

Kapil

From: sfplant@sarex.com
Sent: 01 June 2022 10:39
To: ecompliance-mh@gov.in
Subject: Submission of EC compliance report for Sarex Overseas, Plot No-N-129 & N-130, MIDC Tarapur, Boisar, Tal & Dist- Palghar, Maharashtra. (Six monthly compliance report for the period October -2021 to March 2022)-Reg.

To,
The Director,
Ministry of Environment Forests & Climate Change,
Regional Office, (WCZ),
Ground Floor, East Wing,
New Secretariat Building,
Civil Lines, Nagpur – 440001

Ref.: Environmental Clearance letter no. EC(SO)-2009/136/CR.38/TC.1 dated 3rd January 2010 granted by SEIAA, Govt. of Maharashtra.

Subject: Submission of EC compliance report for Sarex Overseas, Plot No-N-129 & N-130, MIDC Tarapur, Boisar, Tal & Dist- Palghar, Maharashtra. (Six monthly compliance report for the period October -2021 to March 2022)

Dear Sir,

We have received the Environmental Clearance from State Environment Impact Assessment Authority (SEIAA), Government of Maharashtra on 3rd January 2010 for our project manufacturing of fine chemicals.

Herewith we are submitting the six monthly compliance report for the period from October 2021 to March 2022 in the prescribed format. Report is giving all the details of the project along with the status of the project.

With this reference we wish to submit the details required as below:

1. Current status of Project & Point wise compliance report
2. Data sheet of the project
3. Environmental Monitoring report (attached as Annexure II)
4. Other documents viz. EC letter, Consent to operate, Water supply permission, Form-IV, Form-V, Form-7, etc. which are attached as annexures.

The EC compliance report along with the relevant Annexures can be downloaded as a single pdf from the Wetransfer link below :

<https://we.tl/t-BCqzaxtVu0>

The Wetransfer link is valid till 7th June 2022.

We hope you will find the submission in line with your requirements.

Thanking You.

For Sarex Overseas

N.Salgiya
President



Sarex

Sarex stands for quality Products!
GST No. 27AABCS8425M1ZX



CORONAVIRUS 2019-nCoV

Sarex is 100% operational

- ☑ We follow all COVID related SOPs.
- ☑ All staff & workers have been vaccinated with both doses.
- ☑ We have sponsored COVID-19 Test (RT-PCR) for its employees & workers.
- ☑ Daily checking of oxygen levels & temperature of all employees & visitors.
- ☑ Use of sanitizers are ensured from employees & visitors.
- ☑ We ensure use of mouth mask & social distancing.
- ☑ Office areas are being sanitized on regular intervals.
- ☑ We avoid personal meetings & encourage online meetings of staff.
- ☑ Awareness programs are being arranged for Employees & Workers.
- ☑ COVID-19 Test is made mandatory for employees returning from long leave.

Corporate Office:

501-502, Waterford, C Wing, C D Barfiwala Marg, Juhu Lane,
Andheri W, Mumbai - 400 058, Maharashtra, India.
Phone: **+91 22 6128 5566 / 4218 4218** | Fax: **+91 22 4218 4350**
Web: www.sarex.com

Factory:

Plot No. N129 - N132 & N232, MIDC,
Tarapur - 401 506, Maharashtra, India.
Phone: **+91 2525 243 900**

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1. Present Status of Project:

1. This is the project of Manufacturing of Synthetic Organic Chemicals for production of fine chemicals.
2. The project has already been constructed after receiving EC vide letter EC(SO)-2009/136/CR.38/TC.1 dated 3rd January 2010 and Consent to Establish. EC letter & CTE are enclosed herewith. (**Refer Annexure-I for the EC letter**)
3. Environment monitoring has been carried out and the reports are enclosed as **Annexure-2**
4. All the Consents to Establish & Operate is enclosed as **Annexure-3 and Annexure-4 respectively** .
5. Water supply permission from the competent authority is enclosed as **Annexure-7**
6. Form-7 is enclosed as **Annexure-11**.
7. Form-IV along with valid CHWTSDF permission is enclosed as **Annexure-13**
8. Form –V is enclosed as **Annexure-17**

Point by Point comment on Environment Clearance letter		
Sr. No	EC compliance conditions	Remarks
1.	This clearance is subject to conditions stipulated in MoEF office memorandum J-11013/5/2010-IA-II(I) dated 20 th October, 2010 .	Noted for compliance
2.	"Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted In the Environment department before start of any construction work at the site.	CTE has been obtained and enclosed in Annexure-3 . The CTO is enclosed as Annexure – 4
3.	No land development / construction work preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities	No land development / construction work preliminary or otherwise relating to the project has been taken up without obtaining the due clearance from respective authorities. The project has been taken up only after obtaining the due clearance from respective authorities
4.	No additional land shall be used acquired for any activity or the project without obtaining proper permission.	No additional land is required, project developed on land in Notified Industrial Area. Industry assures that no additional land is used or shall be used for any activity prior obtaining obligatory permissions.
5.	For controlling, fugitive littoral dust, regular sprinkling of water & windshields at appropriate distances in the vulnerable areas of the plant shall be ensured.	Dust emission controls measures were followed during construction activity. Same implemented for the operation phase to reduce the fugitive natural dust.
6.	Regular monitoring, of the air quality, including SPM & SO ₂ levels both in workzone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board and submit report accordingly to MPCB	<p>The PM₁₀, PM_{2.5} , SO₂ NO_x NH₃ were monitored along with other pollutants at the main gate of the plant. The values of the levels are given below :</p> <p>PM₁₀ : 68.98 µg/m³ PM_{2.5} : 34.22 µg/m³ SO₂ : 46.94 µg/m³ NO_x : 41.30 µg/m³ NH₃ : 205.25 µg/m³</p> <p>The above results depict that the ambient air quality levels are within the respective NAAQS limits.</p> <p>The workzone monitoring was also carried out for HCl near process plant and the same was found to be 21.6 mg/ m³</p>

		Refer Annexure-2 for the environmental monitoring reports
7.	A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.	Detailed rainwater harvesting has been prepared and implemented. Bore wells are not allowed as site is located in the Notified Industrial Area. The photographs of the rain water harvesting structures are enclosed as Annexure-5 .
8.	Arrangement shall be made such that the wastewater and the storm water don't get mixed.	Separate storm water drains are provided as per the natural slope. To ensure effluent and storm water does not get mixed, . Industry has provided well defined effluent network and storm water network. The photographs of the separate stormwater drain and the effluent drain are enclosed as Annexure – 6
9.	Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board	Periodic monitoring of ground water is not applicable, as ground water is not being extracted for the operation of the plant.. The PP is operating factory using MIDC fresh water for which they have existing permission from MIDC. Refer Annexure – 7 for the water supply agreement with midc .
10.	Leq of Noise level shall be maintained as per standards for people working in the high noise area requisite personal protective equipment like earplug etc. shall be provided.	<p>Industry is maintaining noise levels well within permissible norms. Existing D.G. Sets are provided with acoustic enclosures. All equipment's and machineries are maintained and lubricated regularly. Regular noise monitoring is carried out to ensure Noise levels within norms for existing operation.</p> <p>The ambient noise monitoring was carried out at 8 locations. The range of the noise levels monitored during the daytime ad the nighttime are given below :</p> <p>The Leq (daytime) varied from 60.7 dB(A) (100m North side) to 70.7 dB(A) (Near cooling tower)</p> <p>The Leq (nighttime) varied from 49.6 dB(A) (Near Main Gate) to 64.5 dB(A) (Cooling Tower)</p> <p>It is observed that the noise levels were found to be within the prescribed standards of air in respect of noise during</p>

		<p>the daytime and during the nighttime.</p> <p>In addition to this, Industry has provided personal protective equipment's like earplugs to the employees working in the high noise area and ambient noise monitoring reports area attached as an Annexure-2</p>
11.	<p>The overall noise level in and around the plant shall be kept well within the standards by providing noise control measures including acoustic hoods , silencer , enclosures etc. On all sources. The ambient noise levels shall confirm to the prescribed under Environment (Protection) Act 1986 Rules .</p>	<p>Industry is maintaining noise levels well within permissible norms. D.G. Sets are provided with acoustic enclosures. All equipment's and machineries are maintained and lubricated regularly for existing operation. Honking is strictly prohibited within factory premises A survey of Noise level in the study area will be carried out once in a year to ensure that the noise levels are within stipulated standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.</p> <p>The ambient noise monitoring reports attached as an Annexure-2</p>
12.	<p>Green belt shall be developed & maintained around the plant ----- Green belt Development shall be carried out considering MPCB guidelines including selection of plant species and in consultation with the local DFO Agriculture Dept</p>	<p>Currently the Green Belt developed inside the premises is not meeting the norm of 40% as required for the critically polluted area norms. The green belt inside the premises is 167.28 sq.m i.e, 1.99 say 2% . Sarex Overseas has entered into agreement with MIDC for the balance green belt development on the open spaces outside the factory premises owned by MIDC The tree plantation will be done on the following open space plots - the details of which are presented below:</p> <p>Plot No. OS-61 : 876 sq.m Plot No. OS-6/1 : 3719 sq.m Plot No. OS -4 : 2928 sq.m</p> <hr/> <p>Total green belt area outside the premises of the factory : 7523 i.e, 89.5% of the total plot area</p> <hr/> <p>Hence the total green belt including the green belt inside the premises and outside the premises is as under :</p> <p>Green belt inside the factory premises :</p>

		<p>167.28 sq.m (2% of the total plot area)</p> <p>Green belt outside the premises on open spaces owned by MIDC : 7523 (89.5% of the total plot area)</p> <p>Hence the total green belt : 7525 sq.m (91.5% of the total plot area)</p> <p>The NOC from MIDC for developing the green belt on the aforesaid outside plots is enclosed as Annexure-19</p> <p>Green belt will be developed as per CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.</p>
13.	Adequate safety measures shall be provided to limit the risk zone within the plant boundary in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.	Industry has provided the adequate safety measures to limit the risk zone within the plant boundary, in case of an accident. Risk Analysis, On –Site Emergency plan is prepared and regularly updated. The updated onsite emergency plan is enclosed as Annexure- 9
14.	Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per factories act.	Occupational health surveillance of the workers is being done on a regular basis and Form 7 will be maintained under Factories act indicates summary of fitness of the people. The latest Form-7 is attached as Annexure-11
15.	The company shall make the arrangement for protection of fire hazards during manufacturing process in material handling.	The company has all the arrangement for protection of possible fire hazards during manufacturing process in material handling. The fire-fighting equipment details along with the photographs of the same are enclosed as Annexure-12
16.	The project authorities must strictly comply with the rules and regulation with regard to handling and disposal of hazardous waste (Management and Handling) Rules 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.	Project proponent has valid authorization from MPCB for collections/ treatment/ storage/ disposal of hazardous wastes. Project proponent is strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and Other Waste (Management and Transboundary movement) Rules, 2016. Annual returns in Form- 4 as required are regularly submitted to MPCB. The valid CHWTSDF permission along with the Form –IV is attached as Annexure -13

17.	<p>The company shall undertake following Waste Minimization Measures.</p> <ul style="list-style-type: none"> • Metering of quantities of active ingredients to Minimize waste • Reuse of by – products from the process as raw materials or as raw material substitutes in other process • Maximizing recoveries • Use of automated material transfer system to minimize Spillage • Use of closed Feed system into batch reactors 	<p>Followed as per the requirement:</p> <p>(a) All raw materials are metered and controlled for its quantities to minimize waste.</p> <p>(b) The by product is not generated in process</p> <p>(c) Recovered Solvent sale to Authorized Recycler and preprocessor. The record of the solvent recovery for the period October 2021 – March 2022 is enclosed as Annexure – 18</p> <p>(d) Pumps are used to transfer liquids in closed pipelines</p>
18.	Regular mock drills for the on site emergency management plan shall be carries out implementation of changes / improvements required if any in the on site management plan shall be ensured.	Regular mock drills for the on-site emergency management plans are being carried out. Implementation of changes / improvements in the on-site management plan is updated time to time. The latest mock drill report along with latest safety audit report is enclosed as Annexure- 14
19.	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A separate Environmental Cell has been arranged at the project level which consist of the qualified personnel under the control of EHS head, who is reporting directly reporting to the head operations of the organization for implementation of the stipulated environmental safeguards. The structure of the environmental management cell is enclosed as Annexure-15
20.	Transportation of ash will be through closed containers and all members should be taken to prevent spilling of the ash.	Not applicable as furnace oil is being used as fuel. Now furnace oil has been replaced with cleaner fuel i.e PNG for the boiler
21.	Separate silos will be provided for collecting and storing bottom ash and fly ash	Not applicable as the furnace oil is being used as a fuel for the boilers. Now furnace oil has been replaced with cleaner fuel i.e PNG for the boiler
22.	Separate funds shall be allocated for implementation of environmental protection measures EMP along with item wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should reported to the MPCB & this department	Separate funds are allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost are included as part of the project cost. The funds earmarked for the environment protection measures will not be diverted for other purposes and year-wise expenditure shall be reported to the MPCB & the other relevant regulatory agencies.

23.	The project management shall advertise at in two local newspapers which circulated in the region around the project. One of which shall be in the Marathi language of the local concerned within seven days of issue of this letter informing that the project has been accorded environmental clearance and copies of clearance letter are available which the Maharashtra Pollution Control Board and can be seen on Website of the company.	We have inadvertently missed out publishing the advertisement of the obtained Environmental Clearance in the vernacular / local newspaper and English newspaper. We regret the same.
24.	Project management should submit half yearly compliance report stipulated prior environment clearance terms and condition in the hard and soft copies to the MPCB & this department on 1 st June & 1 st December of each calendar year.	The half yearly compliance report for the period October 2021 to March 2022 is being submitted at present.
25.	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO if any from whom suggestion representation if any were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Noted & Agreed. We have not received any suggestions and representations while processing the proposals from concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local and the local NGO. Hence this clearance copy was not given to them. Copy of Environmental clearance letter will be shortly uploaded on company website
26.	The proponent shall upload the status of compliance of the stipulated EC conditions including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective zonal officer of CPCB and the SPCB. The criteria pollutant levels namely SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectorial parameters indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	We will upload the status of compliance of the stipulated EC conditions, including results of monitored data on company website and shall update the same periodically. The pollutant levels namely; SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) are being monitored and are being displayed at an entrance (the main gate) of the company. The photograph of the same is enclosed as Annexure- 16
27	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF the respective zonal Office of CPCB and the SPCB.	We are regularly submitting the six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to (a) the Regional Office of MoEF, (b) the Regional Directorate of (i) CPCB and (ii) the Regional and the Sub – Regional office of MPCB.

26	<p>The environmental statement for each financial year ending 31st March in Form-V mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules 1986 amended subsequently shall also be put on the website of the company long with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.</p>	<ul style="list-style-type: none"> • The environmental statement for the financial year ending 31st March in Form-V is being submitted by the project proponent regularly to the Maharashtra State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently. The latest Form-V is enclosed as Annexure- 7 • Environment Statement in Form V has been put on the Company website and the weblink for the same is as under: <p>https://www.sarex.com/fine/storage/app/media/EC-Letter-2021.pdf</p> <p>https://www.sarex.com/fine/storage/app/media/Environmental-Audit-Report-2020.pdf</p> <ul style="list-style-type: none"> • Form-V is also being sent as an Annexure to the Regional Office of MoEFCC along with this EC compliance report . • Status of compliance of EC conditions has been put on the Company website and sent to Regional Office of MoEFCC by e-mail. The weblink for the aforesaid compliance report is as under : <p>https://www.sarex.com/fine/storage/app/media/8-EC-compliance-report-RO-MoEF-Nagpur.pdf</p>
27	<p>The Environmental Clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project has not violated any environmental laws in the past and whatever decision of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.</p>	<p>Noted for compliance.</p>

DATA SHEET
Monitoring the Implementation of Environmental Safeguards
Ministry of Environment, Forest & Climate Change
Regional Office (West Central Zone), Nagpur
Monitoring Report
Part – I
DATA SHEET

1.	Project Type: River-valley / Mining / Industry / Thermal / Nuclear / Other (Specify)	Industry
2.	Name of the Project	Proposed Expansion of M/s Sarex Overseas, Tarapur at Plot No. N-129 & N-130 ,MIDC Tarapur Boisar Tal: Palghar Dist Thane for the manufacture of synthetic organic chemicals
3.	Clearance Letter (s) / OM No. and date	EC(SO)-2009/136/CR.38/TC.1 dated 3rd January 2010
4.	Location	
	a. District (s)	Palghar (formerly in the District Thane)
	b. State (s)	Maharashtra
	c. Latitude	Latitude: 19°47'14.67"N
	d. Longitude	Longitude: 72°43'9.82"E
5.	Address for correspondence	M/s Sarex Overseas, Tarapur at Plot No. N-129 & N-130 ,MIDC Tarapur Boisar Tal: Palghar Dist Thane
	a. Address of concerned Project Chief Engineer (with Pin Code & Telephone/ Telex/ Fax Numbers) :	Mr. Naresh Salgiya
	b. Address of Executive Project Engineer / Manager (with pin code/fax numbers)	M/s Sarex Overseas, Tarapur at Plot No. N-129 & N-130 ,MIDC Tarapur Boisar Tal: Palghar Dist Thane Pin – 401506 Tel.: 02525 605566 Fax.: 02525 271414 Mobile : +91-9860384233
6.	Salient features	
	a. Of the Project	Total Production capacity : 5000 kg /Month The production details are as under : Ven-2 (CG 35-1597) – 2000 kg/Month TDA – 1000 kg/Month Ketoprofen Nitrile : 2000 kg/ Month Total water requirement : 55 KLD (40 KLD for industrial use and 15 for domestic use) Effluent generated : Domestic : 4.8 KL/day Plant operation : 20 KL/day

		<p>Fuel requirement : Furnace Oil : 120 Lit /hr (but now replaced by PNG cleaner fuel for which the corresponding requirement is 2890 kg/day HSD : 100 lit /month</p> <p>Maximum Demand with connected load : 1266.5 KW Additional Power : 362 KVA (Source : MSEB) Backup Power : 350 KVA D.G set</p>
	b. Of the Environmental Management Plan	<p>Solid waste management :</p> <p>Distillation residue : 700 kg/month (Disposal sent to CHWTSDf) Chemical sludge from Effluent Treatment Plant : 20 kg/day (Disposal : sent to CHWTSDf)</p> <p>Air pollution control measures :</p> <ul style="list-style-type: none"> ➤ 3 nos of scrubbers will be provided ➤ Adequate stack height would be provided to the boiler, D.G sets, scrubber as air pollution equipment. <ul style="list-style-type: none"> • Stack height attached to the boiler : 30m • Stack height attached to the D.G set (350 KVA) : 4m (above the height of the building)
7.	Breakup of the Project area	
	a. Submergence Area: Forest & Non Forest	Not Applicable as the project is located in the notified industrial estate i.e, MIDC Tarapur
	b. Others	--
	a. Total Plot Area	8400 sq.m
	b. Built - Up Area (Including Road)	2866.53 sq.m
	c. FSI area	6720 Sq. m
	d. Non – FSI Area	1680 Sq. m.
8.	<p>Breakup of the Project affected population with enumeration of those losing houses/dwelling units only, agricultural land only, both dwelling units & both dwelling units & agricultural land & landless laborers/artisan</p> <p>a. SC, ST/Adivasis</p> <p>b. Others</p> <p>(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey carried out gives details and years of survey.)</p>	Not Applicable as there is no project affected population as the project is located within the notified industrial area i.e, MIDC Tarapur
9.	<p>Financial Details</p> <p>a. Project costs as originally planned & subsequent revised estimates and the year of price reference.</p>	<p>Estimated cost of the project : Rs. 19 crores (Only of expansion) - Year of price reference : 2010</p> <p>Revised cost of the project : Rs. 57.44 Crores (Including</p>

		existing) Year of price reference : 2018
	b. Allocations made for Environmental Management Plan with item wise & year wise breakup.	Capital cost for the EMP : 306 lakhs Recurring cost of the EMP : 97.4 lakhs per annum
	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.	--
	e. Actual expenditure incurred on the Project so far	--
	f. Actual expenditure incurred on the Environmental Management Plan so far	Capital cost for the EMP : Rs. 254 lakhs (Existing) Recurring cost for the EMP : Rs. 121 lakhs per annum (Existing)
10.	Forest land requirement	Not Applicable as there is no forest land involved as the project is located in the notified industrial area i.e, MDC Tarapur
	a. The status of approval for diversion of Forestland for non-forestry use	---
	b. The Status of clearing felling	--
	c. The status of compensatory Afforestation programme in the light of actual field experience	---
11.	The status of clear felling in non-forest areas (such as submergence area of reservoir, Approach roads), if any with quantitative information	Not Applicable as the project is located in the notified industrial area i.e, MDC Tarapur
12.	Status of construction	
	a. Date of commencement (Actual and/or Planned)	15/03/2012
	b. Date of completion (Actual and/or Planned)	30/09/2012
13.	Reasons for the delay if the project is yet to start	Not applicable
14.	Dates of site visits	
	a. The dates on which the Project was monitored by Regional Office on previous occasions, if any	15 th December 2020
	b. Date of site visit for this monitoring Report	None

15.	<p>Details of correspondence with project authorities for obtaining action plan / information on status of compliance to safeguards other than the routine letters for logistic support for site visit.</p> <p>(The monitoring report may obtain the details of all the letters issued so far but the later reports may cover only the letters issued subsequently)</p>	<p>Letter no F.No. EC-1134/RON/2020-NGP/6322 dated 5th March 2020 from the Regional Office of MoEF ,Nagpur</p>
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Enclosure-1

Item –wise break up of environmental expenditure for the period October 2021 to March 2022

a) Breakup of the capital cost towards the Environmental Management Plans

Sr.No	Component	Capital cost in Rs. lakhs
1	Air pollution control	35
2	Water pollution control	68
3	Noise pollution Control	3
4	Occupational Health	7
5	Environmental Monitoring Budget	5
6	Hazardous waste storage and disposal	130
7	Green Belt	6
	Total	254

b) Breakup of the recurring expenditure towards the Environmental Management Plans

Sr.No	Component	Recurring cost in Rs. lakhs /Annum
1	Air pollution control	9
2	Water pollution control	13
3	Noise pollution Control	2
4	Occupational Health	3
5	Environmental Monitoring Budget	2
6	Hazardous waste storage and disposal	90
7	Green Belt	2
	Total	121

List of Annexures

Sr.No	Title of Annexure
1.	EC letter
2.	Environmental Monitoring Reports
3.	Consent to Establish
4.	Consent to Operate
5.	Rain water harvesting details
6.	Photographs of the separate storm water drain and the effluent drain
7.	Water supply agreement with competent authority
8.	Photos of the existing green belt
9.	Onsite Emergency Plan
10.	Write up on leak detection devices
11.	Form-7
12.	Photographs of the fire fighting equipment
13.	Latest copy of the Form-IV and the CHWTSDf certificate
14.	Latest mock drill report
15.	Structure of the Environmental Management Cell along with responsibilities of the personnel
16.	Photograph of the monitoring data displayed
17.	Latest Form-V
18.	Solvent recovery data for the period October 2021 to March 2022
19.	NOC from MIDC for the green belt development on the Open Space plots outside the factory premises

Annexure – 1

Environmental Clearance Letter

Government of Maharashtra

No. EC (SO) -2009/136/CR.38/TC.1
Environment department
Room No. 217, 2nd floor.
Mantralaya Annexe,
Mumbai- 400 032.
Dated: 3rd January, 2010

To,
M/s. Sarex Overseas Ltd.
Kakad Chambers,
2nd floor, 132 A.B.Road,
Worli, Mumbai 400018
Maharashtra

Sub: Proposed expansion of "M/s. Sarex Overseas Ltd." at plot No. 129 & 130, MIDC, Tarapur (Boisar), Tal - Palghar, Dist - Thane - Environmental clearance regarding.

Sir,

This has reference to your communication dated nil on the above mentioned subject. The proposal was considered as per the EIA Notification²- 2006, by the State Level Expert Appraisal Committee, Maharashtra in its 15th meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 20th and 30th meetings. Authority noted office memorandum of MOEF J-11013/5/2010-IA-II(1) dated 26th October, 2010 regarding lifting the moratorium on consideration of projects for environmental clearance.

