND
Acetic Acid	ND	ND	ND
Caustic Fumes	ND	ND	ND
Propylene Oxide	ND	ND	ND

Report of one such workplace monitoring for the reporting period is attached as **Annexure 32** in the main report**.**

COMPLIED.

6 | The gaseous emissions and particulate matter from various sources shall confirm to the standards prescribed by GPCB. At no time, the emissions levels shall go beyond the stipulated standards. In the event of failure of pollution control system adopted by the respective unit shall not be restarted until the control measures are rectified to achieve the prescribed standards.

Ambient Air Quality Monitoring (VOC) –
Ambient air quality monitoring for the presence of VOC is carried out through schedule 1 Environment Auditor – M/s. MANTRA (Man Made Textile and Research Association, Gujarat). Refer **Annexure 30** in the main report**.**

Summary of fugitive emission monitoring for April 2020 to September 2020 the reporting period is appended as below for ready reference.

Location	VOC (mg/m3)
Near Atmospheric Gantry	1.16
Near Pressurize Gantry	1.21
Near BOG Area	1.26
Near LPG Tank Farm	1.32
Near Propane Tank Farm	1.25
Near Py Gas Tank Farm	1.08
Near Methanol Tank Farm	1.19
Near Px Tank Farm	1.02
Near Hydrocarbon Tank (Naphtha)	1.48
Near Acetic Acid Tank Farm	1.42

<table>
<tr><td></td><td></td><td>–
No limit prescribed for VOC.

Analytical report of one such fugitive emission monitoring is attached as Annexure 31 in the main report.

<u>Ambient Air Quality Monitoring</u> –
Ambient Air quality monitoring for the general parameters as prescribed in the CC & A is carried out through MoEF&CC (recognition valid till 11.03,2021) and NABL accredited laboratory (Certificate No. TC-7099, valid till 26.03.2022) – M/s. Kadam Environmental Consultants, Gujarat. Refer Annexure 33 in the main report.

Summary of Ambient Air Quality Monitoring for the reporting period i.e., (April .2020 to September 2020) is appended as below for ready reference-

Location – Near Store

<table>
<tr><th>Parameter – AAQM</th><th>GPCB consented limit - µg/m3</th><th>Average µg/m3</th><th>Minimum µg/m3</th><th>Maximum µg/m3</th></tr>
<tr><td>PM10</td><td>100</td><td>64.4</td><td>24.00</td><td>94.00</td></tr>
<tr><td>PM2.5</td><td>60</td><td>19.40</td><td>16.00</td><td>25.00</td></tr>
<tr><td>SO2</td><td>80</td><td>7.45</td><td>5.84</td><td>8.47</td></tr>
<tr><td>NOx</td><td>80</td><td>13.81</td><td>10.07</td><td>18.72</td></tr>
<tr><td>HCL</td><td>200</td><td>5.19</td><td>ND</td><td>16.54</td></tr>
<tr><td>Cl2</td><td>100</td><td>3.05</td><td>ND</td><td>5.91</td></tr>
<tr><td>CO</td><td>5000</td><td>461</td><td>ND</td><td>1340</td></tr>
<tr><td>HC</td><td>160</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>NH3</td><td>400</td><td>4.16</td><td>ND</td><td>11.47</td></tr>
<tr><td>H2S</td><td>500</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>CS2</td><td>2000</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>HF</td><td>60</td><td>0.09</td><td>ND</td><td>0.23</td></tr>
</table>

All the parameters are well within the prescribed limit.

Note – reference method of analysis is indicated in the report and BDL = Below Detectable Limit/Not Detected.

Report of Ambient Air Quality Monitoring for the reporting period is attached as Annexure 34 in the main report.

COMPLIED.</td></tr>
<tr><td>A 3</td><td colspan="2">SOLID WASTE</td></tr>
<tr><td>7</td><td>The unit must strictly comply with the rules and regulations with regards to</td><td>GCPTCL strictly comply with rules and regulation with regards to handling and disposal of hazardous waste in accordance with</td></tr>
</table>

handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management & Handling) Rules, 2003. Authorization from the GPCB must be obtained for collection/treatment/ storage/disposal of hazardous waste.

hazardous waste (Management, Handling) Rules 2003, as may be amended from time to time.

AUTHORIZATION –

GCPTCL had obtained authorization from GPCB for collection, storage, transportation and disposal of hazardous waste vide CC & A order no. AWH- 98682 dated 14.02.2019, valid upto 25.11. 2023..

Copy of CC & A is attached as **Annexure 35** in the main report.

MEMBERSHIP SUBSCRIPTION –

The hazardous wastes generated is being disposed in an environment friendly manner to the GPCB authorized agency/recycler i.e. M/s. BEIL, M/s. Bombay Barrel (for the reporting period).

Copy of Consents and Authorisation for BEIL, Anas Green and Ambuja Cement is attached as **Annexure 36, 37 and 38** respectively in the main report.

Summary of disposal of hazardous waste from April 2019 to March 2020 is appended as below for ready reference.

SN	Title – Hazardous Waste	Category	Consented quantity MT/ Year	Total disposal during Apr 2019 to March 2020
1	Used or Spent Oil	5.1/I	7.2	NIL
2	ETP Sludge	35.3/I	6.0	NIL
3	Discarded Containers/Barrels/ Liners	33.1/I	3.0	2.56 MT
4	Used Foam pig of chemical	C-1/II	12.0	2.94 MT
5	Oil Soaked Cotton & Other waste	33.2/I	10.0	NIL
6	Tank Sludge-Iron Sludge	3.1/I	100	NIL
	Cargo /Tank Residue , washing Water and sludge containing oil	3.1/I	100	NIL
7	Cargo Tank Residue containing Chemicals	3.2/I	100	NIL

8	Ballast / Bilge Water containing oil from ship	3.4/I	100	NIL

Summary of disposal of hazardous waste for the reporting period i.e., from April 2020 to September 2020 is appended as below for ready reference.

SN	Title – Hazardous Waste	Category	Consented quantity MT/ Year	Total disposal during Apr 2020 to September 2020
1	Used or Spent Oil	5.1/I	7.48	NIL
2	ETP Sludge	35.3/I	6.0	NIL
3	Discarded Containers/Barrels/ Liners	33.1/I	3.0	NIL
4	Used Foam pig of chemical	C-1/II	12.0	NIL
5	Oil Soaked Cotton & Other waste	33.2/I	10.0	NIL
6	Tank Sludge-Iron Sludge	3.1/I	100	NIL
	Cargo /Tank Residue , washing Water and sludge containing oil	3.1/I	100	NIL
7	Cargo Tank Residue containing Chemicals	3.2/I	100	NIL
8	Ballast / Bilge Water containing oil from ship	3.4/I	100	NIL

Copy of online generated manifest for the disposal of hazardous waste in March 2020 is attached as **Annexure 39** in the main report.

HAZARDOUS WASTE STORAGE FACILITY –

Centralized hazardous waste storage facility with impervious bottom and leachate collection arrangement has been provided within the Terminal premises far away from CRZ area.

Channel –
Leachate collection

Pipeline to ETP –
Leachate collection

Pig Storage

COMPLIED.

8 The project management shall strictly comply with the provisions made in Manufacture, Storage & Impact of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals. Necessary approvals from the government authorities shall be obtained before commissioning of the project, if applicable.

The provisions made in Manufacture Storage and Import of Hazardous Chemicals Rules, 1989 as amended in 2000, for handling of hazardous chemicals are complied with like –

MSIHC Rules - Compliance of Applicable Rules		
SN	**Conditions**	**Compliance**
1	An occupier to identify the major accident hazards and taken adequate steps to prevent such major accidents and to limit their consequences to persons and the environment. Provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety.	• Major Accident Hazards has been identified and incorporated in On Site Emergency Action Plan. The plan was last reviewed in January 2020. ▪ Following controls have been implemented as a part of prevention of Major Accidents – → Storage tankages are confirming to API/ASTM codes and practices → Process Hazard Analysis and Risk Assessment has been carried out for bulk storage of Hazardous Chemicals and recommendations implemented. → Standard Operating Procedures are in place

					for handling of Hazardous Chemicals → Standard Maintenance Practices are in place for ensuring integrity of installations etc. → Training and Awareness on HSE-F topics is one of the ongoing activity.
			2	An occupier shall not undertake any industrial activity unless he has been granted an approval for undertaking such an activity and has submitted] a written report to the concerned authority containing the particulars specified in Schedule 7	Noted and being complied with. Latest approval obtained from the office of Petroleum Explosives and Safety Organization, Nagpur as well as from the office of Directorate of Industrial Safety and Health, Ahmedabad for laying of Butane/Propane/LPG/Propylene pipeline and chilling line etc. Copy of an approval is attached as **Annexure 41 A** in the main report.
			3	An occupier shall prepare a safety report on that industrial activity and send a copy of that report to the concerned authority. The occupier shall within three years of the date of the last safety report, make a further report and shall end a copy of the report to the concerned authority.	Last Safety Report was prepared by M/s. Pro Safe Consultants, Surat for industrial activity carried out at GCPTCL i.e. receipt, storage and transfer/dispatch of Hazardous Chemicals. As a part of integration of relevant information for the recent changes/ modification, Work Order had been awarded to M/s. ECO Safe Consultant, Ahmedabad.
			4	An occupier shall carry out an independent safety audit of the respective industrial activities with the help of an expert, not associated with such industrial activities and forward a copy of the auditor's report along with his	Last Statutory Safety Audit was carried out by an external agency in the year 2018. As per statutory requirement, it is due in year 2020. Work Order had been awarded to M/s. Trivedi Associate to conduct statutory Safety Audit of GCPTCL industrial activities with reference to IS 14489. Copy of Safety Audit Report is attached as **Annexure 41 C** in the main report.

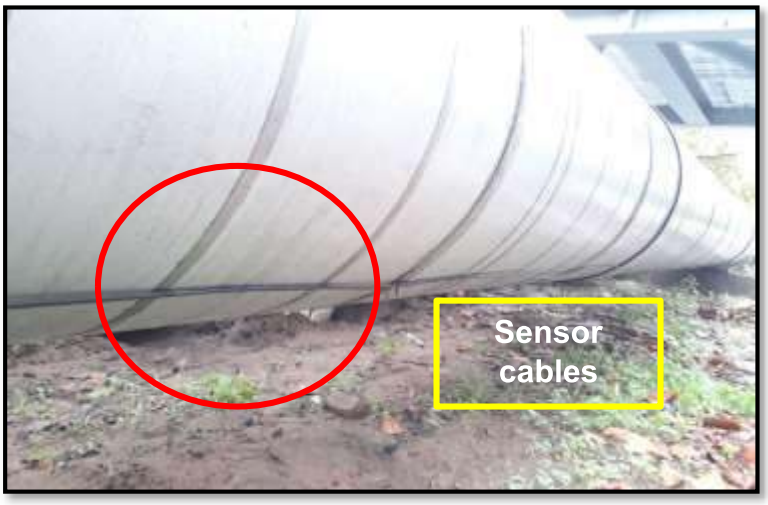
			comments to the concerned Authority	
		5	An occupier shall prepare and keep up-to-date an on-site emergency plan containing details how major accidents will be dealt with on the site.	On Site Emergency Action Plan was prepared and submitted to the office of Asst. Directorate of Industrial Health and Safety (DISH), Bharuch as requested. The plan was last reviewed and modified in January 2020.
		6	The occupier shall ensure that a mock drill of the on-site emergency plan is conducted every six months.	Noted and being complied with. Latest Mock Drill report dated 30.06.2020 is attached as **Annexure 41 B** in the main report.
		7	OFF-SITE EMERGENCY PLAN - the occupier shall provide the concerned authority with such information relating to the industrial activity under his control.	Copy of an On Site Emergency Action Plan was submitted to the office of Asst. Directorate of Industrial Health and Safety (DISH)on 13.08.2020
		8	The occupier shall take appropriate steps to inform persons outside the site either directly or through District Emergency Authority who are likely to be in an area which may be affected by a major accident about (a) the nature of the major accident hazard; and (b) the safety measures and the "Do's' and 'Don'ts" which should be adopted in the event of a major accident.	Community awareness program under title “Jan Jagruti Abhiyan” is conducted at least once in a year or on need basis for the people/community staying in close vicinity to the organization with special attention to HSE risks and its consequences in case disaster including industrial disaster. In the year 2018 community awareness programs has been conducted in the month of May and June for Navinagri and Lakhigam, sample photograph and further detail is provided in our reply stated in point no. 71.
		COMPLIED.		

9	All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act & Rules.	It is ensured that transportation of hazardous chemical is being done in accordance with the Central Motor Vehicle Act and Rules. For the purpose, following practice are in place – Visual inspection of the vehicle engaged for transporting hazardous chemicals is being conducted, followed by verifying the availability of documents like TREM card, license for transporting particular hazardous material issued by Petroleum Explosive and Safety Organization, driver's certified training for transporting hazardous materials etc. Copy of duly completed vehicle inspection checklist, TREM card and drivers training certificate is attached as **Annexure 61, 62 and 63** respectively in the main report. **COMPLIED.**
10	Hazardous materials storage shall be at an isolated designated location, bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals.	Hazardous material storage facility has been provided within the Terminal premises and is located away from routine operational and CRZ area.  Bulk storage of hazardous material is in line with the requirements stipulated in OISD 117/244 etc. 

		COMPLIED.
11	All transportation routes within the factory premise shall have paved roads to minimize splashes and spillages.	All transportation routes including tanker parking area within the terminal area are paved. Sample photographs are appended below for ready reference.   **COMPLIED.**
A.4	**SAFETY**	
12	Mock Drills shall be conducted at regular intervals as per the statutory requirements and their record shall be maintained.	Mock drills are carried out at periodic interval and records are maintained. A report of mock drill dated 30.06.2020 is attached as **Annexure 41** B in the main report**.**   **COMPLIED.**
13	Necessary dyke wall along with spill collection sump shall be provided around the storage tanks to arrest the spillages/leakages.	Bulk storage of hazardous material is in line with the requirements stipulated in OISD 117/244 etc. Bulk storage of hazardous chemical is licensed premises. Bund wall with its drain sump and isolation valve is provided. The capacity of the bund wall is 110% of the largest storage tank located within that particular bund wall.

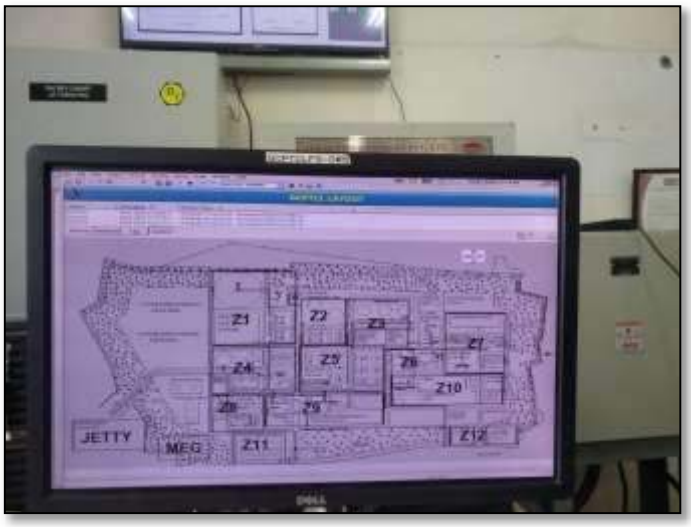
		 **COMPLIED.**
14	All the storage tanks in the premises shall be provided with sprinkler as per OISD norms.	All the storage tanks installed for bulk storage of hazardous chemical are provided with sprinkler system in accordance with OISD norms like OISD 117/244 etc.  **COMPLIED.**
15	Fire protection system shall be upgraded for the additional storage tanks installation and shall confirm to OISD standards.	Fire protection system provided across the Terminal including Jetty is in accordance with OISD-117/156. For major modification/expansion of the Terminal including Jetty, we shall consider adequacy check of the existing fire protection system. In the year 2016, as a part of modification of existing jetty against EC & CRZ Clearance Jan 2016, we had completed adequacy check of our existing fire protection system and improvement opportunities as suggested in the report are implemented like

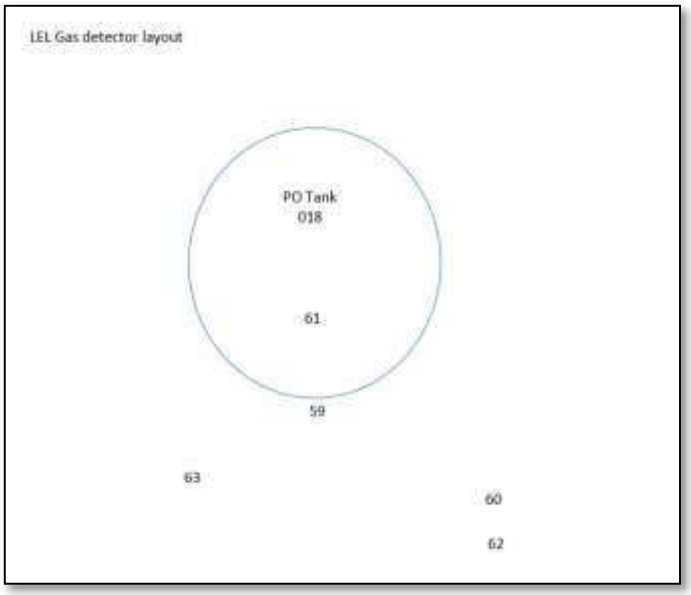
		replacement of existing 2400 LPM capacity fire monitor with that of 7500 LPM capacity. In addition to that, during the current FY, we had awarded a contract to M/s. L & T Hydrocarbon Engineering for carrying out adequacy check of existing fire protection facility including fire and gas detection system. **COMPLIED.**
16	Necessary flameproof fittings shall be provided in the storage facility.	Provision of flameproof electrical fittings across the Terminal and Jetty area in particular where hazardous chemicals are being stored and/or handled is in accordance with the hazardous area classification contour and confirming to relevant IS as well as PESO (Petroleum Explosives and Safety Organization, Nagpur) approval.    **COMPLIED.**
17	Proper ventilation shall be provided in the whole premises.	Adequate ventilation has been provided – control room and sitting facilities provided with Air Condition System the other facility sitting are in line with the approval accorded by DISH, Ahmedabad i.e. having provision of windows and doors to ensure adequate ventilation. **COMPLIED.**
18	All venting equipment shall have vapour recovery	As a part of LDAR (Leak Detection and Repair), about 103 Hydrocarbon detectors (i.e. LEL detector) are installed at

	system. All the pumps and other equipment where there is a likelihood of leakages shall be provided with Leak Detector and Repair (LDAR) system. Provisions for immediate isolation of such equipment also be made. The detector sensitivity shall be in ppm levels.	prominent locations across the Terminal considered as potential leak prone like tank farm, pumping station – manifold area, gantry, material transfer pipelines etc. The audio – visual detection of LDAR system is integrated at main control room as well as fire station. The system is operated in auto and contribute to early detection of leakage of products, if any taking place and subsequent initiating corrective actions. Practice of carrying out calibration of the detectors has been established and records are maintained.   <u>Further explanation</u> – • Fire and Gas detection network (LDAR System) has been established across the Terminal and Jetty area. • 103 LEL gas detectors have been installed across the Terminal and Jetty area which is divided into 12 different zones for ease of identification of exact location and quick response. • The very basic intent of the network is to detect a gas leakage, if any in the field area and generate signal so that gas detectors can identify the leakage and initiate an alarm sequence on the panel located at control room as well as at