2. It is noted that the proposal is for grant of Environmental Clearance for "M/s. Sarex Overseas" At plot No. N 129 to 130, MIDC, Tarapur(Boisar), Tal - Palghar, Dist - Thane. The project considered by SEAC under screening category 5 (f) of EIA Notification 2006.

Project information from submitted & considered documents is summarized as below-

Name of the Project : Proposed expansion of "M/s. Sarex Overseas Ltd." Tarapur.
Type of Project : Synthetic organic chemicals industry (5f)
Project : Production of fine chemicals
Project Proponent : M/s. Sarex Overseas
Location of the project : Plot No. N 129 & 130, MIDC, Tarapur (Boisar), Tal - Palghar, Dist - Thane.
Existing factory of M/s. Sarex Overseas Ltd. at adjoining plot No. N-131-132 MIDC, Tarapur.
Plot area : 8400 sq. mts.
Built up area : 2866.53 sq. mts.
Estimated cost of the project : Rs. 19 Crores
Production capacity:

Sr. No.	Product	Capacity
1.	Ven-2(CG 35-1597)	2000 Kg/Month
2.	TDA	1000 Kg/Month
3.	Ketoprofen Nyrile	2000 Kg/Month

Prash

Water Requirement:

Total Water requirement: 55 KL/Day (40 KL/Day for industrial use, 15 KL/Day for domestic use & gardening)

Effluent generated: Domestic: 4.8 KL/Day; Plant operation: 20 KL/Day

Effluent will be treated in ETP is based on Physico chemical process followed by two stage Activated Sludge Process. Treated effluent should meet MPCB standards and then it will send to CETP.

Fuel requirement:

Furnace oil: 120 L/Hr

HSD (for DG Set): 100 L/Month

Solid Waste Management:

Distillation residue: 700 kg/Month; disposal: sent to CHWTSDF.

Chemical sludge from Effluent treatment plant: 20 Kg/day, disposal: sent to CHWTSDF.

Non hazardous solid waste will be treated in vermiculture & used as green manure.

Power requirement: Maximum demand with connected load: 1266.5 KW, Additional power: 362 KVA source: MSEB; DG set (350 KVA) for backup.

Air pollution control measures:

- 3 Nos. of scrubbers will be proposed
- Adequate stack height would be provided to boiler, DG sets, scrubber as Air pollution Equipment.
 1. Stack height attached to boiler : 30 m
 2. Stack height attached to DG set (350 KVA): 4 m(above the height of building)

3. The proposal has been considered by SEIAA in its 20th and 30th meetings & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :
 - (i) This clearance is subject to conditions stipulated in MoEF office memorandum J-11013/5/2010-IA-II(1) dated 26th October, 2010.
 - (ii) "Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
 - (iii) No land development / construction work preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities.
 - (iv) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
 - (v) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.
 - (vi) Regular monitoring of the air quality, including SPM & SO₂ levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
 - (vii) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.

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- (viii) Arrangement shall be made that waste water and storm water do not get mixed.
- (ix) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (x) Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
- (xi) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. On all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.
- (xii) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xiii) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
- (xiv) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
- (xv) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- (xvi) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
- (xvii) The company shall undertake following Waste Minimization Measures:
- Metering of quantities of active ingredients to minimize waste.
 - Reuse of by- products from the process as raw materials or as raw material substitutes in other process.
 - Maximizing Recoveries.
 - Use of automated material transfer system to minimize spillage.
 - Use of "Closed Feed" system into batch reactors.
- (xviii) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
- (xix) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xx) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.
- (xxi) Separate silos will be provided for collecting and storing bottom ash and fly ash.
- (xxii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
- (xxiii) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://envis.maharashtra.gov.in>



- (xxiv) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
 - (xxv) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
 - (xxvi) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
 - (xxvii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copy as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
 - (xxviii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
 - (xxix) The environmental clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.
4. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
 5. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years to start of production operations.
 1. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
 2. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.



Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environmental Appellate Act, 1997.

(Valsa R Nair Singh)
Secretary Environment
department & MS, SEIAA

Copy to:

1. Shri. Ashok Basak, IAS (Retd.), Chairman, SEIAA, 502, Charlesville, 'A' Road, Churchgate, Mumbai- 400 020, Maharashtra.
2. Shri. P.M.A Hakeem, IAS (Retd.), Chairman, SEAC, 'Jugnu' Kottaram Road, Calicut- 673 006 Kerala.
3. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
4. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
5. Regional Office, MPCB, Thane.
6. Collector, Thane.
7. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
8. Director(TC-1), Dy. Secretary(TC-2), Scientist-1, Environment department
9. Select file (TC-3).

Annexure – 2

Environmental Monitoring Reports

Plot No. A - 288, Road No. 16 Z, Opp. Agriculture Office Bus-stop, Thane Industrial Area, MIDC (Wagle Estate)
Thane (West) - 400 604. Maharashtra, India. • Tel.: 91-022-2580 1546 / 9920093829 / 7208579136 / 8097093007
Email : mktg@goldfinchengg.com, accounts@goldfinchengg.com, lab@goldfinchengg.com / Website : www.goldfinchengg.com**QF/LA/10-A****Report Ref. No. GFL/AA/R/22/03-120****Report Date: 25.03.2022****Analysis Report for Ambient Air Monitoring**

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	17.03.2022	Sample Description :	Ambient
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AA/22/03-120	Limits	Units	Test Method
Location	Near Main Gate			
Date/Duration	17.03.2022 (8 hrs)			
PM 10	68.98	100	µg/m ³	IS 5182 (part 23):2006 Reaffirmed – 2017 & CPCB (NAAQS volume 1)
PM 2.5	34.22	60	µg/m ³	CPCB (NAAQS volume 1)
SO ₂ conc.	46.94	80	µg/m ³	IS 5182 (part 2):2001 Reaffirmed -2017 & CPCB (NAAQS volume 1)
NO _x conc.	41.30	80	µg/m ³	IS 5182 (part 6):2006 Reaffirmed – 2017 & CPCB (NAAQS volume 1)
Ammonia	205.25	400	µg/m ³	CPCB NAAQS Volume-I
Carbon Monoxide	1.40	04	mg/m ³	IS 5182(part-10):1999 Reaffirmed-2014
Benzene	ND	05	µg/m ³	IS 5182 (part 11):2006 Reaffirmed - 2017& CPCB NAAQS volume I
Toluene	ND	---	µg/m ³	IS 5182 (part 11):2006 Reaffirmed - 2017& CPCB NAAQS volume I -
Xylene	ND	----	µg/m ³	IS 5182 (part 11):2006 Reaffirmed - 2017& CPCB NAAQS volume I -
Sampling carried out using HVS GOLDFINCH/INST-HVS/36 Calibrated on : 13.10.2021 Due on : 12.10.2022		Sampling carried out using ADS GOLDFINCH/INST-ADS/78 Calibrated on : 14.09.2021 Due on : 13.09.2022		

Remark- ND= Not Detected

For Goldfinch Engineering Systems Private Limited**Analyzed By****Govt. Analyst****Verified By****Lab-In-charge****Approved By****Director-Lab/Govt. Analyst**

QF/LA/10-C

Report Ref. No. GFL/AN/R/22/03128 to 134

Report Date: 25.03.2022

Analysis Report for Ambient Noise Level Survey

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Noise
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.-	Location	Ambient Noise Level		Test Method
		Day dB (Leq)	Night dB (Leq)	
GFL/AN/22/03-128	Near Main Gate	62.8	49.6	IS 9989-1981 Reaffirmed 2014
GFL/AN/22/03-129	Cooling Tower	70.7	64.5	
GFL/AN/22/03-130	Boiler House	68.6	61.9	
GFL/AN/22/03-131	Fire Hydrant Pump House	63.7	57.8	
GFL/AN/22/03-132	Near DG Set	67.6	64.0	
GFL/AN/22/03-133	100 m South side	61.7	54.5	
GFL/AN/22/03-134	100 m North side	60.7	57.8	
	M.P.C.B. Limit	75	70	

Survey carried out using dB meter
Sr. No. GOLDFINCH/INST- DB Meter /31
Calibrated On: 07.10.2021
Calibration due: 06.10.2022

For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt. Analyst

Verified By



Lab-In-charge

Approved By



Director-Lab/Govt. Analyst

QF/LA/10-D

Report Ref. No. : GFL/AW/R/22/03-127

Report Date: 25.03.2022

ANALYSIS REPORT FOR WORK PLACE MONITORING

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Workplace
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	Location	Parameter	Result	Limit	Unit	Test Method
GFL/AW/22/03-127	Process Plant	HCl	2.16	35	mg/m ³	EPA 0051

Sampling Carried out using
Handy Sampler Monitoring Kit
ID No. GOLDFINCH/INSTR-HD Sampler/83
Calibrated on - 06.08.2021
Calibration due - 05.08.2022

For Goldfinch Engineering Systems Private Limited

Analyzed By

Ukewkar

Govt. Analyst

Verified By

Har

Lab-In-charge

Approved By

Boke

Director-Lab/Govt. Analyst

QF/LA/10-B**Report Ref. No. GFL/AS/R/22/03-121****Report Date: 25.03.2022****Analysis Report for Stack Emissions Monitoring**

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-121	Limits	Units	Test Method
Stack Attached To	PNG Boiler			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.9		Meter	
Stack Height	32		Meter	
Fuel used & Consumption	PNG 2890		Kg/day	
Velocity of flue gases	6.54		m/sec	
Temperature of flue Gases	123		°C	
Flow/volume of flue Gases	14981.4		m³/hr	IS-11255 (Part7):2017
Nox Conc.	0.77	--	mg/Nm³	

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STACK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022**For Goldfinch Engineering Systems Private Limited****Analyzed By****Govt. Analyst****Verified By****Lab-In-charge****Approved By****Director-Lab/Govt. Analyst**

QF/LA/10-B**Report Ref. No. GFL/AS/R/22/03-122****Report Date: 25.03.2022****Analysis Report for Stack Emissions Monitoring**

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-122	Limits	Units	Test Method
Stack Attached To	DG Stack			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.11		Meter	
Stack Height	10		Meter	
Fuel used & Consumption	HSD		L/Hr	
Velocity of flue gases	8.70		m/sec	
Temperature of flue Gases	158		°C	
Flow/volume of flue Gases	297.4		m³/hr	
Particulate Matter	41.13	150	mg/Nm³	IS-11255 (Part 1) 1985,Reaffirmed-2014
Sulphur Di Oxide Content	10.11	275	Kg/day	IS-11255 (Part 2) 1985,Reaffirmed-2014

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STACK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022**For Goldfinch Engineering Systems Private Limited****Analyzed By****Govt. Analyst****Verified By****Lab-In-charge****Approved By****Director-Lab/Govt. Analyst**

QF/LA/10-B

Report Ref. No. GFL/AS/R/22/03-123

Report Date: 2022

Analysis Report for Stack Emissions Monitoring

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-123	Limits	Units	Test Method
Stack Attached To	Process Stack S-5 ST 201			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.1		Meter	
Stack Height	20		Meter	
Fuel used & Consumption	--			
Velocity of flue gases	4.17		m/sec	
Temperature of flue Gases	38		°C	
Flow/volume of flue Gases	117.8		m³/hr	EPA 0051
HCI	3.56	35	mg/Nm³	

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STACK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022

For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt. Analyst

Verified By



Lab-In-charge

Approved By



Director-Lab/Govt. Analyst

QF/LA/10-B**Report Ref. No. GFL/AS/R/22/03-124****Report Date: 25.03.2022****Analysis Report for Stack Emissions Monitoring**

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-124	Limits	Units	Test Method
Stack Attached To	Process Stack S-6 ST 202			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.1		Meter	
Stack Height	20		Meter	
Fuel used & Consumption	--			
Velocity of flue gases	4.93		m/sec	
Temperature of flue Gases	37		°C	
Flow/volume of flue Gases	139.3		m³/hr	EPA 0051
HCl	3.94	35	mg/Nm³	

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STACK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022**For Goldfinch Engineering Systems Private Limited****Analyzed By****Govt. Analyst****Verified By****Lab-In-charge****Approved By****Director-Lab/Govt. Analyst**

QF/LA/10-B

Report Ref. No. GFL/AS/R/22/03-125

Report Date: 25.03.2022

Analysis Report for Stack Emissions Monitoring

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	17.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-125	Limits	Units	Test Method
Stack Attached To	Process Stack S-7 ST 203			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.1		Meter	
Stack Height	20		Meter	
Fuel used & Consumption	--			
Velocity of flue gases	4.56		m/sec	
Temperature of flue Gases	36		°C	
Flow/volume of flue Gases	128.8		m³/hr	EPA 0051
HCI	4.29	35	mg/Nm³	

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STACK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022

For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt. Analyst

Verified By



Lab-In-charge

Approved By



Director-Lab/Govt. Analyst

QF/LA/10-B

Report Ref. No. GFL/AS/R/22/03- 126

Report Date: 25.03.2022

Analysis Report for Stack Emissions Monitoring

Name of the Industry :	M/s. Sarex Overseas Ltd ,MIDC Tarapur		
Date of Sampling :	16.03.2022	Sample Description :	Stack
Date of Receipt of Sample :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Started :	19.03.2022	Date of Analysis Completed :	25.03.2022

Sample Code No.	GFL/AS/22/03-126	Limits	Units	Test Method
Stack Attached To	Process Stack S-8			IS 11255 (Part 3) 2008 Reaffirmed 2018
Stack Diameter	0.1		Meter	
Stack Height	20		Meter	
Fuel used & Consumption	--			
Velocity of flue gases	5.16		m/sec	
Temperature of flue Gases	37		°C	
Flow/volume of flue Gases			m³/hr	
Chlorine	2.68	15	mg/Nm³	EPA 0051
HCl	3.51	35	mg/Nm³	EPA 0051

Sampling Carried out using
Stack Monitoring Kit
ID No. GOLDFINCH/INST-STOCK/48,49
Calibrated on -13.10.2021
Calibrated due -12.10.2022

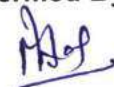
For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt. Analyst

Verified By



Lab-In-charge

Approved By



Director-Lab/Govt. Analyst

QF/LA/09

Report Ref. No.: GFL/W/R/22/03-44

Report Date: 23.03.2022

Analysis Report

Name of the Industry :	M/s. Sarex Overseas Limited, MIDC, Tarapur		
Date of Sampling :	17.03.2022	Sample Description :	Effluent Sample
Date of Receipt of Sample :	17.03.2022	Sample Volume :	2 Liters
Date of Analysis Started :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Completed :	23.03.2022	Sample Container :	Polythene Cans

Sr. No.	Parameters	Unit	GFL/W/22/03-44 ETP Inlet	Limit as per MPCB Consent	Test Method Used
1.	pH	--	8.4	--	APHA-4500 H+ B (23rd Edition)
2.	Chemical Oxygen Demand	mg/l	3500	--	APHA 508 A (15 th Edition)
3.	Biological Oxygen Demand (3 days @ 27°C)	mg/l	980	--	IS 3025 (p- 44):1993(RA-2003)
4.	Total Dissolved Solids	mg/l	15400	--	APHA 2540 C (23rd Edition)
5.	Total Suspended Solids	mg/l	38	--	APHA 2540 D (23rd Edition)
6.	Oil & Grease	mg/l	12	--	IS 3025 part 39

For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt Analyst

Verified By



Lab-Incharge

Approved By



Director-Lab/Govt. Analyst

Page 1 of 1

QF/LA/09

Report Ref. No.: GFL/W/R/22/03-45

Report Date: 23.03.2022

Analysis Report

Name of the Industry :	M/s. Sarex Overseas Limited, MIDC, Tarapur		
Date of Sampling :	17.03.2022	Sample Description :	Effluent Sample
Date of Receipt of Sample :	17.03.2022	Sample Volume :	2 Liters
Date of Analysis Started :	18.03.2022	Sample Collected by :	Laboratory
Date of Analysis Completed :	23.03.2022	Sample Container :	Polythene Cans

Sr. No.	Parameters	Unit	GFL/W/22/03-45 ETP Outlet	Limit as per MPCB Consent	Test Method Used
1.	pH	--	8.15	--	APHA-4500 H+ B (23rd Edition)
2.	Chemical Oxygen Demand	mg/l	132	--	APHA 508 A (15 th Edition)
3.	Biological Oxygen Demand (3 days @ 27°C)	mg/l	12	--	IS 3025 (p- 44):1993(RA-2003)
4.	Total Dissolved Solids	mg/l	1820	--	APHA 2540 C (23rd Edition)
5.	Total Suspended Solids	mg/l	12	--	APHA 2540 D (23rd Edition)
6.	Oil & Grease	mg/l	<1	--	IS 3025 part 39


For Goldfinch Engineering Systems Private Limited

Analyzed By



Govt Analyst

Verified By



Lab-Incharge

Approved By



Director-Lab/Govt. Analyst

Page 1 of 1

QF/LA/09

Report Ref. No.: GFL/S/R/22/03-46

Report Date: 24.03.2022

Analysis Report

Name of the Industry	M/s. Sarex Overseas Limited, MIDC, Tarapur		
Date of Sampling	17.03.2022	Sample Description	ETP Soil Sample
Date of Receipt of Sample	17.03.2022	Sample Volume	1000 gms
Date of Analysis Started	18.03.2022	Sample Collected by	Laboratory
Date of Analysis Completed	24.03.2022	Sample Container	Polythene bag

Sr. No.	Parameters	Unit	GFL/S/22/03-46 Soil Sample	Test Method Used
1.	Bulk Density	kg/m ³	1121.3	Weight by Volume
2.	Moisture content	%	14.61	IS:2720 (Part 02) : 1973
3.	Total Organic Carbon	%	1.14	IS:2720 (Part 22) : 1972
4.	Organic Matter	%	0.50	IS:2720 (Part 22) : 1972
5.	pH	--	8.19	IS:2720 (Part 26) : 1987
6.	Electrical Conductivity(1 :2 Soil: Water Extract)	uS/cm	280	IS:14767 - 2000
7.	Water Holding Capacity	%	51.34	IS 14765:2000 RA-2016
8.	Sodium as Na (Exchangeable)	mg/kg	277.6	Manual for soil testing, DAC- MOA,GOI
9.	Sodium as Na	mg/kg	102	USEPA 3050 B
10.	Potassium as K	mg/kg	29	USEPA 3050 B
11.	Calcium as Ca	mg/ kg	124	USEPA 3050 B
12.	Magnesium as mg	mg/ kg	60	USEPA 3050 B
13.	Sodium Absorption Ratio (SAR)	--	1.10	By Calculation
14.	Boron as B (Available)	mg/ kg	0.83	Manual for soil testing, DAC- MOA,GOI
15.	Cation Exchange Capacity	Meq/100g	38.78	IS 2720(Part-24)1976
16.	Total Nitrogen	mg/ kg	499	IS:14684-1999
17.	Available Phosphorus as P ₂ O ₅	mg/ kg	70.15	Manual for soil testing,DAC- MOA,GOI

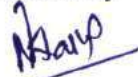
For Goldfinch Engineering Systems Private Limited

Analyzed By




Govt Analyst

Verified By



Lab-Incharge

Approved By

Director-Lab/Govt Analyst
Page 1 of 2

QF/LA/09

Report Ref. No.: GFL/S/R/22/03-46

Report Date: 24.03.2022

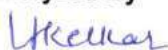
Analysis Report

Name of the Industry	M/s. Sarex Overseas Limited, MIDC, Tarapur		
Date of Sampling	17.03.2022	Sample Description	ETP Soil Sample
Date of Receipt of Sample	17.03.2022	Sample Volume	1000 gms
Date of Analysis Started	18.03.2022	Sample Collected by	Laboratory
Date of Analysis Completed	24.03.2022	Sample Container	Polythene bag

Sr. No.	Parameters	Unit	GFL/S/22/03-46 Soil Sample	Test Method Used
18	Available Potassium as K ₂ O	mg/kg	249	Manual for soil testing, DAC-MOA, GOI
19	Total Phosphorous as P	mg/kg	261.52	Manual for soil testing, DAC-MOA, GOI
20	Copper as Cu	mg/kg	124	USEPA 3050 B
21	Iron as Fe	mg/kg	186	USEPA 3050 B
22	Manganese as Mn	mg/kg	163	USEPA 3050 B
23	Available Manganese as Mn	mg/kg	16	Manual for soil testing, DAC-MOA, GOI
24	Available Iron as Fe	mg/kg	20	Manual for soil testing, DAC-MOA, GOI
25	Available copper as Cu	mg/kg	10	Manual for soil testing, DAC-MOA, GOI
26	Available Zinc as Zn	mg/kg	13	Manual for soil testing, DAC-MOA, GOI

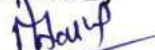
For Goldfinch Engineering Systems Private Limited

Analyzed By



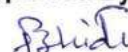
Govt Analyst

Verified By



Lab-Incharge

Approved By



Director-Lab/Govt. Analyst

Page 2 of 2

Annexure – 3

Consent to Establish

MAHARASHTRA POLLUTION CONTROL BOARD

Tel : 2402 0781 / 2401 0437
Fax : 2402 4068
Visit us at :
Website : <http://mpcb.mah.nic.in>
E-mail : mpcb@vsnl.net



Kalpataru Point,
2nd, 3rd & 4th floor,
Opp. Cineplanet,
Near Sion Circle, Sion (E),
Mumbai - 400 022.

Red/LSI

Consent No. BO/RO-TN/PCI-I/RO(P&P)/1644-08/E/CC-363

Date: 29/08/2008

Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management & Handling) Rules 1989 and Amendment Rules. [To be referred as Water Act, Air Act and HW(M&H) Rules respectively].

CONSENT is hereby granted to

M/s. Sarex Overseas
N-129, 130, MIDC Tarapur,
Tal- Palghar, Dist-Thane

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to – Commissioning of the unit.
2. The Consent is valid for the manufacture of –

Sr	Products	Max. Qty.
01	Ven-2 (CG35-1597)	2000 Kg/M
02	TDA	1000 Kg/M
03	Ketoprofen Nitrile	2000 Kg/M

3. CONDITIONS UNDER WATER (PREVENTION & CONTROL OF POLLUTION) ACT, 1974:

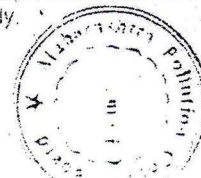
- (i) The daily quantity of trade effluent from the factory shall not exceed 26.0 M³.
- (ii) The daily quantity of sewage effluent from the factory shall not exceed 4.8 M³.

(iii) Trade Effluent :

Treatment : The applicant shall provide comprehensive treatment system consisting of primary/secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards :

1	pH	Between	5.5 to 9
2	Suspended Solids	Not to exceed	100 mg/l
3	BOD 3 days 27 Deg. C	Not to exceed	100 mg/l
4	COD	Not to exceed	250 mg/l
5	Oil & Grease	Not to exceed	10 mg/l

- (iv) **Trade Effluent Disposal :** The treated trade effluent shall be 100% recycled/ reused in the process till CETP becomes functional achieving the prescribed standards.
- (v) **Sewage Effluent Treatment :** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards :
 - (1) Suspended Solids Not to exceed 100 mg/l.
 - (2) BOD 3 days 27 Deg. C. Not to exceed. 100 mg/l.
- (vi) **Sewage Effluent Disposal :** The treated sewage effluent shall be soaked into soak pit which shall be got cleaned periodically. Overflow, if any shall be disposed on land for gardening only.



(vii) Non-Hazardous Solid Wastes : NIL.

(viii) Other conditions :

1. The industry shall monitor effluent quality regularly.
2. The green belt afforestation shall be done minimum up to 33% of the open available land.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and Rules thereunder:

The daily water consumption for the following categories is as under:

i	Domestic	5.0 CMD
ii	Industrial Processing	25.0 CMD
iii	Industrial Cooling / Boiler	10.0 CMD
iv	Agriculture/Gardening	10.0 CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. **CONDITIONS UNDER AIR (PREVENTION & CONTROL OF POLLUTION) ACT, 1981:**

(i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards :

Control Equipment : Air pollution control equipments of sufficient capacity shall be provided to limit the emissions.

Conditions for D.G. Set :-

[1] Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.