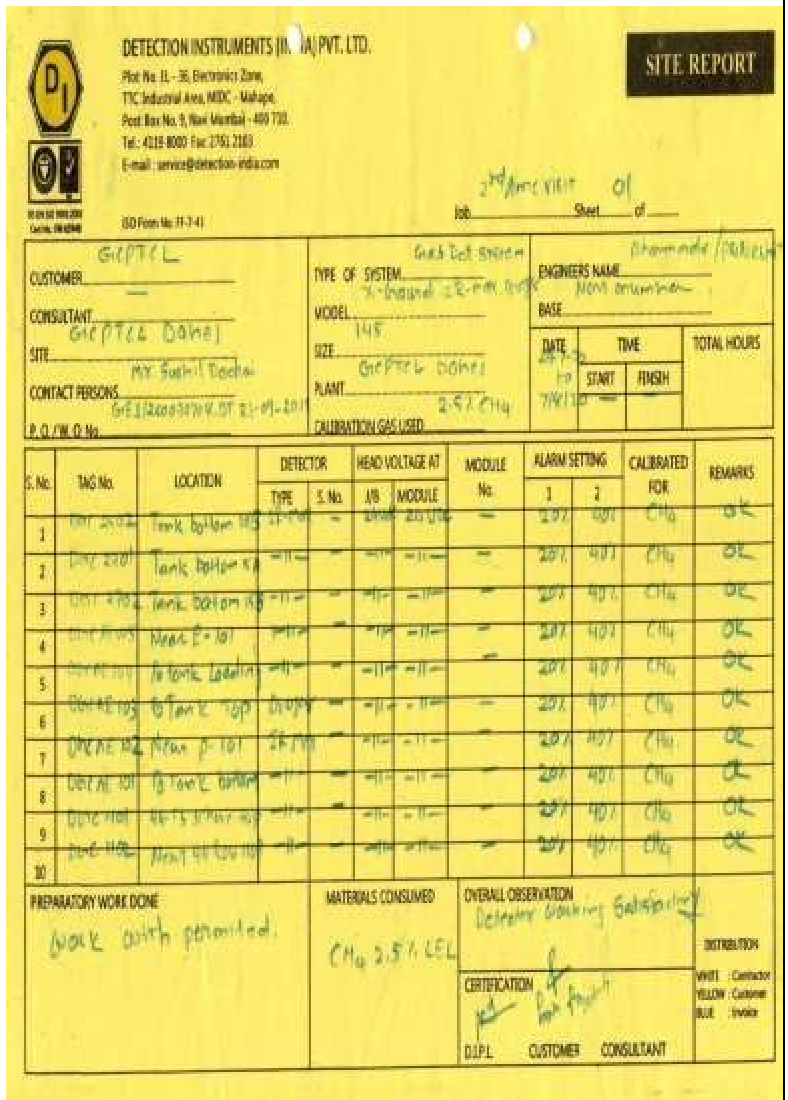
Fire Station. Alarm communication devices are also installed in the field to generate audible and visible alarm.

- **<u>Installation of the detector</u>** - The location of the detectors are so selected that it can detect gas leak, if any, on faster basis as well as to facilitate its functional testing. Graphical presentation of 12 zone as well as typical lay out of installation of Gas detector for one of the tank farm (PO Tank) is appended as below for ready reference.





- **<u>Functional testing of detectors</u>**- The detectors are being tested at an interval of 06 months for checking of its healthiness by third party M/s Detection instrument, Mumbai and the records are being maintained. Typical record of functional testing of the detector is appended as below for ready reference.

<table>
<tr>
<td></td>
<td></td>
<td> 
DETECTION INSTRUMENTS (INDIA) PVT. LTD.
Plot No. EL - 36, Electronics Zone,
TTC Industrial Area, MIDC - Mahape,
Post Box No. 9, Navi Mumbai - 400 710.
Tel.: 4119 8000 Fax: 2761 2183
E-mail : service@detection-india.com
SITE REPORT
ISO Form No. FI-7-4
Job 2nd Amc visit Sheet 01 of
CUSTOMER GCPTCL
CONSULTANT —
SITE GCPTCL Dahej
CONTACT PERSONS Mr. Sushil Dochai
P.O./W.O. No. [illegible] DT 21-01-2011
TYPE OF SYSTEM Gas Det System
MODEL [illegible]
SIZE 145
PLANT GCPTCL Dahej
CALIBRATION GAS USED 2.5% CH4
ENGINEERS NAME [illegible]
BASE Navi Mumbai
DATE [illegible] to 7/4/10   TIME START — FINISH —   TOTAL HOURS
<table>
<tr><th>S. No.</th><th>TAG No.</th><th>LOCATION</th><th>DETECTOR TYPE</th><th>DETECTOR S. No.</th><th>HEAD VOLTAGE AT J/B</th><th>HEAD VOLTAGE AT MODULE</th><th>MODULE No.</th><th>ALARM SETTING 1</th><th>ALARM SETTING 2</th><th>CALIBRATED FOR</th><th>REMARKS</th></tr>
<tr><td>1</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>[illegible]</td><td>—</td><td>[illegible]</td><td>[illegible]</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>2</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>3</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>4</td><td>[illegible]</td><td>Near P-101</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>5</td><td>[illegible]</td><td>Nr tank loading</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>6</td><td>[illegible]</td><td>Nr tank top</td><td>[illegible]</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>7</td><td>[illegible]</td><td>Near P-101</td><td>[illegible]</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>8</td><td>[illegible]</td><td>Nr tank [illegible]</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>9</td><td>[illegible]</td><td>[illegible]</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>10</td><td>[illegible]</td><td>[illegible]</td><td>—II—</td><td>—</td><td>—II—</td><td>—II—</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
</table>
PREPARATORY WORK DONE: Work with permitted.
MATERIALS CONSUMED: CH4 2.5% LEL
OVERALL OBSERVATION: Detector working satisfactory
CERTIFICATION: D.I.P.L. CUSTOMER CONSULTANT
DISTRIBUTION: WHITE : Contractor YELLOW : Customer BLUE : Invoice
COMPLIED.</td>
</tr>
<tr>
<td>19</td>
<td>All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Close handling system for handling shall be provided. Double mechanical seals shall be provided for pumps/agitators for reactors for reduction of fugitive emissions and leakages. Traps shall be installed wherever necessary.</td>
<td>All storage tank containing hazardous chemicals are provided with Low, Low-Low, High and High-High Level Alarm and Trip and Leak Detection and Alarm System and it is in alignment to OISD requirement.

Closed handling systems for handling of chemicals: closed piping network has been provided across the Terminal as well as up to end user of the products like Ethane, Naphtha, and Paraxylene etc.</td>
</tr>
</table>

- Hazardous material transfer pumps are of centrifugal type and are provided with double mechanical seals.

- Some of the products are handled in tankers/trucks - Loading arm (instead flexible hose connection) are provided for transfer of products into tanker.

As a part of LDAR (Leak Detection Alarm and Repair), about 103 Hydrocarbon detectors (i.e. LEL detector) are installed at areas considered as potential leak prone area like tank farm, pumping station – manifold area, gantry, material transfer pipelines etc. including Jetty.

The audio – visual detection of LDAR system is integrated at main control room as well as fire station.

The system is operated in auto and contribute to early detection of leakage of products, if any taking place and subsequent initiating corrective actions.

Practice of carrying out calibration of the detectors has been established and records are maintained.

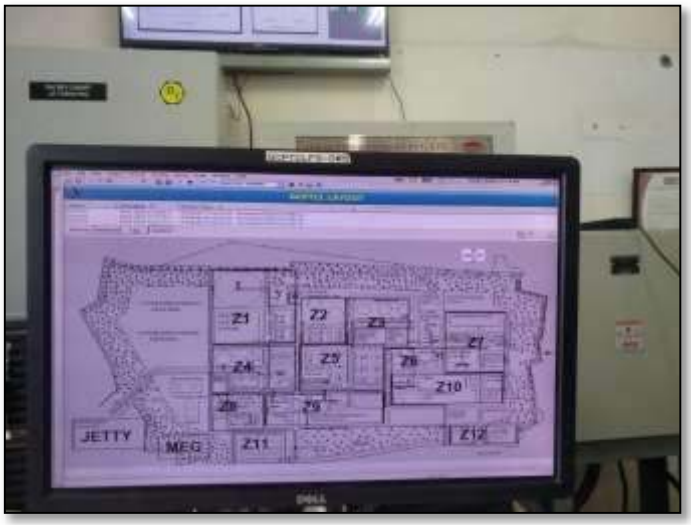
Further explanation –

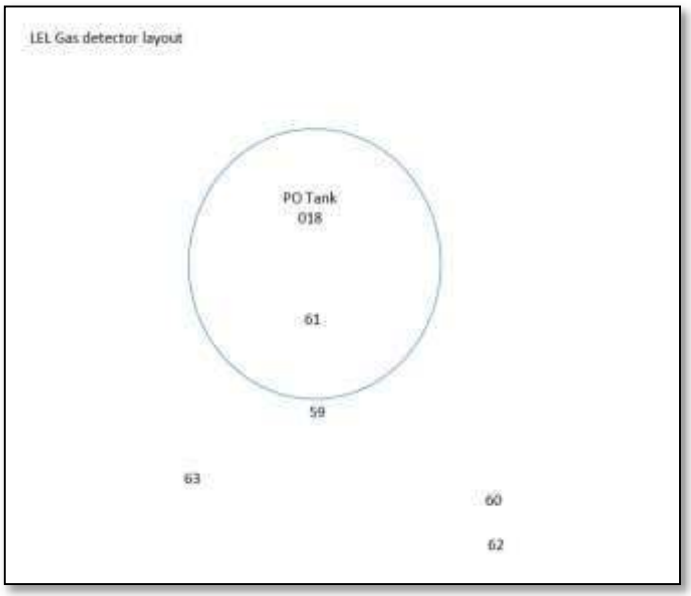
- Fire and Gas detection network (LDAR System) has been established across the Terminal and Jetty area.

- 103 LEL gas detectors have been installed across the Terminal and Jetty area which is divided into 12 different zones for ease of identification of exact location and quick response.

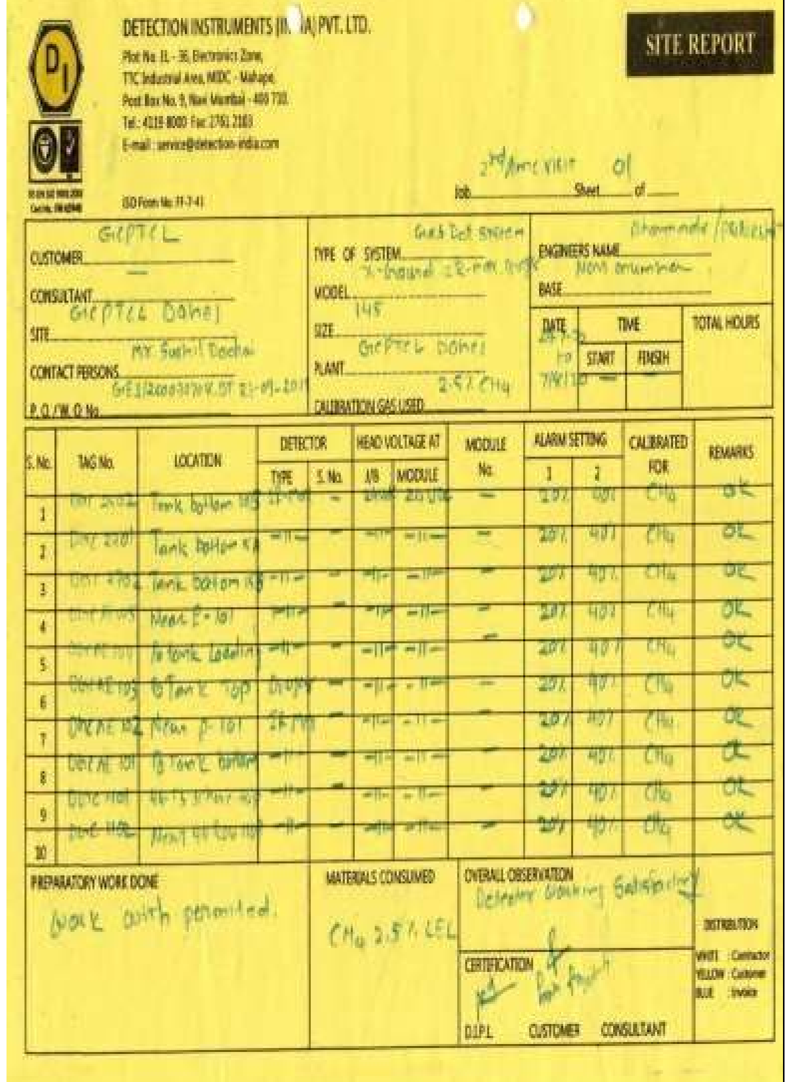
- The very basic intent of the network is to detect a gas leakage, if any in the field area and generate signal so that gas detectors can identify the leakage and initiate an alarm sequence on the panel located at control room as well as at Fire Station. Alarm communication devices are also installed in the field to generate audible and visible alarm.

- **Installation of the detector** - The location of the detectors are so selected that it can detect gas leak, if any, on faster basis as well as to facilitate its functional testing. Graphical presentation of 12 zone as well as typical lay out of installation of Gas detector for one of the tank farm (PO Tank) is appended as below for ready reference.





- **<u>Functional testing of detectors</u>**- The detectors are being tested at an interval of 06 months for checking of its healthiness by third party M/s Detection instrument, Mumbai and the records are being maintained. Typical record of functional testing of the detector is appended as below for ready reference.

<table>
<tr><td></td><td></td><td> 
DETECTION INSTRUMENTS (IN[illegible]A) PVT. LTD.
Plot No. EL - 36, Electronics Zone,
TTC Industrial Area, MIDC - Mahape,
Post Box No. 9, Navi Mumbai - 400 710.
Tel.: 4119 8000 Fax: 2761 2183
E-mail : service@detection-india.com
ISO Form No. 11-7-41

SITE REPORT

Job 2nd Amc visit Sheet 01 of ____

CUSTOMER GIPTCL
CONSULTANT —
SITE GIPTCL Dahej
CONTACT PERSONS Mr. Sushil Dodia
P.O./W.O. No. [illegible] 21-09-2017
TYPE OF SYSTEM Gas Det System
MODEL [illegible]
SIZE 145
PLANT GIPTCL Dahej
CALIBRATION GAS USED 2.5% CH4
ENGINEERS NAME [illegible]
BASE
DATE [illegible] TIME START — FINISH — TOTAL HOURS
<table>
<tr><th>S. No.</th><th>TAG No.</th><th>LOCATION</th><th>DETECTOR TYPE</th><th>DETECTOR S. No.</th><th>HEAD VOLTAGE AT J/B</th><th>HEAD VOLTAGE AT MODULE</th><th>MODULE No.</th><th>ALARM SETTING 1</th><th>ALARM SETTING 2</th><th>CALIBRATED FOR</th><th>REMARKS</th></tr>
<tr><td>1</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>[illegible]</td><td>—</td><td>[illegible]</td><td>[illegible]</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>ok</td></tr>
<tr><td>2</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>3</td><td>[illegible]</td><td>Tank bottom [illegible]</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>4</td><td>[illegible]</td><td>Near E-101</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>5</td><td>[illegible]</td><td>[illegible] Loading</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>6</td><td>[illegible]</td><td>[illegible] Tank top</td><td>[illegible]</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>7</td><td>[illegible]</td><td>Near P-101</td><td>[illegible]</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>8</td><td>[illegible]</td><td>[illegible] Tank bottom</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>9</td><td>[illegible]</td><td>[illegible]</td><td>-II-</td><td></td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
<tr><td>10</td><td>[illegible]</td><td>[illegible]</td><td>-II-</td><td>—</td><td>-II-</td><td>-II-</td><td>—</td><td>20%</td><td>40%</td><td>CH4</td><td>OK</td></tr>
</table>
PREPARATORY WORK DONE: Work with permitted.
MATERIALS CONSUMED: CH4 2.5% LEL
OVERALL OBSERVATION: Detector Working Satisfactory
CERTIFICATION D.I.P.L. CUSTOMER CONSULTANT
DISTRIBUTION WHITE : Contractor YELLOW : Customer BLUE : Invoice

COMPLIED.</td></tr>
<tr><td>20</td><td>During material transfer, spillages shall be avoided and garland drain shall be constructed to avoid mixing of accidental spillages with domestic waste and storm water drain.</td><td>Following specific efforts / best practices / RAGAGEP are in place to ensure elimination/minimize spillage of hazardous chemicals during its storage and handling.

• Handling of products through closed systems – use of piping and loading arms for transfer/handling of products Flange joints in the piping network are of full faced gasket joint and valves (stem) equipped with graphite fitting etc.

• Material transfer pumps are of centrifugal type and are provided with double mechanical seals.

• Close drain system (OWS/PWS) – independent of domestic waste and storm water drainage is provided across the Terminal area including gantry operation facility.</td></tr>
</table>

		All gantry complete flooring is of RCC type with slope that facilitate diversion of accidental spillage, if any to collection pit from where it is further diverted to ETP through OWS/PWS channel (i.e. closed loop) for further treatment and disposal.  **COMPLIED.**
21	Personal protective equipment shall be provided to workers and its usage shall be ensure and supervised.	PPE like ear plugs, masks, safety goggles, helmet etc. are provided and its usage is ensured and supervised. Cryogenic hand gloves and suits are provided to handle cryogenic materials. Safety signage about usage of PPEs are displayed at prominent locations. **COMPLIED.**
22	First aid box and required Antidotes for the chemical used in the unit shall be made readily available in adequate quantity at all the times.	Sufficient number of first aid boxes are readily made available across the Terminal and Jetty. Total 11First Aid boxes provided. Antidote is available for snakebite.  **COMPLIED.**

<table>
<tr>
<td>23</td>
<td>Training to be given to all personal on safety and health aspects of handling chemical products including regular Mock Drills.</td>
<td>Trained First Aider are available at Terminal as well as Jetty.