[2] Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB(A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB(A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.

[3] The industry shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

[4] Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.

[5] Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

[6] A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

[7] D.G. Set shall be operated only in case of power failure.

[8] The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

Standards for Emissions of Air Pollutants :

1	SPM/TPM	Not to exceed	150 mg/Nm ³
2	SO ₂	Not to exceed	261 Kg/Day
3	Cl ₂	Not to exceed	3 ppm
4	NH ₃	Not to exceed	50 ppm

(ii) The applicant shall observe the following fuel pattern :-

Sr	Fuel Type	Quantity
01	FO	120 Lit/Hour
02	HSD (For DG Set)	100 Lit/M



- (iii) The applicant shall erect the chimney(s) of the following specifications :-

Sr.	Chimney attached to	Height in mt.
1	Boiler	30
2	D.G set (350 KVA)	3.75 (above the bldg. on which it is installed)

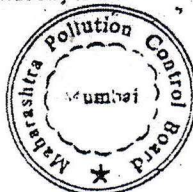
- (iv) The applicant shall provide ports in the chimney(s) and facilitates such as ladder, platform etc. For monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. And these shall be painted / displayed to facilitate identification.
- (v) The industry shall take adequate measures for control for noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. And 10 p.m. And night time is reckoned between 10 p.m. And 6 p.m.
- (vi) Other Conditions :
- 1) The industry should not cause any nuisance in surrounding area.
 - 2) The industry should monitor stack emissions and ambient air quality regularly.

6. **CONDITIONS UNDER HW (M&H) RULES, 1989 & AMENDMENT RULES :**

The applicant shall handle hazardous wastes as specified below:

Sl.	Item No (Sch-I)	Type of Waste	Quantity	Disposal
01	20.3	Distillation residues	700 Kg/M	CHWTSDF
02	34.3	ETP Sludge	20 Kg/Day	CHWTSDF

7. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
8. The applicant shall obtain Consent to Operate before actual commencement of the production activity.
9. The applicant should not take any effective steps for implementation of the project before obtaining Environment Clearance from State Government as per EIA Notification, 2006 and amendments thereto.
10. The consent is issued pursuant to undertaking submitted by industry dtd. 27/08/2008 on Rs. 100 stamp paper regarding industry will achieve Zero Discharge by recycling their treated effluent in their process and for floor washing purpose in their plant, till CETP becomes functional achieving the prescribed standards.
11. The applicant shall comply with the conditions as stipulated under Annexure - I enclosed.
12. This consent shall not be construed as exemption from obtaining necessary NOC from any other Government agencies as may deemed fit necessary.
13. If CETP does not work for achieving standards and problem of pollution occurs, industry shall voluntarily stop the production or total effluent shall be reused.
14. The Capital investment of the industry is Rs. 19 Cr.



Sd/-
(Sanjay Khandare)
Member Secretary

(Signature)
(V. B. Waghjale)
Regional Officer (P & P)

To
M/s. Sarex Overseas, N-129,130; MIDC Tarapur, Tal- Palghar, Dist-Thane.

Copy to: RO-Thane /SRO-Tarapur-I / CAO / Cess Branch / Master File

Received Consent fee of -	Amount	D.D.No.	Date	Drawn on
	Rs. 40,000/-	102009	23.04.08	ICICI Bank
	Rs. 10,000/-	102048	14.05.08	ICICI Bank

Annexure – 4

Current valid CTO

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: <http://mpcb.gov.in>
Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd and
4th floor, Opp. Cine Planet
Cinema, Near Sion Circle,
Sion (E), Mumbai-400022

RED/L.S.I

No:- Format 1.0/CC/UAN No.0000003528/CC-2005000009

Date: 08/05/2020

To,

SAREX OVERSEAS

(A DIVISION OF SARAF CHEMICALS PVT. LTD.)

PLOT NO. N-129,130,131, & N-132, M.I.D.C., TARAPUR,

Tal and Dist:- Palghar.

Sub: Ammendment in existng Consent to Operate in RED/LSI category.

- Ref:**
1. Consent to Operate accorded by Board vide No. Format 1.0/BO/AS(T)/UAN No-0000038738/R/CC-1805001935 dtd 31.05.2018 which is valid up to 28.02.2023.
 2. Your Application : - MPCB-CONSENT_AMMENDMENT-0000003528 & MPCB-CONSENT_AMMENDMENT-0000004251 on dtd. 21.09.2019 & 05.02.2020.
 3. Minutes of the 15th Consent Committee meeting dtd. 20.03.2020

Your application No.MPCB-CONSENT_AMMENDMENT-0000003528 Dated 21.09.2019

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. The consent to renewal is granted for a period up to 28/02/2023
2. The capital investment of the project is Rs.57.4401 Crs. (As per C.A Certificate submitted by industry)
3. Consent is valid for the manufacture of:

Sr No	Product	Maximum Quantity	UOM
Products			
1	Ven-2(CG-35-1597)	10	MT/M
2	TDA	0.5	MT/M
3	Ketoprofen Nitrile	3	MT/M
4	Alpha Chloralose	0.2	MT/M
5	Methyl 4 Bromocrotonate	0.5	MT/M
6	2,5 Dibromopyridine	0.5	MT/M
7	Amino Diphenyl Methane	2	MT/M
8	ST-222	1	MT/M

Sr No	Product	Maximum Quantity	UOM
9	5-Chloro-2 Nitro Diphenyl Amine	0.25	MT/M
10	Diphenic Acid	0.5	MT/M
11	3,5-Dinitro Aniline	1	MT/M
12	Benzophenone Lmine	0.5	MT/M
13	4-Bromo 2-Fluoro Biphenyl	1.5	MT/M
14	Pyridinium Para Toulene Sulphonate	0.5	MT/M
15	5-Ethyl Pyridine-2 Ethanol	4	MT/M
16	NCHQ	0.5	MT/M
17	Mercaptan thiol	5	MT/M
18	Anthranilamide	0.5	MT/M
19	DPDS	0.2	MT/M
20	2,4 Thiozoldindion	1.8	MT/M
21	Glycenate (N,N-Diphenyl Methylene Glycene Ethyl Easter)	0.2	MT/M
22	Diphenyl Methane	0.25	MT/M
23	DDH	5	MT/M
24	Other organic Hydrocarbons	14.55	MT/M
25	Other Trizene Products	2	MT/M
26	Oxalyl Chloride	3	MT/M
27	Other Halogen Organic Compound [Poly Aluminium Chloride (100% Basis) Equivalent to the 52.7 MT/M (10 % To 11 % Poly Aluminum Chloride)]	5.8	MT/M
28	3-Iodoaniline	1	MT/M
29	Other Amino Compounds	7.75	MT/M
30	1Phenyl-1 Cyclopentane Carboxylic Acid	1	MT/M
31	Homophalic Acid	0.5	MT/M
32	Other organic carboxylic Acid compounds	5	MT/M
33	Total (Sr. 1 to 32)	80	MT/M
34	Textile Chemicals	0	MT/M
	(i) Sarasoft-1	20	MT/M
	(ii) Macrosoft	5	MT/M
	(iii) NFO-CNX	5	MT/M
	(iv) Polybounce	5	MT/M
	(v) Sarasoft-485	8	MT/M
	(vi) Saradye-FN	20	MT/M
	(vii) Fixanocol Conc	9	MT/M
	(viii) Other textile chemicals	58	MT/M

Sr No	Product	Maximum Quantity	UOM
35	Total (Textile Chemicals at Sr. No 34)	130	MT/M

[Total Product quantity of Sr. 1 to 32 shall not exceed the -80.00 MT/M and the Textile Chemicals at Sr. No. 33 shall not exceed the 130 MT/M. Also, Poly Aluminium Chloride at Sr. No. 27 shall be sale to to actual user having permission under Rule-9 of Hazardous and Other Waste (M & T M), 2016]

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent *	51.0	As per Schedule -I	Recycle 26.0 CMD treated effluent into process and remaining 25 CMD shall be send to CETP.
2.	Domestic effluent	12.8	As per Schedule -I	Soaked in soak pit

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	S-1	Boiler-I (2 TPH)	1	As per Schedule -II
2	S-2	Boiler-II (6 TPH)	1	As per Schedule -II
3	S-3	D.G. Set-I (500 KVA)	1	As per Schedule -II
4	S-4	D.G. Set-I (380 KVA)	1	As per Schedule -II
5	S-5	Process Stack	1	As per Schedule -II
6	S-6	Process Stack	1	As per Schedule -II
7	S-7	Process Stack	1	As per Schedule -II
8	S-8	Process Stack	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	EMPTY DRUMS	20	No/M	SALE AFTER DECONTAMINATION	SALE AFTER DECONTAMINATION

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
1	20.2 Spent solvents	500	MT/M	Recycle*/Reuse	REUSE IN OWN PROCESS OR SALE TO AUTHORISED PARTY/CHWTSDF
2	20.3 Distillation residues	10	MT/M	Incineration	CHWTSDF
3	20.4 Process Sludge	3	MT/M	Incineration	CHWTSDF

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
4	35.3 Chemical sludge from waste water treatment	20	MT/M	Landfil	CHWTSDf
5	33.1 Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	300	No/M	Recycle*	Sale to authorized recycler/CHWTSDf
6	33.3 Discarded containers / barrels / liner	1	MT/M	Incineration	CHWTSDf

(* - The applicant shall ensure disposal to actual user having permission under Rule-9 of Hazardous and Other Waste (M & T M), 2016)

- 8 The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
- 9 This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- 10 This consent is issued with overriding effect on earlier Consent to Establish/Operate granted by the Board vide no. Consent No. Format 1.0/BO/AS(T)/UAN No-0000038738/R/CC-1805001935 dtd 31.05.2018 which is valid up to 28.02.2023.
- 11 This Consent is issued subject to an order passed or may be passed by Hon'ble NGT Order dtd. 23.08.2019 in the Matter of O.A. No 1038/2018.
- 12 This consent is issued as per the certificate obtained from ICT, Matunga dtd. 04.02.2020, clarifies that, the Aluminium Chloride does not participate in the reactions but it is a mere catalyst and after the reaction is done, it generates Aluminium Chloride (10 to 11 %, which contains 88 % to 90 % water, which is appeared as consented product at Sr. no 27 as other halogen organic compound.
- 13 The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)
- 14 This consent is issued pursuant to the decision of the 15th Consent Appraisal Committee Meeting held on 20.03.2020

For and on behalf of the
Maharashtra Pollution Control Board.

(E. Ravendiran IAS),
Member Secretary

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	500000.00	TXN1712002415	28/12/2017	Online Payment
2	50000.00	TXN1801002174	18/01/2018	Online Payment

Copy to:

1. Regional Officer, MPCB, Thane and Sub-Regional Officer, MPCB, Tarapur I
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1. A) As per your application, you have provided Effluent Treatment Plant (ETP) of designed capacity of 130.00 CMD consisting of Primary (Collection tank, Neutralization tank, Equalization tank, Flash mixer, Primary Clarifier/Primary Settling Tank), Secondary (Activated sludge process), Tertiary (Pressure sand filter, Activated carbon filter)
- B) The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent:

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
Compulsory parameters		
(1)	pH	5.5 to 8.5
(2)	Oil & Grease	10 mg/l
(3)	BOD (3 days 27°C)	30 mg/l
(4)	Total Suspended solids	100 mg/l
(5)	Total Dissolved solids	2100 mg/l
Additional Parameters		
(6)	COD	250 mg/l
(7)	Chlorides	600 mg/l
(8)	Sulphates	1000 mg/l
(9)	Zinc	5.0 mg/l
(10)	Iron	3.0 mg/l
(11)	% Sodium	60%

- C) The treated industrial effluent shall be recycled for secondary purposes to the maximum extent and remaining shall be send to CETP for further treatment and disposal. In no case, treated effluent shall find its way outside factory premises.
2. A) As per your application, you have provided Septic Tank followed by Soak pit for the treatment of 12.8 CMD of sewage.
- B) The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

1	BOD 3 days 27°C	Not to exceed	30 mg/l
2	Suspended Solids	Not to exceed	100 mg/l

- C) The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise. In no case, sewage shall find its way outside factory premises.

3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	25.00
2.	Domestic purpose	15.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	80.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	30

The water used for gardening should be Treated effluent/Sewage.

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of BP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.



SCHEDULE-II**Terms & conditions for compliance of Air Pollution Control:**

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO ₂ (kg/day)
S-1	Boiler-I (2 TPH)	Stack	32	FO	160 Ltr/Hr	4.50	--
S-2	Boiler-II (6 TPH)	Stack	32	FO	160 Ltr/Hr	4.50	--
S-3	D.G.SET-I (500 KVA)	Acoustic Enclosure	3.0*	HSD	50 Ltr/Hr	1.00	24.00
S-4	D.G.SET-I (380 KVA)	Acoustic Enclosure	3.0*	HSD	30 Ltr/Hr	1.00	14.40
S-5	Process Stack	Alkali Scrubber	20	--	--	--	--
S-6	Process Stack	Alkali Scrubber	20	-	--	--	--
S-7	Process Stack	Alkali Scrubber	20	-	--	--	--
S-8	Process Stack	Chlorine	20	-	--	--	--

(*Above roof level)

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Total Particulate Matter	Not to exceed	150.0 mg/Nm ³
Acid Mist /HCl	Not to exceed	35.0 mg/Nm ³
NO _x / SO ₂ (Process)	Not to exceed	50 ppm
Chlorine	Not to exceed	15 mg/Nm ³

4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).



SCHEDULE-III
Details of Bank Guarantees:

Sr. No.	Consent(C2E/C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	Consent to Operate	Rs. 5.0 Lakh	Existing	Towards O&M of Pollution Control Systems	28.02.2023	30.06.2023
2	Consent to Operate	Rs. 5.0 Lakh	Existing	Provision of Online monitoring system at ETP outlet along with lock and key arrangement and strictly adhere to net treated effluent discharge to CETP as per consented quantity 25 CMD	28.02.2023	30.06.2023

** The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent.
Existing BG obtained for above purpose if any may be extended for period of validity as above.

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG Imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details


Srno.	Consent (C2E/C2O/C2R)	BG Imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV
General Conditions:

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
 - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. 8-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.

12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. The PP shall provide personal protection equipment as per norms of Factory Act
14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and Industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.



26. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
 27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
 28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
 29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
 30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
 31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
 32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
 33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 

Annexure – 5

Photographs of the rainwater harvesting tank

RAIN WATER HARVESTING

We have done rain water harvesting system to collect the rain water for use.

1. We are collecting the rain water form QC Lab terrace (Area 20 x 20Mtr) for reusing it.
2. We are collecting the rain water form Finishing Plant terrace (Area 14 x 15.8 Mtr) for reusing it.
3. During Rainy season about 10KL water / Day we are colleting from rain water with the help of this rain water harvesting facitly.
4. We are using the collected rain water for flushing, in utility for cooling tower and boiler etc.

Terrace Piping From Drying & Packing Building



Terrace Piping From Quality Control Building



Piping From Quality Control Building And Drying Packing Building To Under
Ground Water Storage Tank

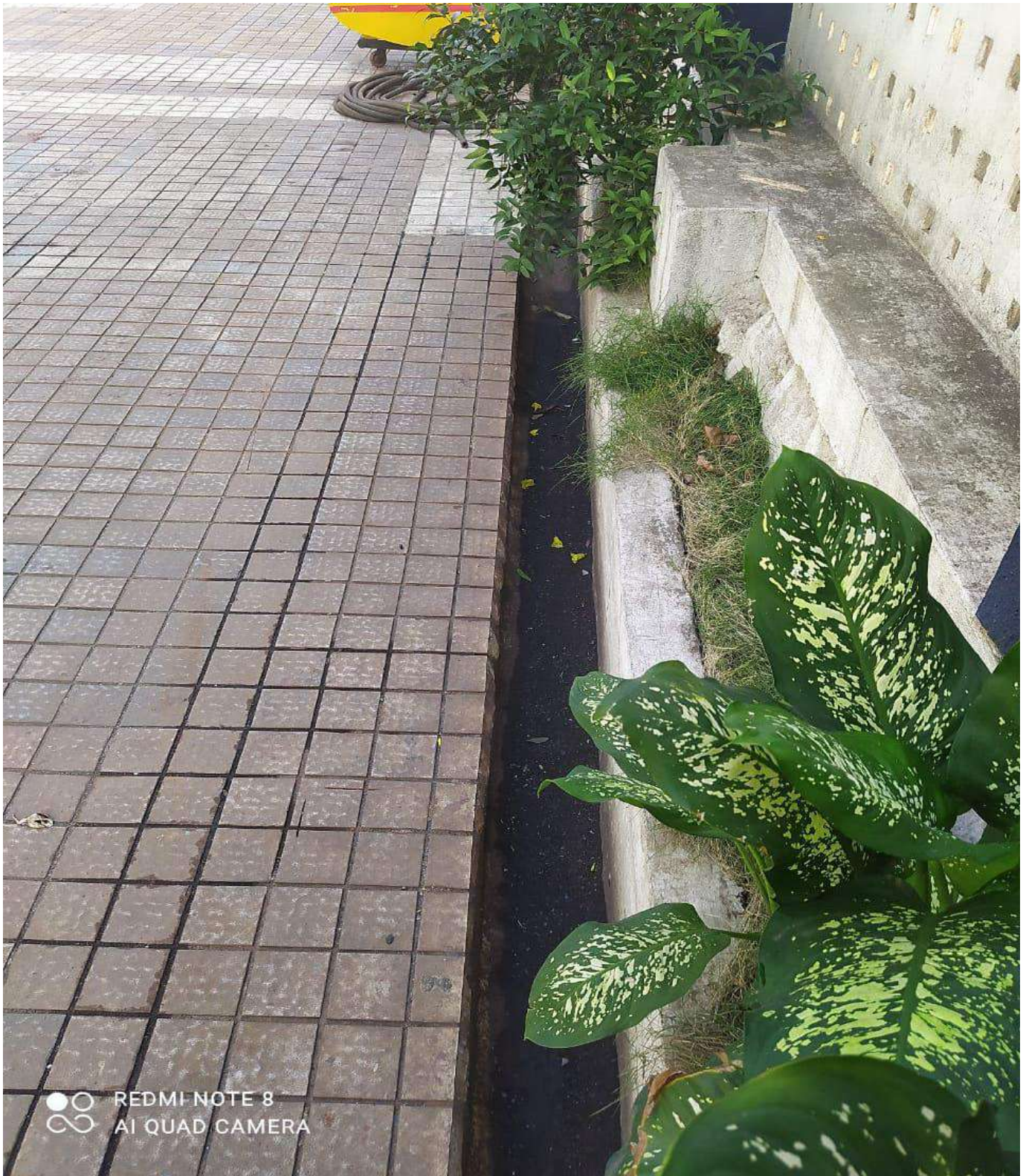


----- The End -----

Annexure – 6

**Photographs of the separate
storm-water drain and the
effluent drain.**

Strom-Water Drain



Waste-Water Drain



Annexure – 7

Water supply agreement with competent authority



Nº 000508

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of India Undertaking)
(A Government of Maharashtra Undertaking)

WATER SUPPLY

AGREEMENT FORM

ISSUED TO : **Sarex Overseas**
(A Division of Saraf Chemicals Ltd.)
N-129 to N-132, M.I.D.C. Tarapur,
Boisar, Dist. Thane,
Maharashtra-401 506

ADDRESS : **Sarex Overseas**
(A Division of Saraf Chemicals Ltd.)
N-129 to N-132, M.I.D.C. Tarapur,
Boisar, Dist. Thane,
Maharashtra-401 506

AREA : 8400 Sq. Meter

PLOT NO. : N-129 to N-132

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

WATER SUPPLY REGULATION - 1973

To,
The Executive Engineer,
MIDC Division No. 1, Thane.

Sub :- TARPPUR Industrial Area
Application for water supply connection.
Water supply connection to Plot / Shed
No. N-129 to N-132

Sir,

I have been allotted Plot No. / Shed No. N-129 to N-132
in Tarapur Industrial Area vide letter No. ROT/TAP/N-129 to N-132/1201
My requirement of water is 80 mm m³ / day.
I am enclosing the following documents so that water supply connection can be considered by you.

- 1) Xerox Copy of Lease Agreement.
- 2) Xerox Copy of Possession Receipt.
- 3) Xerox Copy of Possession Plan.
- 4) Xerox Copy of letter of approved building plans.
- 5) Water supply agreement in triplicate.
- 6) Water supply connection plan signed by me, licensed architect / licensed plumber in triplicate.
- 7) The consent from Maharashtra Pollution Control Board.
- 8) Xerox Copy of No Objection Certificate of MIDC issued by Chief Executive Officer, MIDC, Mumbai-93.
- 9) I am also ready to get the drainage plans prepared by licensed architect and get them approved from your office within a period of three months from the date of this letter.

Thanking you,

Yours faithfully,
Sarex Overseas
(A division of Sarex Chemicals Ltd.)

AUTHORISED SIGNATORY
Signature with
Rubber Stamp

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

WATER SUPPLY REGULATION - 1973

To,
The Executive Engineer,
MIDC Division No. 1, Thane.

Sub :- TARPPUR Industrial Area
Application for water supply connection.
Water supply connection to Plot / Shed
No. N-129 to N-132

Sir,

I have been allotted Plot No. / Shed No. N-129 to N-132
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- 8) Xerox Copy of No Objection Certificate of MIDC issued by Chief Executive Officer, MIDC, Mumbai-93.
- 9) I am also ready to get the drainage plans prepared by licensed architect and get them approved from your office within a period of three months from the date of this letter.

Thanking you,

Yours faithfully,
Sarex Overseas
(A division of Sarex Chemicals Ltd.)

AUTHORISED SIGNATORY
Signature with
Rubber Stamp

(2)

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

WATER CONNECTION

- 1) Applicants Full Name : Sarex Overseas
- 2) Applicants Full Address : (A Division of Saraf Chemicals Ltd.)
N-129 to N-132, MIDC, Tarapur,
Borisar, Dist. Thane,
Maharashtra-401 506
- 3) Plot No. & Block where connection is required : N-131
- 4) Area of Plot : 8400 Sq. Mtrs
- 5) Whether applicant is the owner of the plot or his representative. : Naresh Salgiya
- 6) Owner's full Name & Address : Ashok Mehariprasad Saraf
Taku, Worli, Mumbai
- 7) Date of Possession : 23/5/1988
- 8) Date on which the plans are approved by the Ex. Engineer, MIDC Dn. : 30/05/2008
- 9) Size of connection required : 80 mm
- 10) Daily requirement of water in litres : 330 Cu. Meter
- 11) Required connection domestic / non-domestic : Non Domestic
- 12) Future Demand : 100 mm
- 13) No. of Person to be employed : 102
- 14) Nature of Production : Speciality chemicals, organic Intermediates
& pharmaceutical Ingredients
- 15) What arrangements you are going to provide for disposal of Industrial & domestic effluent (Septic tank, Soak Pit, Effluent Treatment Plant etc.) : TEPS
- 16) Details of Internal water supply in the plot Sump / Pump etc. If you are going to provide : -
- 17) Additional Information : -
- 18) Date of Application : 01/04/2009

Sarex Overseas
(A division of Saraf Chemicals Ltd.)

Signature with
Rubber Stamp

AUTHORISED SIGNATORY

Deputy Engineer,

MIDC Tarapur Maintenance Sub. Div.,
Tarapur.

Executive Engineer
MIDC Division No. 1, Thane

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

An agreement made on the _____ day of the month of _____ Two Thousand _____ between MIDC on the one hand and Shri M/s. _____

(hereinafter called a consumer which expression shall unless it is excluded by of repugnant to the context include any person holding a power of attorney to conduct the business on behalf of the consumer) on the other hand.

Whereas the consumer on or about the _____ day of the month of _____ Two Thousand _____ applied to the Executive Engineer, MIDC Dn.

(hereinafter referred to as Executive Engineer) for permission to supply water for the purpose of construction of Factory Building and/or for the regular requirement of water for the Factory on Plot No. _____ in a _____ Industrial Area premises along road in village on water supply scheme.

And whereas the Executive Engineer has agreed to grant such permission hereinafter mentioned.