List of trained First Aider is attached as Annexure 59 in the main report.

Personnel are trained on Chemical Safety and Chemical Safety Guide in local language was provided to the personnel for their ready reference.

Raising awareness on health and safety aspects, amongst the company employees and contractor workers, is one of the ongoing efforts at GCPTCL.

Mock drills are carried out at periodic interval. A report of mock drill dated 30.06.2020 is attached as Annexure 41 B in the main report.

COMPLIED.</td>
</tr>
<tr>
<td>24</td>
<td>Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per Factories Act and Rules. Pre-employment and periodical medical examination for all workers shall be undertaken as per statutory requirement.</td>
<td>Occupational Health Surveillance of the workers (both contractors as well as company employees) is one of the on-going activities at GCPTCL and is carried out at a frequency prescribed in the Factories Act and Gujarat Factory Rules and the records are being maintained in OHC.

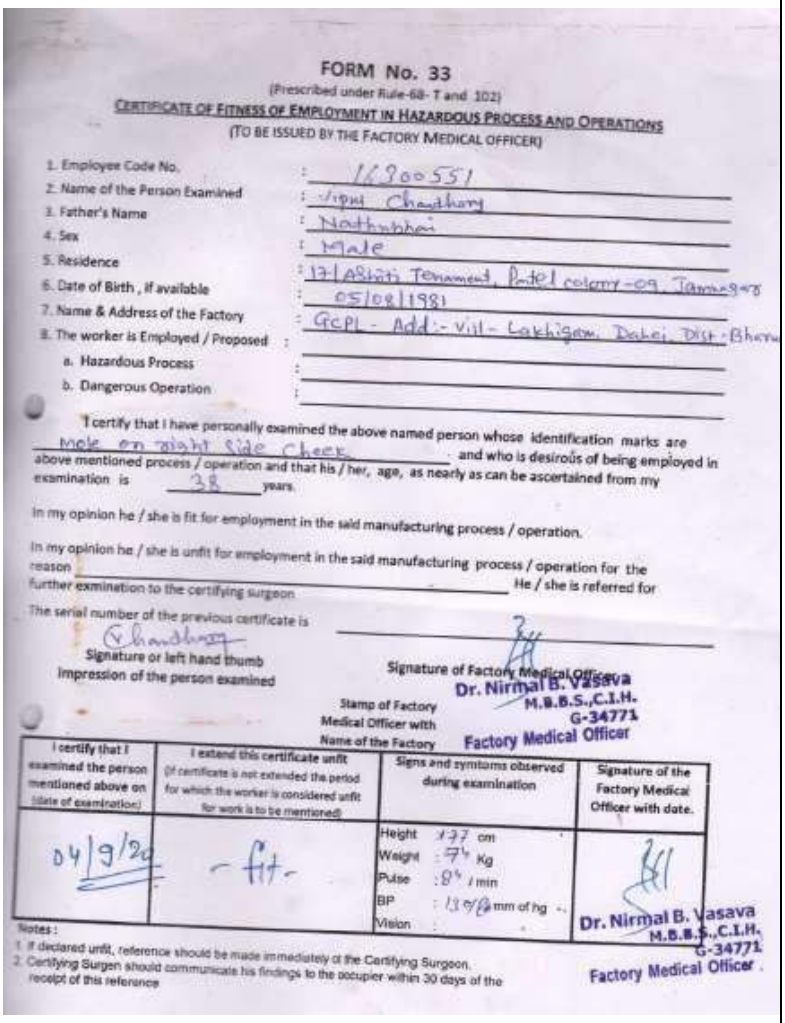
Occupational Health Surveillance is carried out –
→ At the time of joining formality (i.e. Pre-Employment Fitness Examination)
→ At every six months for all workers engaged in hazardous process (i.e. Periodic Fitness Examination)

Details of checks conducted at the time of Fitness Examination is appended as below for ready reference-

<table>
<tr><th>Fitness Examination Parameter</th><th>Pre-Employment Fitness Examination</th><th>Periodic Fitness Examination</th></tr>
<tr><td>Physician Check-up</td><td>√</td><td>√</td></tr>
<tr><td>Eye – Check-up</td><td>√</td><td>√</td></tr>
<tr><td>ENT- Check-up</td><td>√</td><td>√</td></tr>
<tr><td>X-ray</td><td>√</td><td>√</td></tr>
<tr><td>ECG</td><td>√</td><td>√</td></tr>
<tr><td>Urine Routine</td><td>√</td><td>√</td></tr>
<tr><td>CBC+ESR</td><td>√</td><td>√</td></tr>
<tr><td>Blood Group</td><td>√</td><td>√</td></tr>
<tr><td>Random Blood Sugar</td><td>√</td><td>√</td></tr>
</table>

Typical sample lab analysis reports of Pre-Employment as well as Periodical Fitness Examination for company employee and contractors are attached as Annexure 70 and 71A and 71 B respectively in the main report.

Records of such fitness examination are maintained in a standard template as prescribed in the Factories Act and the Gujarat</td>
</tr>
</table>

		Factories Rules i.e. in Form No 33 (Pre-Employment) Form No 32 (Periodical). Typical example of one such record  **COMPLIED.**
25	The project management shall prepare a detailed Disaster Management Plan (DMP) for the project as per the guidelines from Directorate of Industrial Safety and Health.	Disaster Management Plan (DMP) / On-Site Emergency Action Plan is in place. Bharuch district DMP is prepared by the district administration. Copy of relevant pages are attached as **Annexure 64** in the main report. **COMPLIED.**
26	On Site Emergency Control plan and Off Site Emergency Plan shall be updated and its'	Site level On-Site Emergency Action Plan is prepared and was last reviewed in January 2020. Copy of plan – Index Page is attached as **Annexure 65** in the main report.

<table>
<tr><td></td><td>recommendations shall be implemented.</td><td>Copy of the plan had been submitted to the office of Directorate of Industrial Health and Safety (DISH) vide our letter. 13.08 2020

COMPLIED.</td></tr>
<tr><td>27</td><td>Design of the storage tanks shall be done in accordance with the applicable OISD, IS, API, ASME standards.</td><td>All the storage tanks and related installation including fire protection facility have been constructed/provided as per design code API 650 and/or OISD norms like OISD 117/156/244.

COMPLIED.</td></tr>
<tr><td>28.</td><td>Necessary permissions from the Chief Controller of Explosive-Nagpur, State Department of Safety and Health, and other relevant Government agencies shall be taken prior to the commencement of the project.</td><td>GCPTCL had obtained requisite permissions from the relevant government departments / bodies / authorities like GPCB (CTE and CCA), PESO (Petroleum Explosives and Safety Organisations), DISH (Director of Industrial Safety and Health) etc.

COMPLIED.</td></tr>
<tr><td>29.</td><td>Ambient air quality status with respect to VOC in the area shall be monitored in consultation with the GPCB and its' record shall be submitted to SEIAA.</td><td><u>Ambient Air Quality Monitoring (VOC) –</u>
Ambient air quality monitoring for the presence of VOC is carried out through schedule 1 Environment Auditor – M/s. MANTRA (Man Made Textile and Research Association, Gujarat). Refer Annexure 30 in the main report.

Summary of fugitive emission monitoring for April 2020 to September 2020 is appended as below for ready reference.

<table>
<tr><th>Location</th><th>VOC (mg/m3)</th></tr>
<tr><td>Near Atmospheric Gantry</td><td>1.16</td></tr>
<tr><td>Near Pressurize Gantry</td><td>1.21</td></tr>
<tr><td>Near BOG Area</td><td>1.26</td></tr>
<tr><td>Near LPG Tank Farm</td><td>1.32</td></tr>
<tr><td>Near Propane Tank Farm</td><td>1.25</td></tr>
<tr><td>Near Py Gas Tank Farm</td><td>1.08</td></tr>
<tr><td>Near Methanol Tank Farm</td><td>1.19</td></tr>
<tr><td>Near Px Tank Farm</td><td>1.02</td></tr>
<tr><td>Near Hydrocarbon Tank (Naphtha)</td><td>1.48</td></tr>
<tr><td>Near Acetic Acid Tank Farm</td><td>1.42</td></tr>
</table>

No limit prescribed for VOC.

Analytical report of one such fugitive emission monitoring is attached as Annexure 31 in the main report.

<u>Ambient Air Quality Monitoring</u> –</td></tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>Ambient Air quality monitoring for the general parameters as prescribed in the CC & A is carried out through MoEF&CC (recognition valid till 11.03,2021) and NABL accredited laboratory (Certificate No. TC-7099, valid till 26.03.2022) – M/s. Kadam Environmental Consultants, Gujarat. Refer Annexure 33 in the main report.

Summary of Ambient Air Quality Monitoring for the reporting period i.e., (April.2020 to September 2020) is appended as below for ready reference-

Location – Near Store

<table>
<tr><th>Parameter – AAQM</th><th>GPCB consented limit - µg/m3</th><th>Average µg/m3</th><th>Minimum µg/m3</th><th>Maximum µg/m3</th></tr>
<tr><td>PM10</td><td>100</td><td>64.4</td><td>24.00</td><td>94.00</td></tr>
<tr><td>PM2.5</td><td>60</td><td>19.40</td><td>16.00</td><td>25.00</td></tr>
<tr><td>SO2</td><td>80</td><td>7.45</td><td>5.84</td><td>8.47</td></tr>
<tr><td>NOx</td><td>80</td><td>13.81</td><td>10.07</td><td>18.72</td></tr>
<tr><td>HCL</td><td>200</td><td>5.19</td><td>ND</td><td>16.54</td></tr>
<tr><td>Cl2</td><td>100</td><td>3.05</td><td>ND</td><td>5.91</td></tr>
<tr><td>CO</td><td>5000</td><td>461</td><td>ND</td><td>1340</td></tr>
<tr><td>HC</td><td>160</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>NH3</td><td>400</td><td>4.16</td><td>ND</td><td>11.47</td></tr>
<tr><td>H2S</td><td>500</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>CS2</td><td>2000</td><td>ND</td><td>ND</td><td>ND</td></tr>
<tr><td>HF</td><td>60</td><td>0.09</td><td>ND</td><td>0.23</td></tr>
</table>

Note – reference method of analysis is indicated in the report and ND = Not Detected.

All the parameters are well within the prescribed limit.

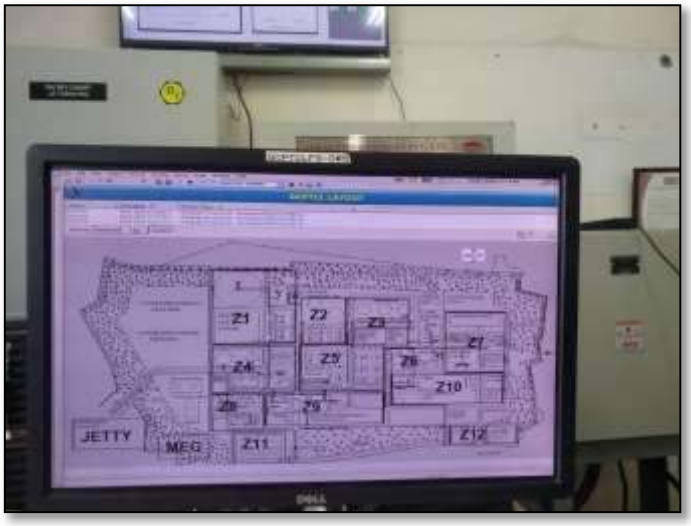
Report of Ambient Air Quality Monitoring for the reporting period is attached as Annexure 34 in the main report.

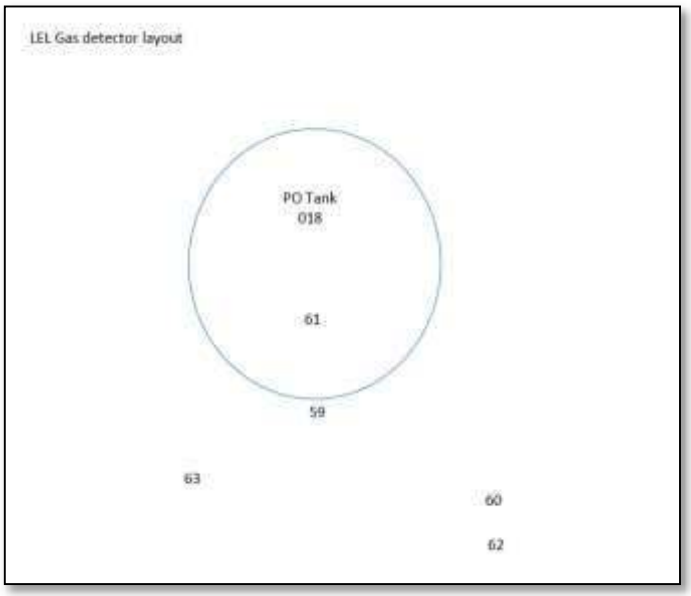
COMPLIED.</td>
</tr>
<tr>
<td>30.</td>
<td>First Aid Box, Fire extinguishers, foams, sand etc. shall be made available in adequate quantity at all the times. Necessary tie up with the nearby fire stations and other emergency services shall be made to ensure that the required aid reaches within the shortest</td>
<td>

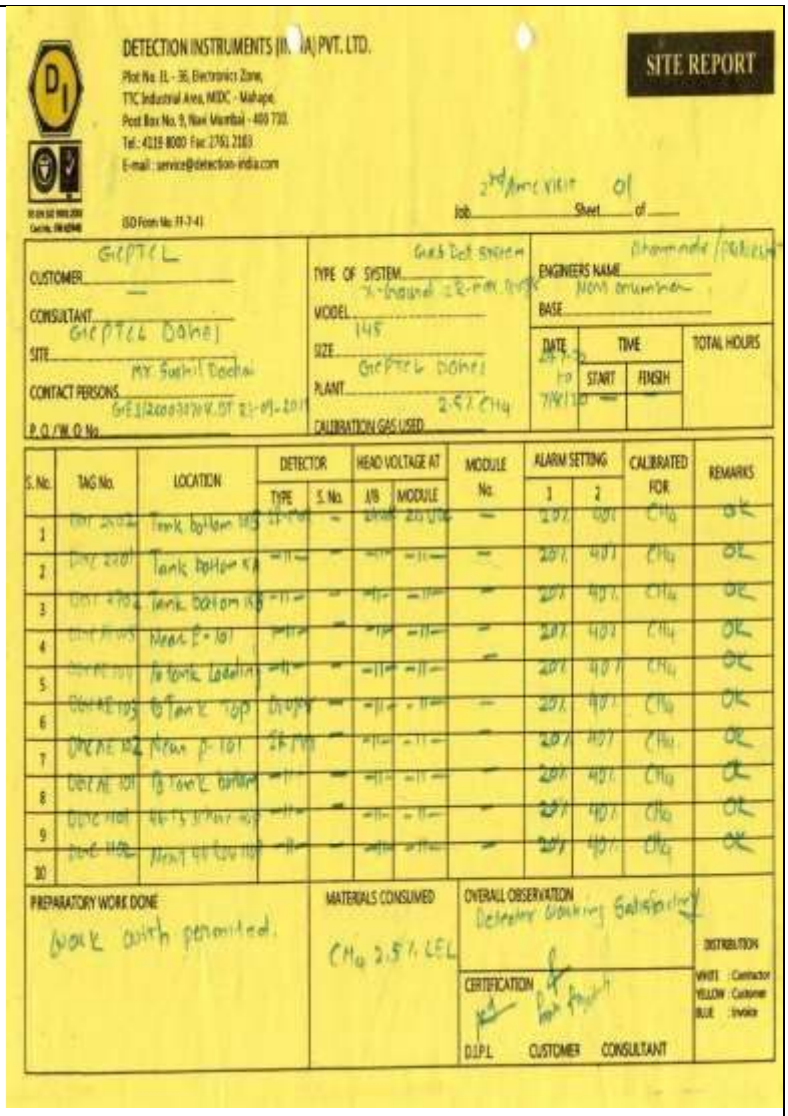
Sufficient number of fire extinguishers & adequate quantities of foam, sand and first aid box are readily available at site. The same will be reviewed and made available for upcoming facilities.

Total 11First Aid boxes provided across the Terminal and Jetty area.</td>
</tr>
</table>

	possible time in case of any adverse conditions.	 **COMPLIED.**
31.	Remote firefighting facility and gas detection system facility shall be provided.	Firefighting facility provided at GCPTCL is confirming to OISD 117. The facility is maintained ready to operate condition thru' Inspection and Functional Performance Testing schedule. At Jetty, remote operated HVLR (Monitor) are provided and are confirming to OISD 156 standard. Automated rim seal fire protection facility is provided (in progress) for Class 'A' material storage tanks – starting with Naphtha tank.  As a part of LDAR (Leak Detection Alarm and Repair), about 103 Hydrocarbon detectors (i.e. LEL detector) are installed at prominent locations across the Terminal considered as potential leak prone like tank farm, pumping station – manifold area, gantry, material transfer pipelines etc. The audio – visual detection of LDAR system as well as activation of MCP (Manual Call Point) is integrated at main control room as well as fire station. The system is operated in auto and contribute to early detection of leakage of products, if any taking place and subsequent initiating corrective actions.

		Practice of carrying out calibration of the detectors has been established and records are maintained. Further explanation – • Fire and Gas detection network (LDAR System) has been established across the Terminal and Jetty area. • 103 LEL gas detectors have been installed across the Terminal and Jetty area which is divided into 12 different zones for ease of identification of exact location and quick response. • The very basic intent of the network is to detect a gas leakage, if any in the field area and generate signal so that gas detectors can identify the leakage and initiate an alarm sequence on the panel located at control room as well as at Fire Station. Alarm communication devices are also installed in the field to generate audible and visible alarm. • **Installation of the detector** - The location of the detectors are so selected that it can detect gas leak, if any, on faster basis as well as to facilitate its functional testing. Graphical presentation of 12 zone as well as typical lay out of installation of Gas detector for one of the tank farm (PO Tank) is appended as below for ready reference. 

		 • **<u>Functional testing of detectors</u>**- The detectors are being tested at an interval of 06 months for checking of its healthiness by third party M/s Detection instrument, Mumbai and the records are being maintained. Typical record of functional testing of the detector is appended as below for ready reference.”