Now this indenture witnessable that in consideration of the conditions hereinafter contained and on the part of the consumer to be performed that Executive Engineer hereby grants to the consumer permission to draw water on the following conditions :

1. The consumer shall pay in advance a sum of Rs. _____ (Rupees _____ only) towards the water charges for three months for the quantity applied at the current rates as a standing security deposit with MIDC which will bear a simple interest of 5% p.a.
2. The consumer shall abide by all the terms & conditions of the MIDC water supply regulations 1973 as amended from time which are attached to this agreement.
3. The consumer shall take care of the water meter and see that it is in working condition at all the times. If the meter is found out of order at the time of reading the assessment will be charged as under :

This date from which the meter has gone out of order will be arrived at on the basis of average consumption per day calculated on the basis of consumption of last month's for all working days.

The assessment for the said period will be charged on the basis of last 3 full months average or the last month's assessment, or the subsequent three months assessment for the immediately after the meter is put in working condition or the last year's assessment for the corresponding period whichever is higher. The penalties as per regulation No. 24 from the 3rd to 6th months will be charged on the basis of the first two months bill. If the water bill is charged incorrectly will be revised at any time later and the consumer will be liable to pay charges as revised. Water meter shall be provided within 3 months from the connection point.

4. If the meter goes out of order frequently the assessment will be charged at the discretion of the Executive Engineer after referring the case to the Superintending Engineer whose decision will be final and binding on the consumer.
5. The consumer shall pay the monthly water charges as per bill within 15 days from the date of the bill and will be allowed a further grace period of one month charging interest @ 17.52% p.a. If the bill alongwith previous arrears is not paid fully before the expiry of this grace period, the consumer's water supply will be liable for disconnection and the interest will be continued to be charged until the arrears are paid fully.

Sarex Overseas
(A division of Sarex Chemicals Ltd.)

Signature with
Rubber Stamp

AUTHORISED SIGNATORY

Deputy Engineer,
MIDC Tarapur Maintenance Sub. Engg.
Tarapur.

(4)

6. In case of payment by cheque, the date of payment will be the actual date of realisation of the cheque and not the date of cheque. Any in payment of charges or other delay penalties as a result of this delay in realisation of the cheque will have to be paid by the consumer.
7. The payment of water charges by cheque will be made in favour of the Bank with which the office of Dy. Engineer, MIDC of the local area is having account. In all other cases the bank commission charges will be borne by the consumer.
8. The consumer shall pay the water bill at the rates of MIDC as may be amended from time to time. Any upward revision of rates will be given after one month's notice to the consumer.
9. The arrears of water charges are liable to be recovered from the consumer as arrears of land revenue through the Collector if they are not paid in time.
10. The consumer shall bear the cost of preparation, stamping and execution of this agreement.

In witness where of the Executive Engineer for and on behalf of the MIDC hath set his hand and the seal of his office ere to and Shri hath herein to set his hand the day, month and year first above written.

Signed & Delivered by Shri V. B. Targe the Executive Engineer, MIDC, Divn. Thane in presence of _____

1) Shri R. R. Kavale Dy. Engr.

2) Shri _____

Signed, Sealed & Delivered by Shri Naresh Lalgiya in

1) Shri G. N. Kadu

2) Shri Yashendra Srivastava

Sarex Overseas
(A division of Saraf Chemicals Ltd.)

AUTHORISED SIGNATORY
Signature with Rubber Stamp

Seal / Registered Address

Sarex Overseas

(A Division of Saraf Chemicals Ltd.)

N-129 to N-132, M.I.D.C. Tarapur,

Boisar, Dist. Thane,

Maharashtra-401 506

Annexure :- MIDC Water Supply

Regulation 1973

Deputy Engineer,
MIDC Tarapur Maintenance Sub. Div.
Tarapur.

Executive Engineer
MIDC Division No. 1, Thane

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A GOVERNMENT OF MAHARASHTRA UNDERTAKING)

WATER SUPPLY REGULATION - 1973 Sarex Overseas

(A Division of Saraf Chemicals Ltd.)

N-129 to N-132, M.I.D.C. Tarapur,

MIDC Plot No. Boisar, Dist. Thane,

Phase Maharashtra-401 506

Ind. Area.

Spl.
Adhesive
Stamp

Special Adhesive Stamp of Rs. 20/- shall be affixed from the stamp supdt. office, Gr. Floor, Town Hall, Ballard Estate, Bombay or Thane Treasury office, Thane.

1. Shri / M/s. _____ Preamble
2. In these regulation unless the context otherwise requires :
 - 1) Definition : Consumer shall mean any person or persons applied for applying for supply of water from any works of the Corporation or any person or persons otherwise liable for payment of water charges.
 - 2) Corporation shall mean the Maharashtra Industrial Development Corporation constituted under the Maharashtra Industrial Development Act, 1961 (Mah. III of 1962).
 - 3) The Chief Engineer, The Superintending Engineer & The Executive Engineer shall mean the Chief Engineer, Superintending Engineer and the Executive Engineer appointed by the Corporation.
 - 4) Communication pipe shall mean & refer to the pipe which extends from the Corporation's main upto valve nearest the Corporation main.
 - 5) Supply pipe shall mean and refer to the pipe which extends from the Corporation stopcock or sluice valve upto the ball cock of the storage tank, if any and any consumer's pipe subject to the water pressure from the Corporation's main.
 - 6) Distribution pipe shall mean and referred by consumer's pipe which is not subject to water pressure from the Corporation Main.
 - 7) Corporation stopcock or sluice valve shall mean and refer to the stopcock or the sluice valve on the communication pipe nearest the Corporation main controlling the supply of water from any Corporation separately with the water charges.
 - 8) Consumer's pipes and consumer's fittings shall include and refer to all pipes & fittings respectively used in connection with the supply of water from Corporation's water works which are not the property of the Corporation.
 - 9) The terms and expressions used in section 2 of the Maharashtra Industrial Development Act, 1961 (Mah-III of 1962) shall have the same meaning in so far as the interpretation of these Regulations are concerned.
3. Application for Supply : Before commencing the laying, alteration or extension of any consumer's pipe or otherwise the consumer shall fill up, sign and deliver in the office of the Executive Engineer in charge of the area, the form prescribed in Schedule 'A' attached to these regulations.
4. Connection to Mains : All consumer's pipes and fittings shall be laid in accordance with the terms prescribed by the Executive Engineer and shall be perfectly sound and water tight before the water supply is commissioned. Water will not be supplied to any factory or premises so long as such non-compliance remains.
5. Alteration or Removal of Consumer's Pipes & Fittings : No Consumer's pipes shall be removed, altered or extended except in accordance with these regulations.
6. Prevention of Waste or Misuse of Water : Every consumer shall prevent waste & misuse of water of the corporation.

Sarex Overseas
(A division of Saraf Chemicals Ltd.)

Signature with
Rubber Stamp

AUTHORISED SIGNATORY

Deputy Engineer,

MIDC Tarapur Maintenance S&S Div
Tarapur.

Proper Officer
Sub Registrar Palghar
Dist. Thane

SUB REGISTRAR,
PALGHAR

D-5/F/M/C R. NO 70/1528/07

12676
188904
MAR 30 2009
SPECIAL TREASURY
ADHESIVE
R00000100 P81052
MAHARASHTRA

7. **Communication pipe to be laid or removed by the Corporation :** Communication pipes and fittings which include ferrule G.I. Pipes & specials fittings, materials for jointing etc. or any other type of fittings & accessories upto ferrule or stopcock approved by the Executive Engineer shall be provided by the consumer at his cost. Laying of communication pipe up to the boundry of the consumer's plot will have to be done by the consumer through a licensed plumber under the supervision of MIDC's authorised representative over & above this, the consumer will have to pay the connection attachment fee as per provision in clause 20. This will include cost of labour that has to be incurred by MIDC.
8. **Size of communication pipes :** Water supplied to any premises for which water charges are paid or for which water charges are payable shall be supplied through a ferrule & communication pipe of the size specified.
9. **Consumer's Fittings Testings and Approval :** All consumer's fittings of whatever kind shall conform to the particulars prescribed & specifications or to such further standard as may from time to time be prescribed by the Corporation and whether so specified or not shall be submitted for approval to the Executive Engineer before being fixed. All such fittings, shall be maintained, repaired and renewed at the consumer's expense to the satisfaction of Executive Engineer. All consumer's fitting or apparatus used in connection with the water supply of the Corporation shall be got approved by the Executive Engineer.
10. **Consumer's Pipes & Fittings :** All consumer's pipes & fittings shall be provided and laid at the consumer's cost and no consumer shall be entitled to supply of water unless & until such pipes & fittings and the laying & fixing thereof are approved by the Executive Engineer and unless proper drainage arrangements are made for the disposal of waste water and approved by the Executive Engineer.
11. **Erection or water closets to be approved :** No Connection shall be granted for the supply of water to any water closets, latrine or urinal unless its erection is approved by the Executive Engineer & unless sufficient short storage is provided.
12. **Material of consumer's pipe :** All consumer's pipes shall be of lead, galvanised iron / cast iron, brass or copper and shall conform in every respect to the particulars prescribed and specifications as approved by the Executive Engineer. No pipe except such existing pipes as shall be sound and do not permit waste or except when & as otherwise authorised by those rules shall be laid used or fixed in or about any premises for conveyance of or in connection with the water supplied by the Corporation unless such pipe to be as hereafter prescribed.
13. **Joints :** Whenever lead pipes are used, every lead joint thereof shall be of the kind called a plumbing or wiped joint except such existing joints as shall be sound and do not permit waste. All connections between lead & iron pipes shall be made with a brass union.
14. **Method of laying consumer's pipe :** All consumer's pipes shall be laid in the ground & not less than forty nine centimeters below the surface unless laid inside a building and all consumer's pipes shall be so laid or fixed as not be exposed to the heat of the sun not shall any consumer's pipe & fitting be laid in any position or manner which would involve risk or injury to the pipe or fitting or waste or contamination of water. All consumer's pipes hereafter laid or fixed inside any building shall be accessible and not embedded in the plaster, stone or brick work of any wall. In every case the consumer shall carry out the plaster, stone or brick work of any wall. In every case the consumer shall carry out the reasonable requirements of the Executive Engineer to this end. The position at which the connection of the supply pipes to the communication pipe shall be fixed by the Executive Engineer.
15. **Pipes to be laid through drain etc. :** No pipe shall be used for the conveyance of or in connection with water supplied by the Corporation which is laid of fixed through, in or into any drain or any place where the water conveyed through such pipe may be liable to become fouled or where pipe become unsound except where such use is unavoidable. In every such unavoidable case, such pipe shall be passed through an exterior air tight and water tight pipe or jacket of cast iron or other cast iron or other material approved by the Corporation of sufficient length and strength and of such construction as to afford due protection to the water pipe to the satisfaction of the Executive Engineer so as to bring any leakage therefrom within easy observation. Any existing pipe or pipes laid, affixed which do not comply with this i.e. shall be removed unless the written consent of the Executive Engineer obtained for its retention.

Signature with
Rubber Stamp

Sarex Overseas
(A division of Sarex Chemicals Ltd.)

AUTHORISED SIGNATORY

Deputy Engineer,

MIDC Tarapur Maintenance Sub. Div.,
Tarapur.

16. **Position of stopcock on communication pipes :** The stop-cock or sluice valves, with the guard box on the communication pipe shall be placed in a position to be selected by the Executive Engineer. The Corporation shall have exclusive control of this stopcock or sluice valve and to this end require that it will be fitted with a crutch or spindle head of special design to suit a key kept by the Executive Engineer.
17. **Consumer's taps not be fixed in certain places :** No consumer's taps shall be fixed in any courtyard passage or outside any premises, so as to be available for use by the public or any other party without special permission in written from the Executive Engineer. If in the judgement of the Executive Engineer any such tap either directly or indirectly conduct to or be so used or dealt with as to cause waste or misuse of the water of the Corporation, such tap shall be removed by the consumer within 7 days of the receipt of a written order to that Effect from the Executive Engineer.
18. **Character of cisterns & ball cocks :** Every existing cistern, if not sound or efficient or is such as causes waste or is such as can not be efficiently repaired and every future cistern, reservoir or storage tank shall be of the prescribed kind and shall at all times be made and at all times maintained water tight and shall be properly covered with a close fitting dust tight mosquito proof lid fitted with an approved lock and key and shall be provided with a sound and suitable ball cock of the prescribed kind securely fixed to the cistern independently of the supply pipe and set that the ball will not become submerged when the level of the water in the cistern is below the warning pipe or allow the Water to rise to within 2.5 cm. of the lower side of the overflow or warning pipe. A stopcock or sluice valve shall be provided on the outlet pipes of all cisterns and fixed as near the cistern as possible.
19. **Cisterns to be accessible :** Every cistern, reservoir or storage tank hereafter used or fixed in connection with water supplied by the Corporation must be easily accessible and placed in such a position as to admit of through inspection and cleaning, and if placed within the house or building shall have a clear space of not less than two feet between its top & ceiling rafter or roof. No cistern reservoir or storage tank except those supplying closets, latrines or urinals only shall be fixed in any water closet, latrine or urinals or in any place in which injurious gases are likely to be produced and as far as practical shall not be placed immediately over any water closet, latrine or urinal.
20. **Application for water supply connection :** The application for water supply connection must be accompanied with the attachment fees as per schedule given below :

Nearest Diameter of the Size of Connection	Registration Connection Fees
½" (15 mm)	Rs. 200/-
¾" (20 mm)	Rs. 200/-
1" (25mm)	Rs. 200/-
1½" (40mm)	Rs. 200/-

Beyond 1½" or 38mm. size connection, a separate estimate determining the connection fees will be prepared by the Executive Engineer.

Note :- Connection fees is payable every time connection is reconnected is after it is cut off under any of the clauses of this agreement.

The above mentioned fees will also be recovered in advance from the parties in case of reopening water supply after it is cut off for any reasons in addition to the connection fees, charges for reinstatement of the road surface or the MIDC's land should be paid by the consumer as under :

(The road reinstatement or road crossing charges are subject to revision from time to time).

- 1) Soil Rs. 10/- per sq. m.
- 2) W.B.M. Surface Rs. 55/- per sq. m.
- 3) Asphalted surface Rs. 60/- per sq. m. including W.B.M.
- 4) Concrete surface Rs. 70/- per sq. m.

Sarex Overseas
(A division of Saraf Chemicals Ltd.)

Signature with
Rubber Stamp

AUTHORISED SIGNATORY

Deputy Engineer,

Water Maintenance Sub. Div.

21. **Fixing tested water meter :** The consumer shall at his own cost fix the tested meter within his premises over which the water shall be measured. The meter before it is fixed to the connection pipe, shall be tested in a testing laboratory approved by the corporation. The test certificate from the officer in charge of the laboratory shall be produced by the consumer.
- It shall be the duty of the consumer to maintain in good condition the water meter so fixed.
22. **Arrangements for housing meter :** After the water meter is properly fixed on the connection a brick masonry stone masonry or concrete chamber with lockable C.I. or other approved pattern of frame & cover shall be constructed by the consumer. The meter and its coupling on consumer's pipes should be sealed by the consumer in the manner approved by the Executive Engineer and should bear the stamp of the corporation. If at any particular point of time the seal is found to be broken the consumer will be charged a penal rate of 50% of the previous month's water bill over and above the normal bill for the month. The responsibility of maintaining the seal shall squarely rest with the consumer. In special case, Executive Engineer may direct that a lock shall be provided by the consumer's own cost and the keys of this lock will rest with the Executive Engineer or his duly authorised agent. The consumer shall be responsible for safety and maintenance in good order of the meter and the cover in his own premises.
23. **Testing of Water Meter :** If at any time after the installation of the water meter, it is indicated that the meter was running slow, The Executive Engineer shall take action in getting the meter tested for its correctness. In case this test indicates that the meter was running slow, he shall take action in revising the bills suitably with retrospective effect and his decision in the matter shall be final.
24. **Penalty for unmetered water :** If the water meter fixed by the consumer is found to be lost, damaged, unrepared or not in working condition, the consumer shall be charged water charges on the basis of three month's average consumption for the first two months of the meter being not repaired whereafter shall be charged a penalty at the rate of 50 percent of the water charges for next two months and at 100 percent of the water charges for the fifth and sixth months provided that the total period of unmetered supply is not more than six months.
- 24.1 The consumer shall take care of the water meter and see that it is in working condition at all the times. If the meter is found to be out of order at the time of reading the assessment will be charged as under :-
- 24.2 The date from which the meter has gone out of order will be arrived at on the basis of average consumption per day calculated on the basis of average consumption of last month's for all working days.
- 24.3 The assessment for the said period will be charged on the basis of last 3 full months average or the last month's assessment, or the subsequent three months assessment immediately after the meter is put in working condition or the last years' assessment for the corresponding period whichever is higher. The penalties as per regulation No. 24 from the 3rd to 6th months will be charged on the basis of the first two months bill if the water bill is charged incorrectly it will be revised at any time later and the consumer will be liable to pay charges as revised. Water meter shall be provided within 3 m. from the connection point.
25. **Disconnection for unmetered water supply :** If the water supply remains unmetered for more than six months the water supply shall be disconnected after giving seven days notice.
26. **Payment of security deposit for water charges :** The consumer shall deposit with the Ex. Engineer a sum of equivalent to the estimated water charges for the three month's advance as a security deposit against failure of payment of water charges and maintenance of water supply consumed, including the water meter in proper condition and good repair. This will be worked out on the basis of the daily requirement (A) and the current water charges. The amount of deposit shall be suitably increased or decreased if the actual consumption is found to vary from the one quoted at the time of submission of the application.
- 26.(i) The amount of deposit which is to be related to the actual consumption of water shall be suitably increased or decreased from 1st April of the financial year based on average consumption of water for 10 months from 1st April to 31st January of the preceding financial year.

Signature with
Rubber Stamp

Sarex Overseas
(A division of Saraf Chemicals Ltd.)

AUTHORISED SIGNATORY

Deputy Engineer,

MIDC Tarapur Maintenance Sub. Div.,
Tarapur

- 26.(II) On the deposit collected as above simple interest at 5% per annum shall be allowed at the end of every year by giving proportionate credit in the water charges bill for the months of March.

Note : Deposit paid on or before the 5th of a month shall only qualify for payment of interest for that month in a year.

- 26.(III) The maximum amount of deposit will be limited to Rs. 5 lakhs (Rupees Five Lakhs) where the consumer's deposit is likely to be exceeded Rs. 5 lakhs. However the power is vested with the Engineer, MIDC to recover the security deposit in excess of Rs. 5 Lakhs whose the amount of water bills for three months is more than Rs. 5 Lakhs and whose payment of bills are not found to be regular.
27. **Water Rate :** The charges for water shall be fixed by the Corporation from time to time. The Corporation shall increase or decrease the water charges in its discretion after giving notice of one month to the consumer. The rates of water charges so fixed or altered shall be conclusive and be binding on the consumers.
28. **Arrears to be recovered as arrears of Land Revenue :** The arrears on account of water charges or any other expenses incurred by the Corporation in connection water supply to the consumer shall be recoverable as arrears of land revenue. It shall also be open to the corporation to disconnect water supply for to comply with these regulations.
29. **Detachment Fees :** In case the consumer wants the water supply to be closed, he shall have to make an application in this regard to the Executive Engineer alongwith the detachment fee, which should be 50 percent of the fees mentioned in the table under Regulations 20-A. Minimum notice of 10 days must be given to the Executive Engineer in this case.
30. **Shortage of water :** While the Corporation will endeavour to supply full quantity of water required by consumer it does not bind itself to supply water to the extent of booked demand for reasons beyond the control of the Corporation such as shortage of water at source, damage to the conveyance system failure of Power etc. in order to take into accounts such non-water supply periods, consumer shall provide their own storage equal to their requirement of 24 hours in their premises.
31. **Boosters not allowed :** In no case shall direct boosting be allowed on the Corporation mains or on the connections.
32. **Supply Pressure not Guaranteed :** Water supply at pressures is not guaranteed. The Corporation would however make arrangements that the water is delivered at the average ground level of the plot of consumers and that a day's requirement of water would be normally made with at this level.
33. **Hours of water supply :** The hours of water supply to the consumer shall be regulated by the Executive Engineer.
34. **Quality of water :** The Corporation would normally supply potable water.
35. **Bills for water charges :** The bills on account of water charges, as far as possible will be presented in the first week of every month for the water consumed in the proceeding month. The consumer shall pay the bill in full within 15 days from the date of issue of the bill to the Executive Engineer. The payment of bills shall not be withheld on any account.
36. **Failure to pay bills :** In case of failure on the part of the consumer to pay his bill within 15 days from the date of its presentation, interest at 18% per annum shall be charged to him from the 16th day onwards upto a further period of one month. If the consumer fails to pay the bill alongwith the interest payable within a grace period of one month stated herein above, water connection shall be severed.

Sarex Overseas
(A division of Sarex Chemicals Ltd.)

AUTHORISED SIGNATORY

Signature with
Rubber Stamp

Signature
MIDC Tarapur Maintenance Sub. Div.
Tarapur.

37. **Correction of bills :** If the consumer disputes the contents of the bills he shall first pay the bill under protest and then lodge a complaint. The consumer shall be liable to action under clause 36 above if he refuses to make payment of the bill on grounds of any disputes whatever on the bill furnished to him by the Executive Engineer.
38. **Subletting or renting out connection :** In case the consumer is allowed by the Corporation to sublet or rent out his premises, he shall produce such letter to the Executive Engineer and furnished in writing details of the parties to whom it is sublet. In case there are any arrears recoverable from the consumer the arrears shall be cleared by the consumer before subletting or renting out the premises to any other party.
39. **Penalty for excess use of water :** A) In areas where supply quotas are fixed penal charges for excess consumption of water over and above the quota fixed shall be charged as below.
- a) When the consumption of water is known to exceed the allowable consumption the penalty will be charged on the entire excess consumption at double the normal MIDC rates. In case the excess continues beyond a period of 30 days from the date noting the first excess, the connection would be severed after giving 10 days notice to the consumer.
- Note :** 1) Although the quota fixed will be for quantity per day, the counting period will be month of billing on which the average quantity per day consumed during the billed months should not exceed the quota fixed.
- b) In case when meters are lost, damage removed or out of order, the gap will be settled according to regulation 24 and the penalty will be charged for the excess consumption.
 - c) In case of fire in a industry, water used for fire fighting will be worked out and no penalty shall be charged on this quantity.
- 39.B) Where a fixed quantity of bulk supply is from Govt. A Municipality or any local authority & where beyond a fixed quota the bulk supplier levies or would levy penal charge for consumption in excess of the fixed quota, these penal charges would be passed on to the (Retail) consumers proportionally and after taking into account the transmission losses, establishment charges etc.
40. **Disconnection of water supply :** The Executive Engineer shall disconnect the service pipe in any of the following events, after giving a written notice to that effect and act after 10 days of date of such notice received by the consumer.
- a) In default of payment of water charges including the delayed payment charges.
 - b) In case unmetered water supply continues beyond six months.
 - c) In case of consumption of water supply in excess of fixed limits (Regulation 39).
 - d) If any leakages or defects in the water supply arrangements within the premises of the consumer are likely to cause losses to the Corporation.
 - e) If the consumer allows water to run to waste and does not carry out the repairs within seven days of receipt of written letter from Executive Engineer in this behalf.
 - f) In case of refusal, allow the Executive Engineer or any authorised agents of the Corporation to enter on premises for purpose of inspection of water supply.

Sarex Overseas
(A division of Saraf Chemicals Ltd.)


AUTHORISED SIGNATORY

Signature with
Rubber Stamp


Director, Maharashtra
Water Department, Mumbai
Sarex Overseas, Mumbai

- g) If the consumers fails to provide suitable arrangement to the satisfaction of the Executive Engineer for the proper disposal of waste water which is likely to cause insanitary and injurious conditions.
- h) If it is noticed that attempt has been made to temper with the meter or the supply connection.
- i) In case of breach of any of the rules contained herein.
41. Case of marginal adjustments in these regulations, involving an amount upto Rs. 100/- per consumer may be determined at the discretion of the Executive Engineer. Such cases involving an amount upto Rs. 1000/- per consumer may be determined at the discretion of the Superintending Engineer.
42. For disputes arising out of the interpretation or otherwise of these regulations the decision of the Chief Engineer, MIDC shall be final and binding on the consumer.
43. **Modification of the regulation :** The Corporation shall have the power to add, to amend, vary or rescind any provision of these regulations, from time to time as it may deem fit provided the main purposes of the Regulation are not prejudicially affected.

We the undersigned solemnly promise to abide the rules laid down as above by the Maharashtra Industrial Development Corporation.


Sarex Overseas
(A Division of Saraf Chemicals Ltd.)
N-129 to N-132, M.I.D.C. Tarapur,
Boisar, Dist. Thane,
Maharashtra-401 506
Seal of company/Registered Address


Sarex Overseas
(A division of Saraf Chemicals Ltd.)

AUTHORISED SIGNATORY
Signature of Applicant
with Rubber Stamp

Connection of size 80 ~~50, 15, 4, 15~~ mm dia by providing 80 mm mm dia
water meter sanctioned subject to Regulations and provisions there in all respects.

This agreement signed, accepted and sealed in my presence on this day _____
of _____ 2009.


MIDC Tarapur Maharashtra Dist. Thane
Tarapur.


Executive Engineer
MIDC Division

SCHEDULE "A"

I/We undersigned hereby apply to the Executive Engineer, Maharashtra Industrial Development Corporation. Division Tarapur to supply water at the premises and for the purpose described below and agree to pay such charges as the Corporation may charge from time to time and to confirm to the Maharashtra Industrial Development Act 1961 and the Rules and Regulations made thereunder, as per annexure-1.

Shri Subhash Dattaram Gad
of M/s. Shri Mauli Plumber Works bearing
Licence of Municipal Corporation of Greater Bombay / Thane, Kalyan or Local
Municipal Council No. 12246

For the year 20 _____ have appointed as a licensed plumber to carry
out the plumbing work for the water supply and sanitary arrangement for the building

_____ on Plot No. N-129 to N-132 Road No. _____

Phase _____ in MIDC TARAPUR Industrial Area

at Boisar Survey No. _____ of Village

Pan Tembhi Taluka Palghar District Thane

Registered Office Address 201 Kakad Chambers 2nd floor,

132 Dr. A.B. Road, Worli, Mumbai - 400 018.

Purpose which is required for construction / process hereby undertake to give the Corporation
due notice of any additions or alterations to the above mentioned supply which construction /
process may desire to take the quantity of water likely to be used per day would be
330 C.U.M. at initial stage and 350 C.U.M. on later stage.

I/We have carefully read and understood the water supply regulations 1973 and agreed to
abide by the provisions made therein and amendments, carried out in the Regulations from time
to time and water supply to and water supply to my/our premises will be governed by the
Regulations fully, finally and will be legally binding upon me/us.

Sarex Overseas

(A Division of Saraf Chemicals Ltd.)

N-129 to N-132, M.I.D.C. Tarapur,

Boisar, Dist. Thane,

Maharashtra-401 506

Seal of company/Registered Address

Sarex Overseas

(A division of Saraf Chemicals Ltd.)

AUTHORISED SIGNATORY

Signature of Applicant
with Rubber Stamp

Deputy Engineer,

MIDC Tarapur Main water Sub. Div.
Tarapur.

SHRI MAULI PLUMBER WORKS

Kumbhawli, Taluka Palghar,

Dist. Thane L.N.-12246

Signature of Licenced Plumber
with Rubber Stamp & License No.

Annexure –8

Photographs of the existing green belt



GREEN BELT PHOTOGRAPHS





GREEN BELT PHOTOGRAPHS





GREEN BELT PHOTOGRAPHS





GREEN BELT PHOTOGRAPHS



Annexure – 9

Onsite Emergency Plan

ON SITE / OFF SITE EMERGENCY CONTROL PLAN

FOR



SARAF CHEMICALS PVT LTD

SAREX OVERSEAS

(A division of Saraf Chemicals Pvt Ltd)

Plot No N-129 to N-132

MIDC Tarapur

Dist - Palghar

Updated in Nov - 2021

Rev-10

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SARAF CHEMICALS LTD

Amendment details & Procedure

The insertion of the additional / amended page (s) to this document and the removal of the old page (s) in the individual controlled copies as per the distribution list given below is the responsibility of the person holding the individual copy. The revised page (s) shall have signature of approval and issuing authorities including “Controlled stamp” all old page (s) so removed are crossed with an inscription of the marking “OBSOLETE” and returned to the Management Representative who ensures that the same are destroyed. One copy of the earlier version of the page (s) is retained by the Management Representative.

2). AMENDMENT DETAILS (IF ANY)

AMENDMENT		Revision no.	NOTES ON AMENDMENTS
No.	Date		
01	Jan-11	01	As per BASF audit recommendation
02	Jan-12	02	As per Stage -1 Audit recommendation
03	April-13	03	As per IS 12 Audit recommendation
04	Dec - 14	04	As per self assessment
05	June -15	05	As per BASF pre EHS audit
06	Oct-16	06	As per self assessment
07	April -19	07	As per self assessment
08	April -20	08	As per self assessment
09	April -21	09	As per self assessment
10	Nov-2021	10	As per Factory Inspector Visit & suggestion

(Management Representative)

This plan is the property of “SARAF CHEMICALS Pvt. LTD [SAREX OVERSEAS, a division of Saraf Chemicals Pvt. Ltd]”; no part of this plan in any form may be printed or reproduced without permission from the management. All inquiries regarding this plan may be directed at the above address to management Representative who is responsible for its administration.

3.0 DISTRIBUTION LIST OF ON / OFF SITE PLAN :-

Sr. No.	Copy Holder	Copy No.
1	Occupier	Master Copy
2	ADMINISTRATION / ENVIRONMENT HEALTH AND SAFETY	1
3	DISH	2
4	Emergency Control Room	3
5	Head Office	4

4.0 INTRODUCTION:

Name and Address of the Management Representative furnishing the information.

Mr. Naresh Salgiya

Factory Occupier (President / Director)

Factory Address.

Plot No N-129 to N-132 & N-232

MIDC Indl. Area, Tarapur,

Kumbhavali Naka, Boisar,

Tal – Palghar, Dist – Palghar

 02525-243900, 661024, 271414.

Resident Address

Flat No 201, 2nd Floor,

Bldg. No 16, Saibaba Nagar,

Tarapur Road, Boisar, Dist - Palghar



09860384233 / 07738099255

Mr. Rajesh Kumar Dwivedi

AGM - HRD


Factory Address:

Plot No N-129 to N-132 & N-232,

MIDC Indl. Area, Tarapur,

Kumbhavali Naka, Boisar,

Tal – Palghar, Dist – Palghar

 02525-243900, 661024, 271414

Resident Address

Flat no-8 SBI Bank building,

Khodaram compound,

Tarapur Road ,boisar.



09921514434/9136014432

5.0 EMERGENCY MANAGEMENT

5.1 List of Emergency.

1. Fire Explosion
2. Fire due to Short Circuit
3. Toxic Release
4. Fire due to industrial process.
5. Individual emergency (as case may be)

5.2 Then later one is well in our control.

Failure of process control causing leak, over pressure bursting.

5.3 Objective of On Site Plan:-

1. To control, localize & eliminate the hazard in minimum time.
2. To minimize the damage to property, life & environment & restore normally.
3. To safe guard other unaffected by timely evacuation, ensure head count.
4. Welfare of the person managing the Disaster.
5. Rescue of People.
6. Treatment of injured.
7. Informing and assisting relatives.
8. Informing and collaborating with statutory authorities.
9. Preserving records and organizing investigation.
10. To ensure personal and plant security after resuming back to the work.
11. Rehabilitation after control of major emergency.

5.4 Assembly Point

1. The assembly point is fixed near Security gate No.01 & Gate No.03 & Sarex Chemicals. These are marked with green color.

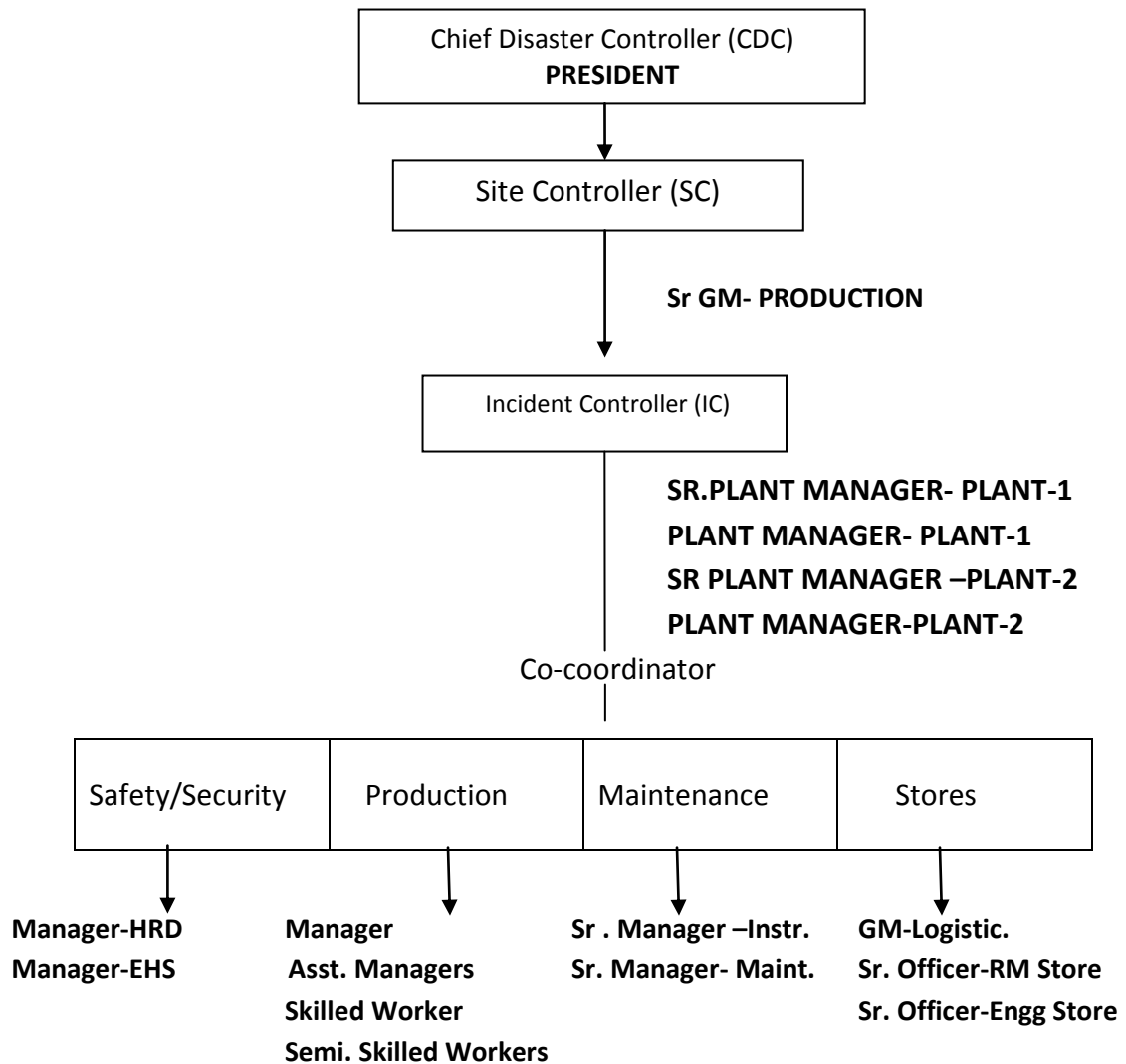
5.5 Emergency Control Centre

1. Admin Block is decided as Emergency Control Centre.

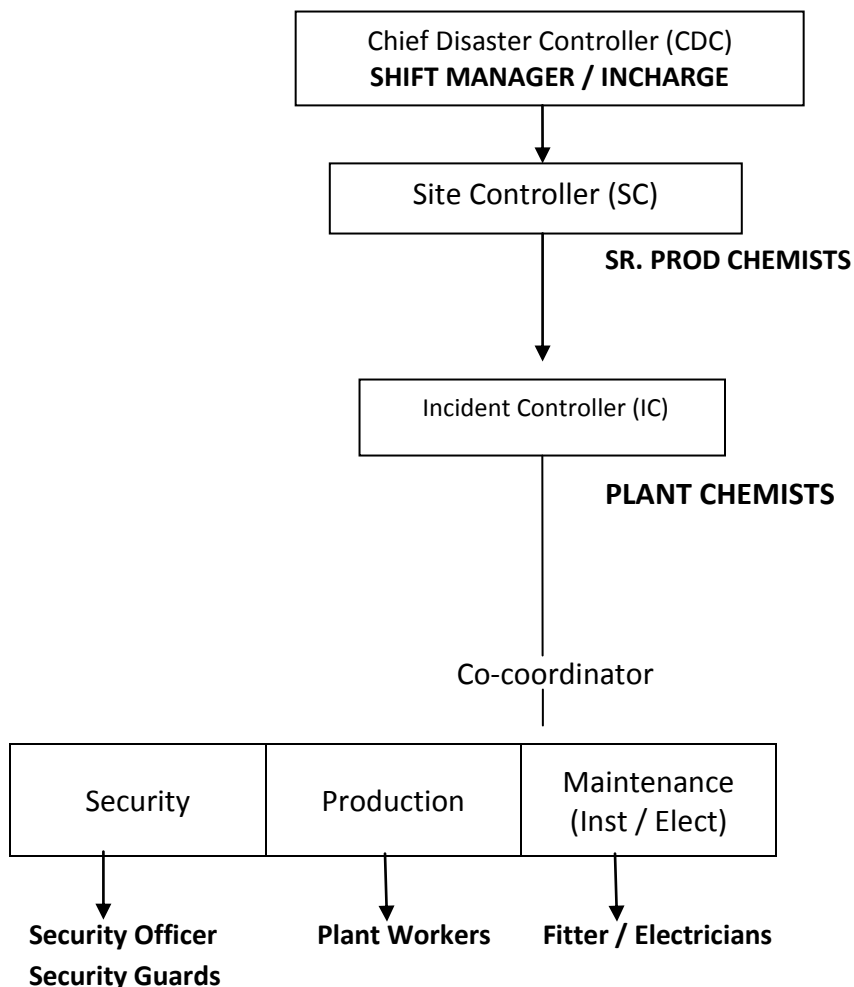
5.6 Administrative Facility Available to control emergency.

1. A copy of plan of factory showing area of storage of hazardous material and major equipments
2. Direct STD dialing facility.
3. Telephone Directory.
4. Xerox machine, computers
5. List of Emergency squad members with their telephone numbers.
6. M.S.D.S. of key raw materials and finished goods.

6.0 ONSITE EMERGENCY STRUCTURE – During Office Hours



6.1 ONSITE EMERGENCY STRUCTURE – During Silent Hours



NOTE :-

- In absence of CDC (Chief Disaster Controller), SC (Site controller) and Manager - HRD will jointly perform the duties of CDC (Chief disaster controller)
- During silent hours if any emergency arise Shift Manager / In-charge will perform as CDC (Chief disaster controller) till arrival of President i.e CDC during office hours.

7.0 ROLE & RESPONSIBILITY :

In order to achieve above objectives the role of key personnel is clearly defined to avoid confusions & to meet the emergency effectively. Chief disaster controller is responsible in total for any emergency control . He is overall in-charge & is assisted by functional co-ordinators like Production , Safety , Admin etc. As per the emergency preparedness chart the success of control of an emergency situations depends upon their timely action. The action for these persons & emergency DO'S And Don'ts are given in this session.

- A. Chief Disaster Controller
- B. Site Controller
- C. Incident Controller
- D. EHS Co-coordinator
- E. Security Personnel
- F. Rescue Team
 - Mechanical
 - Electrical/Instrumentation
 - Stores
 - Administration
 - Off Duty Employees
 - Telephone Operators
 - Finance

ROLE & RESPONSIBILITIES OF CHIEF DISASTER CONTROLLER

PRESIDENT

1. Declaration of emergency, evacuation, all clear, dispatch etc.
2. Establishing Emergency Control Centre. [ECC]
3. Taking final decision of course of action.
4. Communication to head office Mumbai.
5. Disclosure of information to press and at other places.
6. Direct all operations and call the external help from emergency control centre.
7. Call the members of the MUTUAL AID.
8. Report the event to the nearest district police station , fire bridge, civil defense force, district emergency officer, Factory inspectorate and other voluntary body to assist to the task.
9. Arrange to call the experts /the suppliers.
10. Works as Liaison officer between outside fire Brigade & Police advise on specialized technical aspects of the material involved and internal details of the factory.
11. Give clearance signal when everything's becomes normal.

ROLE & RESPONSIBILITIES OF SITE CONTROLLER

SR GM-PRODUCTION / PLANT MANAGERS

1. On arrival immediately assess the scale of emergency and decide if a major emergency exists or is likely.
2. Activate the On Site Action Plan depending on the type of emergency.
3. Assume the responsibility of the Chief Disaster Controller till the arrival of the Chief Disaster Controller.
4. Direct the shutdown and evacuation of the plant . Identify the area likely to be affected by the emergency.
5. Give advice , information as requested by the head of the Fire Bridge , Police & Mutual Aid members.
6. Make available the copies of “ ON SITE DISASTER CONTROL PLAN”.
7. Brief the Chief Disaster Controller when arrives on the scene.

ROLE & RESPONSIBILITIES OF INCIDENT CONTROLLER

SHIFT IN-CHARGE

1. Act as link between site & Chief Disaster Controller.
2. Take decision related to isolation, resources, deployment, rescue, Dispatch etc.
3. Liaise with other departments like Safety ,Services for effective & Smooth co-ordination of activities.
4. Extend technical help based on process parameters, hazards of chemicals etc.
5. Control/stop all loading, unloading operation in the section.

ROLE & RESPONSIBILITIES OF EHS CO-ORDINATOR

MANAGER-ADMIN-HR

In addition to his general duties of maintaining order of administration he shall discharge following duties :

He Shall,

1. Assist the emergency operation in safe manner.
2. Advise/assist the first aid squad operation and handling of casualties.
3. Advice based on hazard involved in situation to avoid escalation of situation.
4. Arrange and supply safety equipment/appliances.
5. Keep the antidote & other medicines ready in health centre through mail nurse or first aiders.
6. Execute all directions and instructions of Chief Disaster Controller regarding.
 - Calling mutual aid members.
 - Specialist from the supplying company.

For efficient and successful operation of the plan statutory agencies listed below should be actively involved for guidance and help.

- Fire Brigade
 - Police Authorities
 - Collectorate/revenue officials
 - Directorate of Industrial Safety & Health
 - Maharashtra Pollution Control Board.
 - District Health Authorities.
 - Non government organization.
 - Local Leaders.
7. Supervise the duties of the Security Personnel.
 8. If injuries and casualties does occur then he shall obtain names and address of the injured and dead.
 - Arrange for the medical aid. Talk to the hospital and doctors . Report about the type of injury / burn injuries and or toxic effects.
 - Report to the hospital and make arrangement for likely more cases of the injuries.

He shall appoint other personnel from the factory like stores/Materials department, engineering department etc to assist him.

ROLE & RESPONSIBILITIES OF SECURITY PERSONNEL

In addition to normal duties of maintaining security at the place of work they shall discharge following duties :

1. Control gate, allow only essential man and vehicle .Allow exit for man and vehicle with permission of CDC. Keep record of person & vehicles going out of the gate.
2. Control traffic to avoid road chocking, regulate vehicle movement.
3. Depute manpower to coordinating of the affected areas.
4. On receipt of inform of emergency communicate important persons like CDC, safety services, admin etc.
5. One security helps in fire fighting.
6. Be in charge of Fire Fighting and rescue operations with assistance of essentials workers and key personnel till the arrival of Fire Brigade and Police.(These operations shall be under the direct supervisions of incident Controller)
7. Remove obstruction from the road to help Fire Brigade to proceed to the scene of fire.
8. Restrict entry of unauthorized and untrained persons from the scene of incident. Also don't allow unauthorized persons / vehicles to enter the premises.

Major Fire/Explosions

- On hearing the fire alarm , proceed to the incident immediately.
- Arrange to extinguish the fire with the help of trained personnel.
- Initiate Fire Brigade if required.
- Inform Fire Brigade if required.
- Control traffic for smooth and normal flow.
- Remove obstructions from the road to help Fire Brigade to proceed to the scene.

Collapse of Structure/ Serious Injury

- On being informed of the incident ask the ambulance to proceed to the scene.
- Depending on seriousness arrange to inform Police Personnel if instructed by Factory Manager.
- Control the flow of vehicles to & from factory.

Release of toxic and hazardous material

- On being informed of the incident , control the flow of traffic and direct all the vehicles away from the incident.
 - Liaison with HSE Co-Coordinator.

ROLE & RESPONSIBILITIES OF RESCUE TEAM

MECHANICAL:

1. Meet any immediate breakdown condition viz. equipment failure, fire line failure etc.
2. Liaise production, Safety and utility coordinator to extend assistance in emergency handling by releasing manpower.

Electrical / Instrumentation:-

1. Meet electrical requirement like power isolation ,temporary power connections, requirement of emergency supply like DG,UPS etc. for essential equipments.
2. Liaise with MSEB for requirement of power etc.
3. Release manpower to help in emergency operation if required

Stores:-

1. Keep safety items ready for issue.
2. Help in fire fighting if necessary.
3. If solvent tanker unloading or solvent tanker available in factory premises . To remove.

Administration:-

1. Liaison with external agencies like fire brigade , hospitals, blood banks, private transports, press, local government statutory authorities, neighboring industries etc.
2. Ensure the correct accounting of person for head count & give feedback to CDC.
3. In consultation with Chief Disaster Controller release the emergency details .
4. Ensure through the person on control for only brief & authentic information release.

OFF DUTY EMPLOYEES :

Employees who are on Off duty & available should immediately report to the EMERGENCY CONTROL ROOM & await for the instructions.

TELEPHONE OPERATOR :

Should ensure that all the external lines are kept free.

FINANCE

1. Man the cash section all the time during emergency
2. Liaise with insurance company for information.

8.0 ANY ONE NOTICING FIRE /GAS LEAK

1. MAJOR FIRE / EXPLOSION

1. Inform the Manager Production / Shift Supervisor available who is in charge of the factory at that time about the
 - Place of the fire/Explosion.
 - Extent of fire fighting action taken by him
 - The material involved.
 - No. of persons affected.
2. Try to extinguish the fire with the help of fire extinguishers, if without risk. If he is unable to extinguish the fire , he should see that the fire does not spread to nearby area.

2. COLLAPSE OF STRUCTURE / SERIOUS INJURY

1. Inform the Manager production / Supervisor etc.
2. Remove the injured person to the safe place. Take help of trained first-aiders.

3. RELEASE OF TOXIC HAZARDOUS MATERIAL

Inform the Manager production/supervisor or person available who is In-Charge of the factory at that time about the

1. Place of gas leak
2. Extend of leakage
3. Action taken by him
4. The material involved
5. No of person affected.

4. IN CASE OF INDIVIDUAL EMERGENCY

In any case if a individual or selected persons found injured in such emergency will applicable to the selected persons only. Need not to evacuate the whole site /plant / location. The affected persons will be given first aid by trained first aiders and if required they will transferred to hospital for further treatment. In such cases emergency also will not declared and only evacuated the affected persons.

9) EMERGENCY DO'S AND DON'T'S

DO'S	DON'T'S
ANY ONE NOTICING AN EMERGENCY: The emergency could be fire/Explosion /Gas leakage or emission and heavy leakage. Actuate nearest fire alarm button and /or inform the supervisor . Get back to your normal Workstation [if safe] or else report to the assembly point, the SOP's related to emergencies are available at Security Fate No.1 for further Guidance.	DO NOT panic and avoid running all over the place prevent others from doing so. DO NOT enter the site unless instructed if you are out side and disaster alarm is heard.
CONTRACTOR PERSONNEL: Stop work on hearing alarm and assemble at the ASSEMBLY POINT and be ready to evacuate.	DO NOT enter the site until it is cleared for the normal work by incident Controller.
SECURITY : Keep the gate manned. Keep the road clear for movement of fire tenders Control traffic at gate. Inform to Emergency Response team for action.	DO NOT allow unauthorized visitors free to enter.
VISITORS : Leave the place and assemble at assembly point .	DO NOT enter the site if emergency alarm is heard.
ALL OTHER EMPLOYEES ON THE SITE: On hearing FIRE/GAS RELEASE alarm get back to work place [if safe] and get instructions from supervisors.	DO NOT panic /run. DO NOT go to the scene of emergency unless specifically instructed by Incident Controller.
GAS/FUMES EMISSION Try to go opposite direction of wind . Observed wind sock placed at terrace to know the wind direction.	Do not rush & go to the direction of wind.