		 DETECTION INSTRUMENTS (I... A) PVT. LTD. Plot No. 11 - 36, Electronics Zone, TTC Industrial Area, MIDC - Mahape, Post Box No. 9, Navi Mumbai - 400 710. Tel.: 4139 8000 Fax: 2761 2163 E-mail : service@detection-india.com SITE REPORT ISO Form No. 11-7-41 Job ... Sheet ... of ... CUSTOMER: GICPTCL CONSULTANT: GICPTCL (DAHEJ) SITE CONTACT PERSONS: Mr. Sushil Dadhe P. O. / W. O. No. TYPE OF SYSTEM: Gas Det. System MODEL: 148 SIZE: GICPTCL DAHEJ PLANT CALIBRATION GAS USED: 2.5% CH4 ENGINEERS NAME: Dharmendra BASE: Navi Mumbai DATE / TIME (START / FINISH) / TOTAL HOURS S. No. / TAG No. / LOCATION / DETECTOR (TYPE, S. No.) / HEAD VOLTAGE AT (A/B, MODULE) / MODULE No. / ALARM SETTING (1, 2) / CALIBRATED FOR / REMARKS PREPARATORY WORK DONE: Work with permited. MATERIALS CONSUMED: CH4 2.5% LEL OVERALL OBSERVATION: Detector Working Satisfactory CERTIFICATION D.I.P.L. CUSTOMER CONSULTANT DISTRIBUTION WHITE : Contractor YELLOW : Customer BLUE : Invoice **COMPLIED.**
A.5	**Noise**	
32.	The overall noise level in and around the plant area shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures vibration dampers etc. on all sources of noise generation. The ambient noise levels shell confirm to the standards prescribed under the Environment (protection) Act and Rules. Workplace noise levels for	The major activity is storage and handling of chemicals and as such no manufacturing activities are carried out, there is less likelihood of high noise generating machinery/equipment. However, noise suppression devices where applicable like - Pumps are provided with suitable noise suppression measures e.g. enclosure, muffler on exhaust etc. Practice is in place for monitoring of Noise level, at periodic level, within the complex at workplace as well as at the extreme perimeter through MoEF&CC and NABL recognized third party as well as by internal resource and records are maintained.

<table>
<tr><td></td><td>workers shall be as per the Factories Act and Rules.</td><td>From the above details, it is confirmed that the overall noise level is within the limit prescribed in EPA, 1986.

Summary of noise level monitoring for the period April 2020. to September 2020) is presented as below for ready reference.

<table>
<tr><th>Area/Location</th><th>Average</th><th>Minimum</th><th>Maximum</th></tr>
<tr><td colspan="4">Ambient Air Noise Monitoring – DAY/NIGHT in dB(A)</td></tr>
<tr><td>Nearby Store</td><td>56/52</td><td>47/46</td><td>66/60</td></tr>
<tr><td>Main Gate</td><td>61/55</td><td>54/52</td><td>70/62</td></tr>
<tr><td>Material Gate</td><td>60/55</td><td>56/51</td><td>68/64</td></tr>
<tr><td>Landfall Point</td><td>57/55</td><td>51/50</td><td>61/58</td></tr>
<tr><td colspan="4">At Workplace Noise Monitoring – in dB(A)</td></tr>
<tr><td>Jetty Service Platform</td><td>58/52</td><td>54/48</td><td>66/59</td></tr>
<tr><td>BOG Compressor House</td><td>64/55</td><td>55/49</td><td>70/68</td></tr>
<tr><td>Mechanical Workshop</td><td>57/52</td><td>51/50</td><td>62/58</td></tr>
<tr><td>Gantry Area</td><td>60/50</td><td>57/42</td><td>63/60</td></tr>
</table>

From the above details, it is confirmed that the overall noise level is within the limit prescribed in EPA, 1986.

COMPLIED.</td></tr>
<tr><td>A.6</td><td colspan="2">CLEANER PRODUCTION AND WASTE MINIMIZATION</td></tr>
<tr><td>33.</td><td>The unit shall undertake following waste minimization measures</td><td></td></tr>
<tr><td></td><td>Use of automated and close filling to minimize spillages. Venting equipment through vapour recovery system.</td><td>Implemented automated and close filling operation including venting, if any through vapour recovery system for operations like loading of chemicals into tanker at pressurized gantry.

At the gantry, installed set stop valve for product transfer operation. The valve automatically closed once the controller read the limit feed by the operator to avoid overfill of product from the tanker.

COMPLIED.</td></tr>
</table>

A.7	GREENBELT AND OTHER PLANTATION	
34.	The unit shall develop greenbelt within premises as per the CPCB guidelines	The terminal has developed and maintained green belt as mentioned below; • Greenbelt width of 100 meters in the periphery of the company having density of ~ 1000 trees/Acre • Total green belt area : 35 Hectors • Total no. of trees : 87500 Green belt has been developed using native plant species (Azadiractaindica, Peltophorumindica, Kejurina, Bahomiapurpuria, ficusreligiosa , Ficusbenghalensis, TerminaliaArjuna etc.) of plants and is being maintained. Water sprinkling and drip irrigation system are being used for the green belt development / horticulture purpose.     Plantation activities along the road sides and in village through discussion with gram panchayat and GIDC are practiced. 

<table>
<tr><td></td><td></td><td>COMPLIED.</td></tr>
<tr><td>B)</td><td>GENERAL CONDITIONS</td><td></td></tr>
<tr><td>35</td><td>The applicant shall get Volatile Organic Compound monitored within their premises at least three times in a year by schedule -I auditor.</td><td>Volatile Organic Compound monitoring is carried out through schedule 1 Environment Auditor – M/s. MANTRA (Man Made Textile and Research Association, Gujarat) thrice in a year.

Summary of VOC monitoring for April 2020 to September 2020 is appended as below for ready reference.

<table>
<tr><th>Location</th><th>VOC mg/m3</th></tr>
<tr><td>Near Atmospheric Gantry</td><td>1.16</td></tr>
<tr><td>Near Pressurize Gantry</td><td>1.21</td></tr>
<tr><td>Near BOG Area</td><td>1.26</td></tr>
<tr><td>Near LPG Tank Farm</td><td>1.32</td></tr>
<tr><td>Near Propane Tank Farm</td><td>1.25</td></tr>
<tr><td>Near Py Gas Tank Farm</td><td>1.08</td></tr>
<tr><td>Near Methanol Tank Farm</td><td>1.19</td></tr>
<tr><td>Near Px Tank Farm</td><td>1.02</td></tr>
<tr><td>Near Hydrocarbon Tank (Naphtha)</td><td>1.48</td></tr>
<tr><td>Near Acetic Acid Tank Farm</td><td>1.42</td></tr>
</table>

No limit prescribed for VOC.

Analytical report of one VOC monitoring is attached as Annexure 31 in the main report.

COMPLIED.</td></tr>
<tr><td>36</td><td>The provisions of the CRZ Notification, 1991 as amended from time to time shall be strictly complied with and if necessary the prior permission/clearance under the CRZ Notification shall also be obtained.</td><td>GCPTCL adheres to the key/major provisions of the CRZ Notification, 2011 issued by the Ministry of Environment, Forest and Climate Change, GOI.

<u>KEY PROVISION AND ITS COMPLIANCE</u>

<table>
<tr><td>S N</td><td>Reference/ Point No. of CRZ Notification 2011</td><td>Applicable provision</td><td>Compliance</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>01</td><td>03</td><td>Prohibited activities within CRZ - setting up of new industries and expansion of existing industries except – those directly related to water front or directly needing foreshore facilities.</td><td>This provision is applicable for establishment of Jetty and/or its modification/expansion.</td></tr>
<tr><td>02</td><td>04</td><td>Regulation of permissible activities in CRZ area - Clearance shall be given for any activity within the CRZ only if requires waterfront and foreshore facility.</td><td>GCPTCL for its jetty expansion project in 2016 applied for CRZ clearance and obtained EC & CRZ clearance granted by SEIAA (State Level Environment Impact Assessment Authority, Gujarat) vide letter no. SEIAA/GUJ/EC/6(b) & 7(e)/28/2016 dated 27.01.2016 and CRZ notification 2011.</td></tr>
<tr><td>03</td><td>4.2</td><td>Procedure for clearance of permissible activities should be as prescribed in the notification.</td><td>Noted and had been followed.</td></tr>
<tr><td>04</td><td>05</td><td>Preparation of Coastal Zone Management Plan.</td><td>Not Applicable. State Govt. prepares the State Level CZMP.</td></tr>
</table>
COMPLIED.
</td></tr>
<tr><td>37</td><td>The project proponent shall adopt best industry standards for environment, occupational health and safety.</td><td>GCPTCL is certified for Integrated Management Systems (IMS) i.e. Environmental Management Systems (ISO 14001), OSHAS 18001 and Quality Management Systems (ISO 9001) and demonstrate adoption of best industry practices as a part of demonstrating continual improvement on HSE and Fire Protection Measures.</td></tr>
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COMPLIED.</td>
</tr>
<tr>
<td>38</td>
<td>In the event of failure of any pollution control system adopted by the unit, the facility shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.</td>
<td>Noted and being complied.</td>
</tr>
<tr>
<td>39</td>
<td>The unit shall undertake eco-developmental measures including community welfare program most useful in the project area for the overall improvement and environment.</td>
<td>The following socio – economic upliftment activities have been taken up in the Lakhigam village in consultation with TDO/DDO/District Collector.
<table>
<tr><th>SN</th><th>Facilities</th><th>Evidence – Refer</th><th>Cost incurred</th></tr>
<tr><td>1</td><td>Offering employment from nearby</td><td>-</td><td>+80% employment in Non-Supervisory level is from nearby</td></tr>
</table>
</td>
</tr>
</table>

	community/population.		community/population. This is a kind of an ongoing enablement.