10.0 GENERAL INSTRUCTIONS :

- Speed is essential.
- Clarity of information and instructions to all concerned persons and authorities.
- Telephone systems are to be used only for essential communications to combat the emergency.
- In case of communication failure , send messenger by bicycle or any other transport available.
- Ensure only trained persons are deployed for combating the situation and safely procedure are followed.
- Ensure that MOCK DRILLS are conducted regularly.
- Adequate quantity of material to neutralize the risk elements should be kept ready.

AFTER ALL CLEAR SIGNALS :

- Investigation to avoid recurrences , recommendations and records.
- Resetting the operations- Production Manager.
- Permission from different Authorities and Final Clearance – Site Manager.

11.0 EMERGENCY MUTUAL AID :-

MUTUAL AID RESPONSIBLE GROUP

Sr. No.	Name	Contact person	Telephone
1	Lupin Limited	Mr. Mahesh Kate Dr.Bhangale	Factory – 270192 / 270193 / 273192 HO – 022-66402222
2	Calyx	Mr. Shetty	Factory - 273367 HO - 28575037
3	Mandahana Texttile	Mr. Purrshottam Mandhana Mr. Bhangale	HO-24952124 / 24949398
4	Viraj Alloys Plot No.G-23, MIDC, Tarapur	Mr.Rajesh Jakhodia Mr.Mukesh	9049991101 9049991272 F-270143 / HO-2614327 / 2614284
5	Balkrishan Industries Plot No.H-82, Tarapur,Boisar	Mr.Shashi Patel Mr.Ashok Jalan Khetan	F-329910 / 329911 HO-3079266 / 3087455
6	Manish Techno Works Plot No.S-18, Tarapur ,Boisar	MR. B. K. Potdar TIMA EX-PRESIDENT	Factory – 272683 / 272983 HO-8609355 / 8691468
7	Siyaram Silk Mill Ltd. Plot No.H-3/2, Tarapur, Boisar	Mr.Shashi Patel Mr.Ashok Jalan Mr.Khetan Mr.Ramesh Poddar Mr.Pawan Poddar Mr.Arvind Poddar	F-272958 HO-3093892 / 3095926
8	Parchem Plot NoN-82, Tarapur,Boisar	Mr.Manish Shah Mr.Viren Shah	Factory -274061 HO-8373097

NEIGHBORING COMPANY DETAILS

- 1) PENTAGON DRUGS PVT.LTD.
PLOT NO.N-225
Contact NO- 02525 271270
- 2) EFFEC TECH GASES PVT LTD.
PLOT NO-163.
Contact No- 09665592719
- 3) ALPHA DYE CHEM.
PLOT NO-223.
Contact No- 09422477959
- 4) UNISYNTH CHEMICALS.
PLOT NO-222.
Contact No- 02525 270494
- 5) BAJAJ HEALTHCARE LTD.
PLOT NO-219.
Contact No-02525 655208/655209
02525 661074

12.0 PRELIMINARY HAZARD ANALYSIS

[A] MANUFACTURING PROCESS (Bulk)

A1 Ketoprofen Nitrile :

- Step 1 : Ceba is reacted with Thionyl chloride in presence of Benzene. Alluminium chloride is added as catalyst in friedel craft reaction. Ceba crude is formed.
- Step 2 : The crude is quenched, washed and organic layer is separated. After Benzene recovery the product crude formed which is distilled under high vacuum.
- Step 3 : Distilled product is pressure filtered and purified with addition of IPA. The mass is then clarified to get purified product. The product then undergone for crystallization and then centrifuged and finally dried. The dried product is multimilled, vibrosieved and blended as per customer's requirement.

A2 Chlorohexidine Digluconate :

Chlorohexidine base in reacted with Deltagluconolatore water. Solution is filtered and packed.

A3 5 Ethyl Pyridine – 2 Ethanol :

MET is reacted with parafermaldehyde in presence of catalysit organic layer is separation. Final product is Isolated by high vacuum distillation.

A4 Ven-2 [CG35-1597] :

- Step 1 :** Condensation of cynuric chloride and Thiol and the mass is filtered through pressure filter. Product then water washed. Crude taken for High Vacuum Distillation.
- Step 2 :** The step 1 product is further condensed with Aryl and Alluminium chloride. Reaction mass is then chlorinated and layer separation to be done which is further filtered and dried.
- Step 3 :** Dried product of Step 2 is further condensed with Resorcinol at 80 to 90° C for 10 to 15 Hours. Material is subsequenced in water in presence of HCL and DMF. Charcoal treatment is done and product is then pressure filtered and precipited then centrifuged and finally dried.

A5 Alpha Chloralose :

Dextrose is reacted with the chloral in the presence of catalysist sodalimp. Production Isolated by Crystallisation it in filtered and dried packed.

A6 Benzophenone Imine :

Phenyl magnesium bromide is reacted with benzonitrile in a SS reactor. This mixture is quenched on ammonium chloride solution. Organic layer is separated. Production Is+B27 isolated by high vacuum distillation.

A7 2,4 thiozolidinedione :

Monochloro acetic acid and thiourea is reacted in the aqueous medium. After completion of the reaction Production filtered off and dried.

A8 TDA :

Step 1 : 1,3 Difluorobenzene is to be reacted with Chloro Acetyl Chloride in presence of Aluminium Chloride and solvent ED. Further quenching and layer separation is done. The resulted product is taken for 2nd step.

Step 2 : The first step product is dissolved in Acetonitrile, clarified and the clear solution is to be condensed with 4 Amino Triazole. Further pH adjustment to 7 to 8.5 done with liquor ammonia and chilled the product to 0-5°C and filtered the mass. The filtered wetcake is to be dried, multomilled and blended as per customer's requirement.

A9 Irgafos 12

Step 1: 2,4 Ditert Butyl phenol is reacted with 35% Hydrogen Peroxide in presence of caustic solution. The slurry is filtered centrifuge and washed by 88% isopropyl alcohol. It is dried under vacuum to constant weight

Step 2: Irgafos Step 1 is reacted with PCl₃ in xylene and the product chloride is formed. This is further reacted with Triethanolamine in presence of Triethylamine to form Irgafos 12 crude which is purified by crystallization in Isopropyl alcohol

A10 Irgafos 38

2,4- Ditert-6-methyl phenol is reacted with PCl₃ in xylene and reacted with Ethanol in presence of Triethylamine. The crude Irgafos 38 is purified by crystallization in Isopropyl Alcohol.

[B] MANUFACTURING PROCESS (Semibulk)

Fine Chemicals are defined as specific purity chemicals used as intermediates in broad spectrum of chemical industry in general and bulk drug industry in particular.

The basic process involved in fine chemicals manufacturing are as follows.

Unit process or involving reactions / synthesis in S.S. reactor / glass line reactor or in all glass assemblies under pressure or without pressure with agitation and upto the range of 0-5°C at higher temperature than ambient or low temperature.

Distillation with or without vacuum.

Filtration as unit process involving centrifuge or sparkler filter or Nutch.

The basic chemical reactions such as bromination, nitration, Friedel craft reactions, and major, Oxidation, Reduction etc.

The unit process ultimately completes by drying in tray Dryer / fluid bed Dryer. Milling & Packing.

Process Quality control and quality assurance is the part of fine chemical manufacturing.

C] MANUFACTURING PROCESS(Textile Chemicals)

The Auxillaries chemicals are manufactured in SS Reactor having reflux condenser & distillation arrangements. The formulation of the Auxillaries chemical are done as per the standard recipe by DM water of set quantity is used. The company already have D.M water unit to take care of Necessary requirements.

12.1 CAUSES

The causes or events that lead to a major accident :-

5.2.1 Natural	Storm
	Wind
	Flood
	Earthquake
	Lightening
5.2.2 Deliberate	Sabotage
	Terrorism
	Civil Commotion / Armed conflicts
	Plane crash / Air raid
5.2.3 Unsafe Acts and Situations	Conditions
	Equipment failure
	Design deficiency
	Abnormalities in operation or maintenance
	Fire / Emergency in neighborhood

12.2 HAZARDS ASSOCIATED WITH THE MATERIALS HANDLED AT SITE

SULFURIC ACID

Corrosive Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or contacted with skin. Harmful if inhaled. Affects teeth. Water reactive. Cancer hazard. Strong inorganic acid mists containing sulfuric acid can cause.

Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat, and labored breathing. May cause lung edema, a medical emergency.

Concentrated material is a strong dehydrating agent. Reacts with organic materials and may cause ignition of finely divided materials on contact.

Contact with most metals causes formation of flammable and explosive hydrogen gas.

CAUTIC SODA

Corrosive may be fatal if swallowed Harmful if inhaled. Causes burns to any area of contact. Reacts with water, acids and other materials. Decomposition by reaction with certain metals release flammable and explosive hydrogen gas.

TOLUENE

May result in corneal injury .Vapor may cause eye irritation , skin irritation and dermatitis.

May cause irritation of digestive tract Inhalation of high concentration may cause central nervous system effects characterized by nausea, Headache, dizziness, unconsciousness and Coma.

CHLORINE GAS

Poisonous corrosive liquid and gas under pressure. Acute effect- CL₂ gas can cause severe irritation of eyes and respiratory system may cause tearing, runny nose, sensing, coughing , chocking and chest pain. Chlorine Effect: - Corrosion of teeth, skin irritation.

METHANOL

Toxic by inhalation in contact with the skin and it swallowed. Produce irritation , characterized by burning sensation , redness , tearing and possible corneal injury. May be fatal or cause blindness if swallowed . May cause gastrointestinal irritation with Nausea , vomiting & diarrhea.

ETHYL MERCAPTAN

Highly flammable harmful by irritation , very toxic to adequate organism, may cause eye irritation. Harmful if swallowed , may cause narcotics effect in high concentration.

RESORCINOL

Contact with eye may cause severe irritation and possible eye burns. May cause skin sensitization with nausea , vomiting & diarrhea

BIPHENYL

Irritation to eyes respiratory system and skin very toxic to adequate organism.

CYANURIC CHLORIDE

React violently with water . Harmful if swallowed . Very toxic by inhalation . Cause eye burn. Lachrymater . May headache . May cause nausea and vomiting . May be fatal if inhaled . Cause chemical burn to the respiratory tract. Toxic if inhale

HYDROCHLORIC ACID

Corrosive Liquid and mist cause severe burns to all body tissue. May be fatal if swallowed or inhaled.

When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine and explosive hydrogen gas.

FURNACE OIL

Vapors will be released above flash point and when mixed with air can burn or explode in confined space if exposed to ignition source.

SODIUM NITRITE

Strong oxidizer. Contact with other material may cause fire. Heat, shock, or contact with other material may cause fire or explosive decomposition. Harmful if swallowed, inhaled absorbed through skin. Causes irritation to skin, eyes and respiratory tract.

Contact with oxidizable substances may cause extremely violent combustion. May explode when heated to 537C (100F) or on severe impact or on contact with cyanides, ammonium salts, cellulose, potassium plus ammonia, and sodium thiosulfate.

Reacts vigorously with reducing materials and is incompatible with many substances including ammonium salts, cellulose, cyanides, lithium, potassium plus ammonia, sodium thiosulfate, aminoguanide salts, butadiene, phthalic acid, phthalic anhydride, reductants, sodium amide, sodium disulfide, sodium thiocyanate, urea, wood and organic matter.

PHOSPHOROUS TRICHLORIDE

Very toxic, corrosive. may be fatal if swallowed or inhaled. causes severe burns. local pain, redness and possible acid burns on prolonged contact. vapor causes irritation.

Reacts violently with water. may cause flashes of fires due to spontaneous ignition of diphosphine.

HYDROGEN PEROXIDE

Strong oxidizer, contact with other material may cause a fire. harmful if inhaled. corrosive. causes eye and skin burns. may cause severe respiratory tract irritation with possible burns. may cause severe digestive tract irritation with possible burns.

12.3 SYSTEM ELEMENTS OR EVENTS THAT CAN LEAD TO A MAJOR HAZARD

At the site disaster could be of the following type,

- Fire/Explosion
- Large Spillage of hazardous chemicals
- Release of flammable or toxic gas resulting in fire , explosion or gas cloud , and other forms of air pollution, thermal radiation & smoke .
- Toxic gas release from neighboring factory.
- Overturning of road tanker containing flammable/toxic material.
- Failure of piping containing flammable /toxic material.
- Fall of structure of building.
- Release of high velocity fragments of ruptured equipments due to overpressure conditions.

12.4 SAFETY RELEVANT COMPONENTS :

Fire hydrant system

SRV's

Explosive meter

Scrubber

Fire Extinguisher

Diesel Driven pump.

13.0 IDENTIFICATION OF SITE

The factory **SARAF CHEMICALS PVT LTD [SAREX OVERSEAS]** is situated at Plot No.N-129 to 132 in MIDC industrial area , Tarapur ,Dist: Thane. The plots are surrounded by industrial units. A detailed site surrounding plan is enclosed as Annexure II for ready reference. The factory is engaged in manufacturing of fine chemicals / textile chemicals.

13.1 LOCATION OF DANGEROUS AND HAZARDOUS SUBSTANCE

1. Explosive solvent yard - 09 Nos
2. Ethyl Mercaptant Thiol Tank – 01 Nos
3. Dry HCL Storage Shed
4. Hydrochloric Acid Storage Tank
5. ML tank Farm
6. Chlorine Tonner Area
7. Furnace Oil

(The details are shown in the drawing on next page)

13.2 INVENTORY OF THE CHEMICALS

MAJOR FINISHED GOODS

Sr. No.	Name	Mode of Storage	Maximum Qty. stored MT.
1	VEN-2	GI DRUM/Antistencence/Jumbo bag	10
2	Ketoprophen Nitrile	Fiber drum	3.5
3	Alpha Chlorosol	Boxes	1.8
4	5-Ethyl – pyridine Ethanol	HDPE Drums	5
5	4- Bromo-2 –Fluoro biphenyl	HDPE Drums	2
6	Aminodiphenyl Methane	HDPE Drums	3
7	Benzophene amine	HDPE Drums	3
8	2,4-Thiozolindi dine	HDPE bag	2
9	TDA	HDPE drum	2
10	Sertralone	HDPE drum	3
11	Misc.Fine Chemicals	HDPE Drum	5
12	Diethyline triamine	HDPE drum	1.5
13	Diethyline Glycole	GI Drum	1.5

14	Ammonium Chloride	HM Bag	0.15
15	Irgafos-12	Jumbo bag	5
16	KI - 5	Jumbo bag	5
17	4BB	Jumbo Bag	5
18	Appolo-1164	Boxes	3
17	Appolo-103	Boxes	3
18	PIO-1	IBC	2

MAJOR RAW MATERIAL / INTERMEDIATES

Sr. No.	Name	Mode of storage	Maximum Qty. stored MT.
1	Methanol	MS Storage tank	30
2	Toluene	MS Storage tank	5
3	Hydrochloric acid	PPFRP	9
4	Monochloro benzene	MS Storage tank	30
5	Caustic Soda[Lye]	MS Storage tank	12
6	Cynuric chloride	MS Drum	5
7	Resorcinol	HM Bags	5
8	Biphenyl	Paper bags	10
9	CEBA	Drums	3
10	Benzonitrile	HM Bags	2
11	Aluminium chloride	MS Drums	5
12	Phenyl magnesium bromide	Drum	2
13	1,3 Di-fluoro benzene	Drum	1.5
14	Ortho fluoro aniline	Drum	2
15	Iso Propyl alcohol	DRUM	2.5
16	Heptane isomer	Drum	1.8
17	HCL Gas Anhydrous	Cylinder	0.15
18	Formic Acid	Carboy	2.0

13.3 SEAT OF KEY PERSONNEL

The seat of key personnel is located at the Emergency Control Room. It is marked on the map and board displayed at site.

13.4 EMERGENCY CONTROL CENTRE

EMERGENCY CONTROL CENTRE as marked on site plan will be focal point in case of an emergency, from where the operations to handle the emergency are directed and co-ordinated by site Main Controller.

EMERGENCY CONTROL ROOM, will be equipped with following items

1. Copy of on site Disaster Control Plan
2. Telephone (Internal and External)
3. Note pads, pencil etc. to record messages received and any instrumentations to be passed on through runners.
4. Antidotes
5. Flameproof torch
6. Public address system – Mega Phone
7. Technical Manuals on Startup, Shutdown etc. operating procedures.
8. MSDS of major raw materials.
9. MSDS Of finished goods products

14.0 HAZARDOUS CHEMICALS

14.1 QUANTITIES AND TOXICOLOGICAL DATA

In the manufacturing operations various flammable /Toxic Corrosive materials compressed gases are utilized . Also, the stock of combustible materials is maintained . These items have potential to lead to accidents / fires explosion etc. The description of hazardous chemicals handled at the plant site are listed in the following table.

Table-1 : Chemical Handled at site

SR. NO.	NAME	TOXICOLOGY				
		LD50	LC50	TLV	IDLH	STEL
		MG/KG Oral	MG/KG INHALATION	MG/M3	MG/M3	MG/M3
1	Benzonitrile	Mouse -971mg Rat -1200mg Rabbit- 1200mg	Mouse-1800mg	-	-	-
2	Phenyl-mg-Bromide	Mouse -1760mg Rat -1215mg Rabbit- 720ml	Mouse-3100ppm /30minutes	-	-	200ppm
3	Benzene	Mouse -4700mg Rat -1ml/kg Human- 28000ppm	Mouse-9980ppm Rat-10000ppm	-	-	-
4	Cynuric Chloride	Mouse -350mg Rat-485mg	Rat-0.17mg/ltr Rabbit->2000mg	-	-	-
5	Toluene	Rat -636mg Rabbit-14160ml Mouse-	Mouse- 30000mg/m3 400ppm/24hrs Rat- 49gm/m3/4hrs	Min-1.1 Max- 7.1	-	-
6	Monochloro Benzene	Mouse -2300mg/kg Rabbit-2250mg/kg Rat-1110mg/kg	Rat-2965ppm/oral	-	-	3
7	Resorcinol	Rat -301mg/kg Mouse-200mg/kg Rabbit- 20mg/24h/skin	-	-	-	20ppm
8	Biphenyl	Rat -30mg/kg Mouse-200mg/kg Rabbit- 3360mg/24h/skin	-	-	-	92mg

9	Alluminium Chloride	Rat -3450mg/kg Mouse-1130mg/kg Rabbit->2gm/kg	Rabbit-10%/60 Fish-100mg/hr 12-96hrs	-	-	-
10	1:3Di fluoro benzene	Mouse -2300mg/kg Rabbit-2250mg/kg Rat-1000mg/kg	Rat-3000ppm/oral	-	-	-
11	Ortho Fluro aniline	Rat -1000mg/kg Rabbit-2300mg/kg Mouse-2700mg/kg	-	-	-	-
12	Thionyl Chloride	Rat – 500 ppm/1h	-	-	-	-
13	HCL30%	Rabbit-900mg/kg Rat->90mg/kg	Rat-3124ppm/1hr Mouse- 1108ppm/hr	7	100ppm	-
14	Caustic lye	Rat-4090mg/kg	Rat- 2300mg/M3/2hr	2	100ppm	
15	Ethyl Mercaptan	Mouse : 2770 ppm/4h Rat : 4420 ppm/4h, Rabit (skin) : 500 mg/24h				
16	Phosphorous trichloride	Rabbit: 1260 mg/kg Rat: 18 mg/kg	Rat: 104 ppm/4H	-	-	-
17	Hydrogen peroxide	Rat: 4060 mg/kg	Rat: 2ppm/4H	-	-	-

14.2 TRANSFORMATION [IF ANY]

MSDS available at various places in plant (Control room + Safety Officer + Logistic Dept)

15.0 LIKELY DANGER TO THE PLANT

Sr. No	Accident Scenario	Causes	Consequences Zone
1	Spill	Hose failure during road tanker unloading to storage tank. Spill of acidic /toxic material	Local
2	Spill	Pipeline /pump gland leakage, Gasket failure Spill of acidic /toxic material	Local
3	Large Spill	Failure of bottom valve or Catastrophic failure of reactor	Off site potential
4	Explosion	Run away reaction Pressure development	Off site potential
5	Fire	Any spill of flammable material catching finding of ignition source.	Local
6	Electrical fire	At electrical installations	Local
7	Fall of structure	Earthquake , poor maintenance	Local
8	Fire	Negligence during welding cutting	Local
9	Toxic Gas Release	Scrubber Failure	Local

16.0 CONSEQUENCE ANALYSIS

16.1 STRESS AND STRAIN DURING NORMAL OPERATION

Following accidents events are considered for consequences analysis

Case1 : Hose rupture during tanker unloading

Case2: Liquid leakage from pump gland or Gaskets

Case3: Spill due to piping failure / rupture

Case4: Pressure development/ uncontrolled reaction.

Case5:Catastrophic failure of reactor /storage tank/vessel.

16.2 MAXIMUM CREDIBLE LOSS SCENARIO (MCLS)

Maximum credible loss Scenario (MSLS) is one of the methodologies evolved to access the events in realistic and practical way. An MSCL can be described as the worst “ Credible “ accident or as an accident with maximum damage distance. Which is still believed to be probable. The analysis , however , does not include a quantification of the probability of occurrence of an accident.

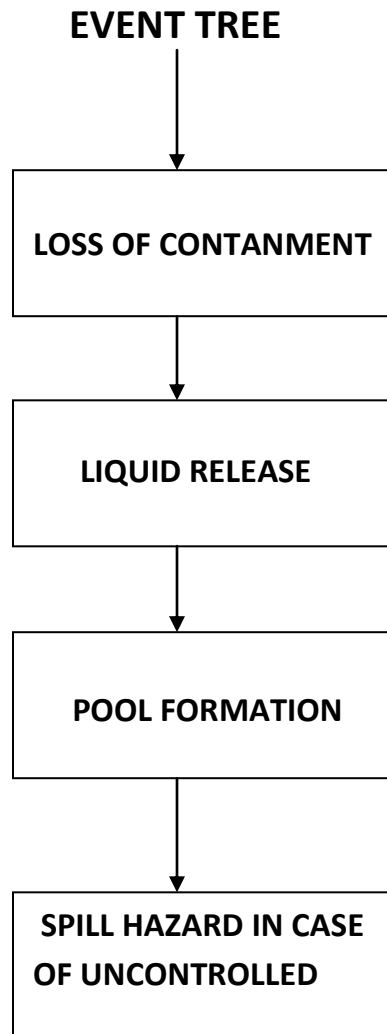
The MCLS aims at identifying undesirable and hazardous events causing the maximum damage to human beings environment around the industry under the consideration.

Catastrophic failure of reactor / storage tank/vessel case no.5 and release of the material in the atmosphere leads to disastrous situation however considering the safety measures adopted the probability of such event is very low. The case no.3 i.e. Spill due to piping failure / rupture in case of HCL acid transfer line event is probable event causing emergency at site , it is considered as MAXIMUM CREDIBLE LOSS SCENARIO and data obtained from consequence is used in on site disaster control planning.

There is storage of 10Mt of HCL at site . The material is received from Road tanker using hose and transferred to day tank in plant by dedicated piping network using pump. There is provision of Dyke for any accidental spill containment. The simulation of consequence is indicated on the diagram of following page:

- 1.Overflow of containers /tanks during unloading & loading solvent dispensing.
2. Solvent leakage from container , Tanks, Drums.

16. 3 SILULATION OF CONSEQUENCE



17.0 DETAILS OF SAFETY SYSTEM

17.1 HAZARD CONTROL PLAN

In line with disaster control and hazard control planning ensuring the necessary technical and organizational precautions.

17.2 ALARM /SIREN

Presently there is one alarm installed (in addition to local alarm) at the factory premises as marked on the site plan.

17.3 ALARM CODE

EMERGENCY DECLARATION	1 Minute long and short siren
EVACUATION	3 minute long & short siren
ALL CLEAR	1 minute long continue high pitch signal.

17.4 TESTING OF ARAM:

Every day during first shift timing and testing regular blowing of siren is being done. For abnormal incidence i.e as mentioned above siren is blown as per above pattern. Emergency Alarm is located at gate office building as marked on the site plan.

On hearing alarm the incident controller will activate the action on Disaster Control plan by giving proper instructions or predetermined signals

17.5 ASSEMBLY POINT:

Assembly point is marked on SITE PLAN, is located farthest from the location of likely hazardous event.

SR. NO.	LOCATION OF ASSEMBLY POINT	FOR PERSON
1	Near main gate No.1	Person from Plant-II & Office building
2	Near gate No.3	Person from Project Area / QC / R &D, Stores & Were house

17.6 SITE PLAN



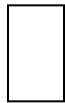
Alarm



Wind Direction Sock



Assembly Point



Water Storage



First Aid



Escape Route



Lightning Arrester



Emergency Dial No. 300

17.7 EVACUATION

If the incident is likely to effect people in the other plant area or environment outside the site. The site main Controller will intimate evacuation. Evacuation of the personnel to assembly area / or away from site ensuring head count.

Accounting for site Personnel Visitors and Contractors, particularly those know to have been in the affected area. The evacuation is along the escape route leading to assembly point.

People must be evacuated at right angle to wind or opposite the wind direction. Manpower employed of manufacturing activity is given in the following table :

SHIFT	TIMING	No. of employees		
		Male	Female	Total
General / First Shift	07:00 TO 17:30	90	0	90
Second Shift	15:00 TO 23:00	45	0	45
Third Shift	23:00 TO 07:00	45	0	45
	Total	180	0	180

Including Security / Housekeeping persons.

Above table gives maximum number of persons available at site at any given time. It indicates that maximum number of persons at changeover between first and second shift can be approximately evacuation arrangement for same may be required in worst possible scenario.

17.8 REHEARSAL / MOCK DRILL

In disaster, management time is very important, the initial few minutes are critical and timely action may control the emergency. For persons to perform quickly their assigned roles, it is essential that each individual should be made aware of emergency rehearsals, which will impart procedures and their individual roles through proper training. It is necessary to test through necessary expertise to individuals to act quickly in case of a real emergency. This will help in identifying the deficiencies in the procedures and the likely difficulties, that may be encountered during implementation hence rehearsal of the plan will undertaken at an interval of three months of work or when any new substance is introduced in the process or in the event of a serious accident taking place it will be reviewed and modified to the extent necessary.

17.9 REVISION

“The Plan “, will be reviewed once in every calendar year, and modified if necessary. In case of any change in the of operations or methods.

17.10 QHSE POLICY

As a commitment towards safe working environment, the management has formulated safety policy and the same is displayed at prominent places at site.

17.11 HANDLING OF HAZARDOUS CHEMICALS

Preliminary Precautions for preliminary precautions to be taken in the event of Fire, Exposure related health problems and about spill related aspects. For the incident involving the HCL acid the row from the table will indicate : Health 5,6 and spill control 23, the response suggested will be;

17.12 HEALTH / SPILL CONTROL

1. Wash affected areas / eyes with copious amounts of water oxygen.
2. Remove to fresh air / administer oxygen.
3. Do not use water, use sand or earth.

17.13 EMERGENCY RESPONSE CHART

SR. NO.	NAME	FIRE EXPLOSION	HEALTH	SPIIL CONTROL
1	Benzonitrile	-	6.1	-
2	Phenyl-mg-Bromide	R-12 R-14/15 R-19	R-22 R-67 R-34	-
3	Benzene	R-11 Class-01	R-36/38 R-45 R-46 R-48/23/24/25 Cartiogenic	CAS. 7-43-2
4	Cyanuric Chloride	-	S-26 S-28B R-22 R-26 R-34,R-45,R-46	R-14 R-34
5	Alpha Napthol	6.1	S-22, S-26,S-37& S-39	Water
6	Toluene	Class-3	No Carcinogenic	Dry carbon dia oxide & water
7	Monochloro Benzene	Class-3		Dry carbon dia oxide & water
8	Resorcinol	Class-6.1 Toxic to aquatic organism	-	Dry carbon dia oxide & water
9	Biphenyl	Class-6.1.	Refer MSDS Part-8	Dry carbon dia oxide & water
10	Aluminum Chloride	Class-C	RP-34	Dry carbon dia oxide & water
11	1:3Di fluoro benzene	R-11,R-20	Class-3 S-7,S-16, S-29 & S33	Dry carbon dia oxide & water
12	Ortho Fluro aniline	Class-3	Class-3 S-7,S-16, S-29 & S33	Dry carbon dia oxide & water
13	HCL 30%	Class-c	R-34 ,R-37	Water
14	Hydrogen peroxide	Class-C	R-34	Dry chemical, Carbon dioxide, Dry sand.
15	Caustic lye	Class-C	R-35	Water
16	Phosphorous trichloride	Class-6.1	R-14, R-26/28, R-35, R-48/20	Dry chemical, Carbon dioxide, Dry sand.

17.14 FIRE / FIRE FIGHTING AGENTS

- Water can be used when applied in the form of spray and to keep exposed material from being damaged by the fire. It can be used to sweep the flames off the surface of liquid.
- Water or foam may cause frothing when applied on flammable liquids having flash point above 100 °C or 100 °C. Water sprays has to be applied carefully by causing the frothing to occur on the surface and this foaming action blankets and extinguishes the fire.
- Water may be used to blanket fire and accomplish extinguishing. It must be applied gently to the surface of the liquid.
- Water may be ineffective except when applied gently to the surface to blanket and extinguisher the fire.
- ABC TYPE Fire Extinguisher
- Mechanical Foam type Fire Extinguisher
- CO₂. Type Fire Extinguisher
- Dry chemical powder Fire Extinguisher

15.15 FIRST AID

- Wash affected areas / eyes with copious amounts of water.
- Remove to fresh air / administer oxygen.
- Artificial respiration.
- Give copious drinks of water.
- Do not induce vomiting.
- Induce vomiting.
- Remove contaminated clothing.

17.16 SPILL NEUTRALISATION

- Collect leaking liquids in sealable and leak proof containers and absorb spilled liquid in sand or inert absorbent and remove to safe place. Wash remainder with water.
- Collect leaking liquids in sealable and leak proof containers and absorb spilled liquid in sand or inert absorbent and remove to safe place.
- Place leaking cylinder with the leak upside to prevent escape of chemical and remove cylinder to safe place.
- Neutralize with chemically basic substance such as soda ash or slaked lime. Wash remainder with plenty of water.
- Sweep spilled substance. Wash off remainder with water. Seal all wastes in vapor tight plastic bags for disposal.
- Neutralize with chlorine bleaching liquor. Dampen spilled material with alcohol to avoid dust. Remove to safe place and wash remainder with water.
- Neutralize with NH₃ gas.
- Do not use water, use sand or earth.

17.17 INSTRUMENTATION AVAILABLE

- Explosive meter cum Oxygen Meter
- Instrument calibration system provided
- LEL meter
- LUX meter
- Smoke Detector

17.18 BUILDING

Stability certificates for the buildings obtained.

17.19 CONTINUOUS SURVEILLANCE OF OPERATIONS

17.20 MAINTENANCE AND REPAIR WORK

Following safety systems (Preventive) are in use :

- . Restricted smoking
- . Preventive maintenance program
- . Work permit system
- . Safe operating
- . Training

17.21 MAINTENANCE AND REPAIR WORK

Following safety systems (Preventive) are in use :

- . Restricted smoking
- . Restriction of mobile use in factory premises.
- . Preventive maintenance program
- . Work permit system
- . Safe operating procedures (SOPs)

18.0 COMMUNICATION FACILITIES

18.1 IMPORTANT TELEPHONE NUMBERS

List of Emergency Squad Members

Sr. No.	Name	Contact No
1	Mr.GANESH PATIL	9890502966
2	Mr.SHASHIKANT PATIL	9226941692
3	Mr.RAJESH DWIVEDI	9921514434, 9136014432
4	Mr.SHARAD SURYAWANSHI	7709189783
5	Mr. ABHIJIT CHOUGULE	9834951022
6	Mr.AKASH PATIL	8888336807
7	Mr.KUNAL PHATAK	8698706905
8	Mr.RAJU PANDAY	9289470058
9	Mr. K. D. SHINDE	02525-275389, 7798728836
10	Mr.VIJAY SINGH	02525-271616, 9765152533
11	Mr.D.L PATIL	09923575439
12	Mr.KAILASH BHANGALE	09970769686

18.2 EMERGENCY SERVICES

GOVERNMENT AGENCIES		
1	Mr. MANISH SAWANT (Fire Officer) MIDC Tarapur	9768990444
2	Fire Brigade, MIDC Tarapur	101
3	Police Station – Boisar	100
4	DISH Office , Vasai	0250-2332618
5	Mr. N. A. Devraj - Joint Director - DISH	0250-2332618
6	MPCB. Tarapur	02525-273314
7	Mr. Tanaji Patil, MPCB (Field Officer)	9850618963
8	Mr. Gakwad, SRO, MPCB, Tarapur	9870217738

18.3 KEY PERSONNEL OF THE FACTORY :

Technical Persons:-

Sr. No.	Name	Contact No
1	S.K. Tiwari	9819165015 / 28964017
2	P. K. Singh	9765760561
3	D. L. Patil	9923575439
4	Satish Dige	9011681798

LIST OF KEY PERSONS FROM FACTORY

Sr. No	NAME	Contact No.
1	Naresh Salgiya	07738099255/ 9860384233/ 02525 - 261444
2	L. N. Verma	9860702331
3	Rajesh Dwivedi	9921514434
4	Sharad Suryawanshi.	7709189783
5	Abhijit Chougule	9834951022
6	Akash Patil	8888336807

LIST OF KEY PERSONS FROM HO

Sr. No	NAME	Contact No.
1	Shri.Ashok M Saraf Corporate Office: 501,Waterford, Building,"C" Wing, C.D.Barfiwala Marg, (Juhu Gully), Andheri(W). Mumbai-400 058	022-42184218 022-61285566
2	Mr. Sanjay Mangave	9969323968
3	Mr. Ashok Nanda	9820787619
4	Mrs. Philomena	9821228155

19.0 FIRE FIGHTING RESOURCES.

19.1 FIRE EXTINGUISHER : List is attached separately as Annexure “A”

19.2 FIRE HYDRENT SYSTEM :

19.3 WATER STORAGE :

S. N.	Tank	MOC	Capacity
1	Above Ground Fire water storage tank	RCC	400 KL

19.4 WATER SUPPLY SOURCE : Water is available from MIDC.

19.5 EMERGENCY POWER : DG set is provided

19.6 During Emergency if power failure , DG pump is available.

19.7 FIRE TENDER

FIRE TENDER is available at fire station

19.8 LIST OF FIRE FIGHTING TRAINED PERSONS

Sr. No.	Name	Department
1	Mr. Ganesh Patil	Production
2	Mr. Sanjay Gawas	Production
3	Mr. Arjun Kanwal	Administration
4	Mr. Abhijit Chougule	EHS
5	Mr. Kunal Phatak	Administration
6	Mr. P.K.Gharat	Administration
7	Mr. Raju Pandey	Maintenance
8	Mr. Kailash Bhangale	Production
9	Mr. Vijay Singh	Security
10	Mr. Akash Patil	EHS

20.0 MEDICAL FACILITIES

20.1 FIRST AID

One fully equipped first aid box located at security gate near Gate No.3.

20.2 LIST OF THE PERSONS TRAINED IN FIRST AID :

SR. NO.	NAME	Department
1	Mr. Kailash Bhangale	Production
2	Mr. M.D.Gharat	Production
3	Mr. Shashikant Patil	Production
4	Mr. Vipesh Patil	Production
5	Mr. Akash Patil	EHS
6	Mr. Raju Pandey	Maintenance
7	Mr. Nitin G.Amrute	Administration
8	Mr. Arjun Kanwal	Administration
9	Mr. Hemant Patil	RM Store
10	Mr. Rajesh Pimple	Engg. Stores
11	Mr. Ashok Prasad	EDP

20.3 COMPANY DOCTOR

- 1). Dr. Parag Kulkarni.
Ashirwad Hospital/ Clinic
Gosalia Park, Tarapur Road, Boisar,
Ta. Dist. - Palghar.

20.4 HOSPITALS

There is adequate arrangement with local hospitals for any Medical emergency.

SR. NO.	NAME ADDRESS OF HOSPITAL	DOCTOR IN CHARGE	PHONE NOS.
1	THUNGA Hospital, Boisar, MIDC.	Sagar Chauhan Santosh Shetty	02525 270308 08380005941 09029198225
2	Tarapur Atomic Power Station colony hospital, Tarapur	Superintendent	02525 264001 02525 264004
3	CFC building, Tarapur	Dr. K. R. Agilla	02525 272516
4	Boisar Nursing Home	Dr. Mudasar DeeJay Nagar	02525 272191
5	TAPS – BARC hospital		02525 264224
6	Vikas Hospital	Dr. Vikas Patil	02525 698893 09822970626
7	Saileela Hospital	Dr. Jitendra Patil	09960449571
8	Sanjivani Hospital	Dr. Bhanushali	09226877450

21.0 LIST OF MATERIAL SAFETY DATA SHEET

(THE COPY OF MSDS ARE SEPERATELY KEPT IN EMERGENCY CONTROL ROOM, R&D DEPARTMENT, PRODUCTION DEPARTMENT & QUALITY CONTROL DEPARTMENT)

A]	LIST OF RAW MATERIAL
1	Chloro Benzene (Comm)
2	Toluene (Comm Grade)
3	Methanol
4	Hydrochloric Acid 35%
5	Benzene
6	Caustic Soda (Lye)
7	Cyanuric Chloride 99%
8	Resorcinol
9	Biphenyl
10	Benzonitrile
11	Aluminum Chloride anhydrous
12	Ethyl Mercaptan
13	DMF
14	Chlorine Gas
15	Phosphorous trichloride
16	Hydrogen peroxide
[B]	LIST OF FINISHED GOODS
1	Ven-2 Step- 1(CG42-1096)
2	Ven-2 Step II (CG35-0284)
3	Ven-2 Step III (CG35 -1597 PAP-S)
4	Ketoprofen Nitrile
5	Alpha Chlorolose
6	5-Ethyl-pyridine Ethanol
7	4-Bromo -2-Fluoro biphenyl
8	Aminodiphenyl Methane
9	Benzophenon Imine
10	2,4 , Thiozoldindion
11	TDA
12	Irgafoss 12

22.0 OFF SITE EMERGENCY PLAN

Need Of The Off-Site Emergency Plan:

A major accident, major emergency and disaster are defined.

They may affect areas outside the site, depending upon the severity of the emergency. Perhaps the most significant risk to outside areas is that associated with a large Release of toxic vapors. It may be necessary to prepare in advance simple charts or tables relating to the likely spread of the vapors cloud taking into account its expected buoyancy, the local topography and all possible weather condition during the time of Release.

The fact of a major emergency and the spread or potential spread of its effects outside the work may require that road and rail traffic past the site has to be halted or diverted. the next effect can be for those who have a real need to get to the site including the key Personnel and outside agencies, who have been called out.

The Offsite emergency plan is made based on the events, which could affect people and the environmental outside the premises.

The Off-site plan is largely a matter of ensuring co-ordination of existing services and their readiness, as far as possible, for the specific hazard and problems, which may arise in an incident. This means that key personnel have been given identified, their duties Defined and proper training achieved. Emergency control centre exists. Thus in brief, the two main purposes of the off-site emergency plan are:

A) To provide the local /District Authorities, Police, Fire brigade, Doctors, surrounding industries and the public, the basic information of risk and environment impact assessment and to appraise them of the consequences and the protection / Prevention measure and control plans and to seek their help to communication with the public in case of a major emergency.

B) To assist the District Authorities for preparing the Offsite emergency (contingent) plan for the district or particular area and to organize rehearsals from time to time. And initiate corrective action based on the lessons learnt.

22.1 Structure of the Off-Site Emergency Plan:

It includes the following:

- a. Organization Set up Chief Disaster controller Site Controller, Incident controller and coordinator etc.

b. Communication facilities :

List of key telephone Nos, Senior Technical Persons nos

c. Specialized Emergency equipment -Fire Fighting Equipment like Fire Extinguisher, Fire Hydrant system, S.C.B.A Set, Eye wash shower, Cl₂ Emergency Kit, Water mist nozzle, Fire cutter nozzle, Foam nozzle, Water monitor trolley.

d. Specialized knowledge - Trained First Aider available Details on Page no.50.

e. Voluntary organization - Details of the organization etc.

f. Chemical information –Hazards associated with the materials handled

g. Meteorological information- Weather condition, Wind velocity etc.

h. Public information - Arrangement for dealing with Media Press, Informing relatives etc.

i. Assessment- Collecting information on the causes of the emergency reviewing.

22.2 Role of the Factory Management:

The On-site and Off-site plans are developed so that the emergency services are summoned at the appropriate time and provided with accurate information and a correct assessment of the situation.

22.3 Role of the Emergency Co-Ordination Officer (ECO):

The various emergency services will be co-ordinated by an emergency Co-ordination officer (ECO) who is likely to be collector. The ECO will liaison closely with the site main controller.

22.4 Role of the Local Authority:

Generally, the duty to prepare the off site plan lies with the local Authorities. they may have appointed an Emergency planning Officer (EPO) to carryout this duty as part of the EPO's role in preparing for a whole range of different emergency within the local authority area.. the EPO will need to liaise with the site to obtain the information to provide the basis for the plan ,this liaison will need to be maintained to ensure that the plan is continually kept up-to-date. EPO has to ensure that all those organization which will be involved offsite in handling the emergency know of their role and able to accept by having sufficient staff and equipments.

EPO has to organize rehearsals for off site plan. It will be the duty of the local authority to inform public, rail /road traffic, news media etc. while operating Offsite plan.

22.5 Role of Fire Authorities:

The control of a fire is normally the responsibility of the senior fire Brigade Officer who would take over the handling of the fire from the incident controller on arrival at site. He will also have a similar responsibility for other event, such as explosions or toxic release. they should have familiarized themselves with the location of site , water and other fire fighting equipments.

22.6 Role of the Police & Evacuation Authorities:

The overall control of an emergency is normally assumed by the police with a senior office designated as emergency co-ordinating officer .formal duties of the police during an emergency including protecting life and property and controlling traffic movements. Their functions include controlling and evacuating the public, identifying the dead and deal with casualties and informing relatives of dead or injured.

For evacuation, an early decision will be required in many cases and the advice to be given to people living 'within range' of the accident in particular whether they should be evacuated to safe place or told to go indoors. in the latter case, the decision can regularly be reviewed in the event of the escalation of the incident the shelters for evacuated person and their welfare shall also be arranged.

22.7 Role of the Health Authorities:

Health Authorities including Doctors, Surgeons, Hospitals, Ambulance and so on. They have a vital part to play following a major accident and they should form an integral part of any emergency plan.

Major Offsite incident are likely to require medicals equipment and facilities additional to those available locally and a medicals mutual aid scheme should exist to enable the assistance of neighboring authorities to be obtained in the event of an emergency.

22.8 Role of the 'Mutual Aid' Agencies:

Various types of mutual aid available from the surrounding factories and other agencies should also be utilized as per need.

The factory Inspectors are likely to want to satisfy themselves that the organizations responsible for producing the ON/OFF site plan has made adequate arrangements for handling emergencies of all types. They wish to see well documented procedures and evidence of exercises undertaken to test the plan.

In the event of an accident, the factory Inspector will assist the District emergency Authority for information and help in getting mutual aid from surrounding factories.

They may wish to ensure that the affected areas are rehabilitated safely. In addition, they may require items of plant and equipment essential for any subsequent investigations to be impounded for expert analysis and may also want to interview witness as soon as practicable.

23.9 Off-site Emergency:-

If the accident is such that it affects inside the factory are uncontrollable and it may spread outside the factory premises, it is called as Off-site Emergency.

Objectives:-

The main objectives of an emergency plan are-

- a. To control and contain the incident/ accident and if possible, eliminate it and
- b. To minimize the effects of the incident on person, property and environment.

On site emergency plan incorporating details of action to be taken in case of any major accident/ disaster occurring inside the factory. The plan should cover all types of major accident/ occurrences and identify the risk involved in the plant. Mock drills on the plan is carried out periodically to make the plan foolproof and persons are made fully prepared to fight against any incident in the plant.

Siren for Emergency:

Siren for emergency is different from the normal siren. The emergency siren is audible. The emergency siren is used only in case of emergency.

Escape Route:

The escape route from each and every plant is clearly marked. The escape route is the shortest route to reach out of the plant area to open area, which leads to assembly point. This route is indicated on the layout plan attached to the On-site Emergency Plan.

Evacuation:

All non-essential staff should be evacuated from the emergency site. As soon as the emergency siren rings the workers have to shut down the plant (As per process)and move to the assembly point. The plant shut down procedure in case of emergency is prepared and kept ready and responsible person should be nominated for the purpose.

Counting of Personnel:

All personnel working in the plant is counted. Time office person should collect the details of personnel arriving at the assembly point. These should be checked with the attendances of regular workers, contract workers present in the site on the day of emergency. The accident control is informed and arrangement should be made for searching missing person in the emergency affected area. The employees' address, contact number of next to kin is maintained in the time office so that during emergency relatives of those affected due to emergency may be informed accordingly.

Information in respect of emergency is given to the media and other agency.

All Clear Signal:

After control of emergency the Site Controller will communicate to the Chief Disaster Controller (CDC) about the cessation of emergency. The CDC can declare all clear by instructing the time office to sound "All Clear Sirens".

Mutual Aid System:

Mutual aid scheme is introduced among industries so that in case of emergency necessary help from mutual aid partner may be extended.

Essential elements of this scheme are –

- Mutual aid must be a written document signed by the Chief Disaster controller of the industries concerned.
- Specify key personnel who are authorized to give requisition of materials from other industries.
- Specify the available quantity of material/equipment that can be spared.
- Mode of requisition during emergency.
- Mode of payment/ replacement of material given during an emergency.
- May be updated from time to time based on experience gained.

Mock drills on emergency planning is conducted once Quarterly and sequence of events should be recorded for improvement of the exercise. Exercises on On-site Emergency Planning should be monitored by CDC and the high officials of the organization and the plan is reviewed every year.

Emergency facilities:

The following facilities is provided in factory to tackle any emergency at any time.

1. Fire protection and fire fighting facilities.
2. Emergency lighting and DG Set..

3. Emergency equipment and rescue equipment –
 - i. Breathing apparatus with compressed air cylinder.
 - ii. First aid kit.
 - iii. Stretchers.
 - iv. Torches.
4. Safety Equipment –
 - i. Respirators.
 - ii. Safety Shoes.
 - iii. Safety helmets.
 - iv. Rubber hand gloves.
 - v. Goggles and face shield.
 - vi. Explosive cum Oxygen meter.
 - vii. Wind direction indicator.
 - viii. SCBA Set
 - ix. Different type of Fire hydrant nozzle.
 - x. AFFF Foam
 - xi. Fire Extinguisher

Off-site Emergency Plan:

The main objective of the plan are –

- i. To save lives and injuries.
- ii. To prevent or reduce property losses and
- iii. To provide for quick resumption of normal situation or operation.

Risk Assessment:

Following the Risk assessment is most essential before preparing any off site emergency plan & which is consider at time of offsite emergency plan. Hazardous factories and their hazard identification, other hazard prone areas, specific risks, transportation risk, storage risks, pollution risks by air and water pollution, such as disasters, natural calamities, acts of god, earthquake, storm, high wind, cyclone, flood, heavy rain, lightening, massive infection, heavy fire, heavy explosion, heavy spill, toxic exposure, environmental deterioration etc., risks from social disturbances, risks from the past accidents must be considered while carrying out risk assessment for a particular area(district) from which the offsite emergency plan is prepared.

Central Control Committee:

As the offsite plan is to be prepared by the Government, a Central Control Committee shall be formed under the Chairmanship of the District Collector. Other officers from Police, Fire Service, Factory Inspectorate, Medical Department shall be incorporated as members of the Central Control Committee. Under the Central Control Committee the following committees shall be constituted under the control of the District Collector.