During the last two years GCPTCL had facilitated Lakhigam by providing following specific amenities/facilities but not limited to, under the provision of CSR as requested by the local people–

SN	Facilities	Evidence – You may please refer	Cost incurred
1	Assembly Hall at Lakhigam	• **Annexure 19** in the main report Letter from Principal Government Secondary and Higher Secondary School –Lakhigam dated 17.09.2019 	Rs. 33.19 Lacs
2	Construction of Houses for BPL Families (10 + 20 = 30 Houses)	**Annexure 20 :** in the main report letter from Sarpanch –Lakhigram dated 14.10.2020 	Rs. 42.02 +Rs. 74.42 = Rs.116.44 Lakhs
3	Maths/Science Laboratory at Secondary & Primary School, Lakhigam	**Annexure 21** in the main report Letter from Principal of Primary School Lakhigam	Rs. 25.48 Lakhs

		4	Chief Minister Relief Fund for COVID -19	**Annexure 22 :** Acknowledgement letter to main report for Contribution to GSDMA-CSR Fund dated 05.09.2020	Rs. 500 Lakhs
		6	Donation to Seva Rural Trust,Jhagadia for installation of Bio Optical Meter	• **Annexure 23** Letter dt. 03.10.20 from Sewa Rural trust is attached.	Rs. 30 Lakhs
		7	Donation to Gram Seva Trust, Kharel for upgradation of NICU/ICU facilities	**Annexure 24**: in main report letter dt.18.09.20 from Gram Seva Trust Kharel	Rs. 25 Lakhs
		8	Donation to Civil Hospital for setting up New Born Hearing Centre	**Annexure 25 A**: in main report letter from Gujarat CSR Authority dated 09.07.2019	Rs. 12.11 Lacs
		9	Donation to Civil Hospital for setting up New Born Hearing Centre Services	**Annexure 25 B**: Letter dt. 27.11.20 From Gujarat CSR Authority is attached	Rs. 3.42 Lacs
		10	Construction of Cooking Shed at Lakhigam	**Annexure 26:** cooking shade is provided at Lakhigam 	Rs. 9.04 lacs
		11	Donation to N D Desai Hospital and Medical Collage	**Annexure 26 A**: in the main report letter dated 28.09.2020 to provide 20 NICU beds	Rs. 50 Lacs
		12	Construction of 40 nos. of houses for BPL Families	**Annexure 27** Letter dt. 20.10.20 from TDO is attached	Rs. 126 lacs (In progress)

13	Construction of Sub health Centre at Lakhigam	**Annexure 28** Letter dt. 31.12.20 from TDO is attached	Rs. 50 Lacs (In progress)

The other key CSR activities includes –

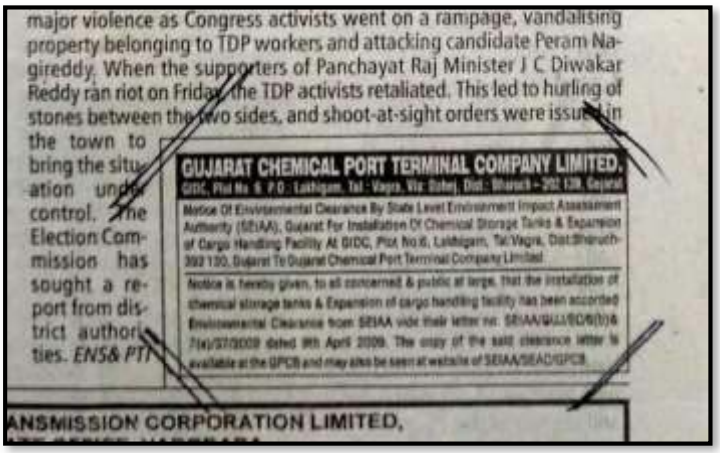
- Construction of PHC Building – 0.99 Lacs
- Installation of R O Water Plant at Community Hall – 5.86 lacs
- Water Tank for bath at Lakhabava Temple – 3.06 lacs
- Contribution to Shilpa School – Rs. 3 Lacs
- Contribution to Navratri Festival – Rs. 1 lacs
- Food Distribution during flood – Rs. 3 Lacs
- MS Grill at Govt. Office - Rs. 0.4 Lacs
- Distribution of School Bags, Uniform, etc at secondary school & Construction of Roof – Rs. 4.63 lacs
- Laboratory Building Secondary School – Rs. 3.71 Lacs
- Donation of tarpaulin sheet in Kerala – 17.09 lacs
- Summit of IIT – 5.9 lacs
- Contribution to mentally disabled children society 5 lacs
- Distribution of Masks and Food at Lakhigam during Covid pandemic

Total expenditure incurred as a part of CSR and/or socioeconomic activities during the last 2 years was @ INR 10.34 crore.

COMPLIED.

40	The management shall ensure that the unit complies with all the environmental protection measures and risk mitigation measures / safeguards proposed by them.	GCPTCL management has been complying with the environmental protection measures and risk mitigation measures / safeguards as suggested in EIA and EMP. **COMPLIED.**
41	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall be restarted until the desired efficiency has been achieved.	GCPTCL is a Port and Storage Terminal and its main activities involves handling of hazardous chemicals (i.e. receiving/dispatch and storage) in an enclosed system. As no manufacturing activity is involved, no process gas emissions is envisaged. However, GCPTCL has engaged MoEF&CC and NABL accredited laboratory and schedule – 1 auditor for carrying out Ambient Air Quality Monitoring, Workplace monitoring and VOC monitoring respectively.

		Noted and being complied.
42	The project management shall also comply with all the environment protection measures, risk mitigation measures and safeguards recommended in the EIA/EMP report as well as other proposals made by them.	The recommendations/suggestions given in the EMP of the EIA reports is being considered in the design stage of the project. **COMPLIED.**
43	The applicant 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 and in agreement.**
44	No further expansion or modification in the plant shall be carried out without prior approval of the MoEF/SEIAA, as the case may be. In case of deviations or alterations in the project proposal from those submitted to MoEF/SEIAA/SEAC for clearance. A fresh reference shall be made to the SEIAA/SEAC to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	**Noted and in agreement.**
45	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 therein. The funds so provided shall not be diverted for any other purpose.	Budgeting for Environment protection measures and CSR including socio-economic constitutes a part of overall budget plan and sufficient funds are earmarked every year for environmental management program including monitoring and analysis. **Environment Budget: 2020 – 21** SN Item INR - Lakh 1 Environment monitoring & Hazardous waste management 13.45 2 Oil spill response 54.69 3 Green belt/horticulture 19.00 4 Housekeeping 19 5 Drain cleaning 1.0 Total - Lakhs 107.14

		COMPLIED.
46	The applicant 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 gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional office of the Ministry.	Environment clearance letter published in newspaper Gujrat Samachar in Gujarati and Indian express in English dtd. 25.04.2009. Sample image of the publication is appended as below for ready reference.  major violence as Congress activists went on a rampage, vandalising property belonging to TDP workers and attacking candidate Peram Nagireddy. When the supporters of Panchayat Raj Minister J C Diwakar Reddy ran riot on Friday, the TDP activists retaliated. This led to hurling of stones between the two sides, and shoot-at-sight orders were issued in the town to bring the situation under control. The Election Commission has sought a report from district authorities. ENS& PTI GUJARAT CHEMICAL PORT TERMINAL COMPANY LIMITED. GIDC, Plot No. 6 P.O. : Lakhigam, Tal. : Vagra, Via. Dahej, Dist. : Bharuch – 392 130, Gujarat Notice Of Environmental Clearance By State Level Environment Impact Assessment Authority (SEIAA), Gujarat For Installation Of Chemical Storage Tanks & Expansion of Cargo Handling Facility At GIDC, Plot No.6, Lakhigam, Tal.Vagra, Dist.Bharuch-392 130, Gujarat To Gujarat Chemical Port Terminal Company Limited Notice is hereby given, to all concerned & public at large, that the installation of chemical storage tanks & Expansion of cargo handling facility has been accorded Environmental Clearance from SEIAA vide their letter no. SEIAA/GUJ/EC/6(b)/16 7(a)/37/2009 dated 9th April 2009. The copy of the said clearance letter is available at the GPCB and may also be seen at website of SEIAA/SEAC/GPCB. ANSMISSION CORPORATION LIMITED, **COMPLIED.**
47	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 & 1st December of each calendar year.	Half yearly compliance status report of Environment Clearance is regularly submitted to MoEFCC, Bhopal. **COMPLIED.**
48	The projects authorities shall also adhere to the stipulations made by the GPCB.	The site has valid Common Consent Authorization granted by GPCB and its all conditions are being complied. **COMPLIED.**
49	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Part of the project executed and balance is reflected in the EC & CRZ clearance granted in the year 2016. **COMPLIED.**
50	The SEIAA may revoke or suspend the clearance, if implementation of any of	**Noted.**

	the above conditions is not found satisfactorily.	
51	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. The above conditions will be enforced, interalia under the provisions of the Water (Prevention & control of pollution) Act 1974, Air (Prevention & control of pollution) Act 1981, the Environment (Protection) Act1986, Hazardous Wastes(Management and Handling) Act 2003 and Public Liability Insurance Act 1991 along with their amendments and rules.	**Noted.**
52	The Environmental Clearance is valid for five years from the date of issue.	**Noted.**