- i. Incident and Environment Control Committee.

- ii. Fire Control Committee.
- iii. Traffic control, Law and order, Evacuation and Rehabilitation Committee.
- iv. Medical help, Ambulance and Hospital Committee.
- v. Welfare, Restoration and Resumption Committee.
- vi. Utility and Engineering Services Committee.
- vii. Press, Publicity and Public Relations Committee.

The Off-site Emergency Plan shall be prepared by the District Collector in consultation with the factory management and Govt. agencies. The plan contains up to date details of outside emergency services and resources such as Fire Services, Hospitals, Police etc. with telephone number. The district authorities are to be included in the plan area.

- a. Police Department.
- b. Revenue Department.
- c. Fire Brigade.
- d. Medical Department.
- e. Municipality.
- f. Gram panchayat.
- g. Railway Department.
- h. Telephone Department.
- i. Factory Department.
- j. Electricity Department.
- k. Pollution Control Department.
- l. Explosive Department.
- m. Press and Media.

Mock exercises on Off-site plan should be carried out at least once in a year to train the employees, up to date the plan, observe and rectify deficiencies.

Possible Hazards and Severity

The Complete study of chemicals stored, used, transported & manufactured in these units reveals that the hazards associated with these chemicals can be broadly classified into four categories ;

Fire

Explosion

Asphyxiation

Toxic release

Exposure to cryogenic liquid (Severe frost bite / cold burn can result when cryogenic liquid spills due to explosion) For details please refer the enclosed Material Safety Data sheets annexure.

Sr. No.	Name of hazardous Material	Mode of storage Tank	Location	Hazard associated.
01	Toluene	Underground storage cs tank.	Solvent Tank farm area	Fire (Flammable)
02	Methanol	Underground storage cs tank.	Solvent Tank farm area	Fire (Flammable)
03	M.C.B.	Overhead storage Tank.	Backside of Plant-2 Area.	Fire (Flammable)
04	Ethyl Mercaptan	Overhead capsule type Jacketed storage tank	Near Solvent Tank farm area	Fire (Flammable)
05	Furnace oil	Overhead storage Tank	Near cooling Tower of plant-1	Fire (Flammable)
06	HCL. Acid (30%)	HDPE Storage tank.	Backside of Plant-2 Area.	Corrosive.
07	Caustic lye	Overhead storage tank.	Terrace of plant-1	Corrosive
08	Cl ₂ Tonner	Cl ₂ Tonner	Near Plant-2 Cl ₂ Charging manifold.	Toxic & asphyxiation after leakages of Gas.
09	Dry HCL Cylinder.	Cylinders	Storage near F.G area.& at 15m level of plant-2	Toxic if release in air.
10	Phosphorous trichloride	Drum	20 mt area	Corrosive

DISCLAMER :

Information contained in this material data sheet is believed to be reliable but no representation , guarantee or warrantees of any kind are made as to its accuracy , suitability for the particular application or results to be obtained from them . It is up to the manufacturer /seller to ensure that the information contained in the material safety data sheet is relevant to the product manufactured/handled or sold by him as the case may be . We make no warranties expressed or implied in respect of the adequacy of this document for nay particular purpose.

REPORT ON

SAFETY AUDIT

AS PER IS14489:1998

FOR

SAREX OVERSEAS

(A DIVISION OF SARAF CHEMICALS PVT LTD)

N-129 TO N-132, MIDC, TARAPUR, BOISAR-401506

Prepared by

PROTECCT INDUSTRIAL SERVICES

In SEPTEMBER, 2020

SAFETY AUDIT

AUDITEE: SAREX OVERSEAS

(A division of SARAF Chemicals Pvt Ltd).

N-129 TO N-132, MIDC, TARAPUR, BOISAR-401506.

PRESENT:

Mr. D.L.PATIL (SR.GM- PRODUCTION)

Mr. LAXMINARAYAN VERMA (SR.GM-Q.A. & COMPLIANCE)

Mr. RAJESH KUMAR DWIWEDI (GM-HR & ADMIN)

Mr. MUKESH AGRAWAL (GM- ACCOUNTS)

Mr. SATISH DIGE (GM- PROJECTS & MAINTENANCE)

Mr. PURSHOTTAM SINGH (AGM- PRODUCTION)

Mr. KAILAS BHANGALE (AGM- PRODUCTION)

Mr. KUNDALIK SHINDE (AGM- PRODUCTION)

Mr. SHIVAJI BHILARE (AGM- QC)

Mr. RAHUL PATIL (AGM- MAINTENANCE)

Mr. NITIN AMRUTE (MANAGER- ADMIN)

Mr. SHARAD SURYAWANSHI (MANAGER – EHS)

Mr. VIJAY KHATKE (MANAGER – R & D)

Mr. PAWAN KUMAR TIWARI (MANAGER – R & D)

Mr. HEMANT PATIL (MANAGER – STORES)

Mr. KEDAR PURANDARE (ASST. MANAGER – Q.A.)

Mr. VASIM SHAIKH (SAFETY AUDITOR)

Mr. ASHRAF SHAIKH (ASST.AUDITOR)

AUDIT BY: PROTECCT INDUSTRIAL SERVICES

DATE OF AUDIT: 03rd September To 05th September (03 Days)

METHODOLOGY: IS 14489: 1998

SCHEDULE II

(See rule 8 and 9)

Proforma For Safety Audit Report

1	Name and Address of the Factory	M/s SAREX OVERSEAS (A division of Saraf Chemicals Pvt Ltd) N-129 to 132, MIDC, TARAPUR, BOISAR MAHARASHTRA – 401506.
2	Name of the Occupier	Mr. N.S. SALGIYA
3	Date of Audit	03.09.2020 To 05.09.2020
4	List of raw product with maximum storage quantity	Enclosed
5	List of finished material with maximum storage quantity	Enclosed
6	Manufacturing process flow chart	Enclosed
7	PI Diagram of all plants (Chemical Factories)	Enclosed
8	Name of the Safety Auditor and Certificate No and name of the person who has carried out Safety audit	SHAIKH VASIM G MS/ISAH/SA/S-009/2019
9	Whether enclosed Safety Audit report as per IS14489 or any such standards prevailing at the relevant time whichever is latest	Yes. Audit conducted as per IS14489

05.09.20

Date



Vasim
Signature of Safety Auditor

I (Occupier) undertake to submit the action taken report on recommendation of

Audit on or before... 28/10/2020.

30/09/2020

Date

Daya
Signature of Occupier

DISCLAIMER:

This report has been prepared by Protecct Industrial Services, Pune with all reasonable skill, care and diligence within the terms of Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

The audit report has been prepared on the basis of the information made available by the client and available resources. Further effectiveness of this audit is beyond control of maker of this audit subject to changes in the facilities available, changes in manufacturing process/products or any other criteria.

- I N D E X -

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SAFETY AUDIT REPORT

PREFACE

An audit is a technique designed to ensure that the standards achieved at any place of work and other places affected by work activities conform closely as possible to objectives specified by the management of the factory for control of the risk of injury and ill health, damage to property, plant, equipment and their environment and to provide the information to the management to justify continuation of the same strategy or a change of course.

Safety auditing falls under two categories:

- 1) Internal Audit
- 2) External Audit

The enclosed Safety Audit Report of **M/S. SAREX OVERSEAS,N-129 TO N-132, MIDC, Tarapur, Boisar -401506, Maharashtra** is based on the Audit carried out by an external independent professional organization in the month of **SEPT, 2020**. This report has been prepared after visual inspection of the plant; study of related records, reports, references and technical information presented by the management and subsequent discussions with the technical staff engaged in operation & maintenance of the plant. The officials of the plant gave wholehearted co-operation during field study and compilation of the report. All observations could be made freely.

Protecct Industrial Services, Pune wishes thank to **Mr. N.S.SALGIYA (PRESIDENT)** for giving the opportunity to carry out the job of Safety Audit. And we are sincerely thanking to all Managers, Executives and their colleagues for their full time cooperation during the audit process.

EXECUTIVE SUMMARY

At the request of **M/S. SAREX OVERSEAS**, Safety Audit of their factory at N-129 TO N-132, **MIDC, Tarapur** was carried out on 03RD SEPT, 2020 TO 5TH SEPT 2020. The objective of the audit is to find out Occupational Health and Safety system in the unit and identify the short comings in the system and suggest the corresponding corrective actions.

01. Safety and Health Policy of the company has been in place. The awareness regarding safety policy at the shop floor should be strengthened.
02. This Safety & Health policy of the company covers all aspects of safety required during Operation & Maintenance of the plant, commitment towards statutory compliances & awareness to the employees and surrounding inhabitants.
03. Workers exposed to hazards during handling and processing of various products are provided protective clothing and safety appliances. Usage of personal protective equipments is to be ensured.
04. Probabilities of failure & unsafe conditions of the plant are all taken care of by maintaining the machines and equipments in efficient running condition and good housekeeping, However, scope exists for bringing improvement in these areas.
05. Examination & testing of pressure vessels and lifting machines, tools & tackles are conducted regularly by the competent person as per statutory provision.
06. Electrical Installations are as per standard specification & codes.
07. Routine & running maintenance of the plant are carried out as per schedule & safety regulations provided in general safety rules of the company.
08. Portable fire extinguishers has been provided in different locations of the plant and periodically checked for proper functioning.
10. All machines and equipment needs to be guarded adequately and to be maintained in efficient running condition. Probabilities of failure and breakdown of the critical machines are taken care of by adopting preventive maintenance schedule on regular basis.

12. Attention is required to be paid on:-
 - a. Display of more Safety work instructions in local language.
 - b. Display of Hazard Communication Sheets of hazardous chemicals used for better visibility in local language.
 - c. Compliance related to all provisions as per schedule XII & XXIII as per Maharashtra Factories Rules 1963.
 - d. Trainings of senior management personnel's on safety & health.
 - e. Periodic training on emergency preparedness to be conducted for all employees.
13. Safety performance of plant needs to be improved. Accidents which can be further controlled by adopting following methods:
 - a. Training need identification matrix to be prepared and accordingly all employees to be trained.
 - b. Hazard identification is to be carried out for all shops periodically.
 - c. The Line managers / production departments should play pro-active role in improving safety scenario of the factory by involving themselves more in the shop safety activities, suggesting and implementing solutions to the safety related issues on daily basis.
 - d. Periodic training on work permit system to be conducted for contract employees.
 - e. Practical scenarios to be considered for Mock drills such as Chemical tanker unloading hose rupture, leakage of chemical from corroded pipe lines etc.

SECTION - 1

- **INTRODUCTION :**

Sarex Overseas is engaged in manufacturing of Fine Chemicals & Textile Auxiliaries.

The manufacturing facility is situated in the chemical & pharmaceutical manufacturing zone of the Maharashtra Industrial Development Corporation (MIDC) at Tarapur, which is about 120 Kms from Mumbai in India. The facility is constructed as per the statutory and regulatory norms.

- **PROCESSES FLOW CHART – List attached separately to the report.**
- **LIST OF RAW MATERIALS – List attached separately to the report.**
- **LIST OF FINISHED PRODUCTS - List attached separately to the report.**

NEED FOR SAFETY AUDIT:

1. Factory Act Section 7A – General duties of the occupier to ensure the health, safety and welfare of the workers while they are at work in the factory.
2. Maharashtra Safety Audit Rules 2014
3. The site having handling and storage of various chemicals.

This audit exercise is carried out as per guidelines of Indian Standard **IS14489:1998** for code of practice on Occupational Health and Safety Audit.

THE ASSIGNMENT:

Protecct Industrial Services, Pune is a consultancy organization in the field of Industrial Safety and undertakes assignments like safety audit, Risk Analysis, HAZOP Study etc. on regular basis. It has high standing in the field since last many years in Maharashtra. Top management of **M/S SAREX OVERSEAS** willing to carry out this safety audit and after discussions, engaged the services of **Protecct Industrial Services, Pune**.

- **AUDIT METHODOLOGY :**

Safety Audit has been conducted during **SEPT, 2020** for the site safety systems. The scope and methodology to be adopted for audit was discussed and agreed during the opening audit meeting. The time schedule was finalized for document verification and plant visit.

Audit method and procedure to conduct the audit is as per the Indian Standard **14489:1998** and the guidelines given under **ISO 45001:2018**. The methodology is as explained in Chapter 4 of the subject IS code. The same was also explained to the auditee's senior management. Evidence for the Audit is collected through discussions with plant personnel, records & documents available with the company, their verification, observation of processes & activities and conditions existing at the site. Clues, suggestions, non-conformities are hold if they were seen significant, even though not covered by the checklist.

As the purpose of audit is not to comprehensively check implementation of each system element, sample test check information is collected for the implementation of each element of the safety systems. However, recommendations are not only to correct the observed non-conformities, but the implementation of the element as a whole. The audit was conducted covering General shift, to observe the operations and existing conditions.

The employees were interviewed and discussions were held with department heads. A positive attitude was observed and commitment towards safety was seen during such discussions.

Closing meeting was held with the senior management. The Audit recommendations were discussed with concerned department personnel.

Records of the evidence collected and the notes of the meetings are maintained. We appreciate the positive approach shown by the management of M/S. SAREX OVERSEAS and express our sincere thanks to all staff of the company for the co-operation extended to us to complete the assignment in scheduled time.

SECTION - 2

- **OBJECTIVES :**

2.1 AUDIT OBJECTIVES:

Safety Audit is an important tool for identifying falling standards, areas of risks or vulnerability hazards and accident potential in proposed and existing plants and processes, for determining the actions necessary to remove hazards before personal injuries or damage occur.

The loss potential, in the industry is always high and is not restricted only to large scale incidences like accidents, fires, spillage of hazardous chemical, explosions, toxic gas release etc. but minor issues like failure or damage of instrumentation or equipment may lead to lengthy down time of plant, resulting in heavy financial loss. Also loss potential is not concerned with the production.

This audit is conducted with the following objectives.

- To carry out a systematic critical appraisal of all potential hazards involving personnel, plants, services and operation method.
- To ensure that SAFETY SYSTEMS fully satisfy the legal requirements and those of company's written safety policies, rules, objectives and progress.

The following aims were set for the Audit Team -

1. To examine and evaluate the accident prevention measures
2. To analyze the safety procedures, systems and practices
3. To observe the working conditions and operating methods, including storage/handling of raw materials / finished products
4. To pinpoint occupational health hazards
5. To check the adequacy of fire fighting arrangements
6. To study the waste disposal arrangements
7. To comment upon various statutory compliance.

2.2 AUDIT GOALS:

- To provide the auditee with an opportunity to assess its own SAFETY system standard and identify areas for improvement
- To determine the conformity of the implemented OS & H system with specified requirements and identify areas for improvement
- To meet statutory requirements

SECTION - 3

- **SCOPE OF STUDY :**

The scope of the audit was restricted to the factory unit of **M/S. SAREX OVERSEAS, N-129 TO 132, MIDC, TARAPUR, BOISAR– 401506** for present site activities only.

The scope of this audit was discussed and finalized in the opening meeting with the Audit Team and the Management of the company. The schedule of the audit was circulated to all concerned auditee. It was emphasized that following aspects are to be looked into detail while carrying out the Safety Audit.

- Handling and storage of different chemicals.
- Training and awareness.
- The PPE awareness.
- Utility Maintenance and Operation.
- All Manufacturing activities in shops & storage areas.
- Safety systems.
- Statutory compliance.
- Emergency preparedness.

These points were the thrust areas from the point of view of Audit team during its plant visit.

SECTION - 4

- **AUDIT METHODOLOGY :**

4.1 The Indian Standard **IS 14489:1998** is used as basis for this audit.

4.2 Guidelines given under **ISO 45001:2018**

4.3 Safety Audit subjects each area of company's activity to a critical appraisal of all potential hazards. Every component of the total system is included e.g. policy attitudes, training, features of the process and design, layout of the plant, operations, emergency plans, personnel protection, accident records etc.

4.4 The following activities are carried out in conducting Safety Audit.

Preliminary review is carried out of company's description and specified requirement of SAFETY system as a basis for planning the **Safety Audit**. The opening meeting took the review for adequacy of the company's specified requirements and recorded description of the methods for meeting the OS & H system requirements such as the safety manual or equivalent.

While it was desirable to have a well-defined set of specified requirements and recorded description, in their absence; audit was conducted with reference to legal requirements and concerned Indian Standard Code.

4.5 **AUDIT PLAN:**

The Audit plan was finalized after consultation with the company authorities and circulated to auditees. Questionnaire of preliminary information about various elements of safety system was prepared. This was to be filled in by the company and returned for study by the audit team before the field visits.

The plan includes:

- The audit objectives and scope.
- Identification of reference documents (such as the applicable SAFETY system standard and the company's description and specified requirements of their safety system).
- Size of the audit team
- Identification of the organizational units to be studied

- The schedule for audit activities
- The schedule of meetings to be held with company's management
- The list of documents to be persuaded by the audit team

Information about various elements of safety system was prepared. This was to be filled in by the company and returned for study by the audit team before the field visits.

Working documents: The documents required facilitating the auditor's investigations and to document report, results included:

- Checklist used for evaluating SAFETY system elements
- Forms for documenting supporting evidence for conclusions
- Working documents that do not restrict additional audit activities or investigations, which may become necessary as a result of information gathered during the audit.
- Working documents involving confidential or proprietary information were suitably safeguarded by the auditing team.

4.6 **ELEMENTS OF OCCUPATIONAL SAFETY AND HEALTH SYSTEM:**

1. Occupational Safety and Health policy
2. SAFETY organizational set-up
3. Education and training
4. Employee's participation in SAFETY Management
5. Motivational and promotional measures for safety
6. Safety manual and rules
7. Compliance with statutory requirements
8. Accident reporting, analysis, investigation and implementation of recommendations
9. Risk assessment including hazard identification
10. Safety inspections
11. Health and Safety targets
12. First aid facilities occupational health center

13. Personal protective equipments
14. Housekeeping
15. Machine and General area guarding
16. Material handling equipments
17. Electrical and personal safeguarding
18. Ventilation, illumination and noise levels
19. Work environment monitoring system
20. Prevention of occupational diseases including periodic medical examination
21. Safe operating procedures
22. Work permit systems
23. Fire prevention, protection and fire fighting systems
24. Emergency preparedness plan (on-site/off-site)
25. Hazardous waste treatment and disposal
26. Safety in storage and warehousing
27. Contractor safety systems
28. Safety for customers (including material safety data sheets - MSDS)

4.7 TYPES OF RECORDS TO BE EXAMINED DURING SAFETY AUDIT:

1. Safety policy
2. Safety organization chart
3. Training record on safety, fire and first-aid
4. Record of plant safety inspections
5. Accident investigations report
6. Accidents and dangerous occurrences - Statistics and analysis

7. Record of tests and examinations of equipment and structures as per statute
8. Safe operating procedures for various operations
9. Record of work permits
10. Maintenance and testing record of fire detection and firefighting equipment
11. Medical record of employees
12. Record of industrial hygiene surveys (ventilation, noise levels, illumination levels, airborne substances)
13. Material safety data sheets
14. On site emergency plans and record of Mock Drills
15. Record of waste disposal
16. Record of effluent discharge in the environment
17. Housekeeping inspection
18. Minutes of safety committee meetings
19. Record of modifications carried out in plant or process
20. Maintenance procedure record
21. In service inspection record including that of material handling
22. Safety budget
23. Statutory record

Questionnaire of Preliminary Information about various elements of SAFETY system was prepared.

4.8 **KEY ON - SITE ACTIVITIES:**

1. Understanding management systems, factory processes, plant organization and responsibilities, compliance parameters and other applicable requirements
2. Plant visits, discussions with management personnel, supervisors, workers and other Factory Personnel.
3. Specially designed internal controls questionnaire
4. Assessing Strengths and Weaknesses
5. Collecting Audit Evidence, Records, Reviews Examination of available data, applicable codes and standards, detailed plant descriptions such as piping and instrumentation drawings, flow chart, procedures for start-up, shut down, normal operation and emergencies; personnel injury reports; hazardous incidence reports; maintenance records, such as critical instrument checks, pressure relief valve tests, pressure vessel inspections; process material characteristics.
6. Plant visit observations

As the purpose of audit is not to comprehensively check implementation of each.

Safety system element; sample/test check information is collected for the implementation of each element of the SAFETY system, However recommendations are not only to correct the observed non-conformities, but the implementation of the element as a whole.

Also observations made for the below areas as

- Spillage of materials on floor
- Machinery guarding
- Lighting
- Excess noise
- Ventilation
- Earthing continuity - jumpers and bonding
- Short cuts
- Non wearing of personal protective equipment
- House keeping

- Not following the safety rules
- Lack of class room for training and on the job training
- Improper safety awareness system, lack of motivation
- Evaluating audit evidence
- Reporting audit findings

The desired end result of any SAFETY audit is the identification of primarily unrecognized hazards in the light of experience and early recognition of shortcomings in the areas such as the maintenance and testing of critical equipment.

The recommendations made are of two types:

1. For improvement in the system's specified requirements
2. For more effective implementation of the specified requirements of the system

Purpose of the closing meeting with the Company authorities was to present audit observations and recommendations to the senior management in such a manner so that the results of the audit are clearly understood by the auditee

4.9 POST AUDIT ACTIVITIES:

- Action plans and follow-up

SECTION - 5

- **REFERENCE DOCUMENTS CHECKED :**

Sr. No.	DESCRIPTION
1	The company's Safety policy
2	Safety organization chart.
3	Production Process schematic flow.
4	Training records on safety fire and first-aid
5	Record of plant safety inspections format.
6	Accident Report
7	Accident investigations reports format
8	Record of tests and examinations of equipment and structures as per statues.
9	Index of Pressure Vessels & Pressure Vessels Certificate
10	Safe operating procedures for various operations.
11	Safety Training Calendar for the year 2020-21
12	Record of work permits
13	Record of monitoring of flammable and explosives substances at Workplace
14	Maintenance and testing records of fire detection and firefighting equipment
15	Medical records of employees.
16	Records of industrial hygiene surveys (noise, ventilation and levels, illumination levels, airborne and toxic substances, explosive gases).
17	Material safety data sheets
18	On site emergency plans and record of Mock Drills.
19	Records of waste disposal.
20	Housekeeping inspection records
21	Minutes of safety committee meetings
22	Approval of layouts from statutory authorities.
23	Records of any modifications carried out in plant or process
24	Maintenance procedure records
25	Calibration and testing records
26	Inspection books and other statutory records

SECTION - 6

- **QUESTIONNAIRE :**
- 6.1 Health and Safety policy
- 6.2 Safety & Health organization
 - 6.2.1 Safety department
 - 6.2.2 Safety committee(s)
 - 6.2.3 Safety budget
- 6.3 Accident reporting, investigation and analysis
- 6.4 Safety inspections
- 6.5 Safety education and training
 - 6.5.1 Training
 - 6.5.2 Periodic and regular training
 - 6.5.3 Safety communication / motivation / promotion
- 6.6 First aid
- 6.7 Occupational health center
- 6.8 General working conditions
 - 6.8.1 Housekeeping
 - 6.8.2 Noise
 - 6.8.3 Ventilation
 - 6.8.4 Illumination
- 6.9 Hazard identification and control
- 6.10 Safe operating procedures
- 6.11 Work permit system
- 6.12 Waste disposal system
- 6.13 Personal protective equipment (PPE)
- 6.14 Fire protection
- 6.15 Emergency preparedness
- 6.16 Plant layout and area classification
- 6.17 Static electricity controls
- 6.18 Pressure Vessels
- 6.19 New equipment review
- 6.20 Lifting machines & tackles
- 6.21 Mobile equipment and vehicular traffic
- 6.22 Access

- 6.23 Material handling
- 6.24 Tank storage vessel area
- 6.25 On site gas cylinder storage area
- 6.26 Communication system Adopted in Plant
- 6.27 Transportation
- 6.28 Road
- 6.29 Rail
- 6.30 Pipelines

6.1 HEALTH AND SAFETY POLICY:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
01	Does the organization has a health and safety policy? (if yes, please attach one copy)	Yes. Copy attached.	Satisfactory.
02	Does the organization has any corporate safety policy? (if yes, please attach one copy.)	Yes.	Existing safety policy is a corporate policy.
03	Who has signed the health safety policy? (indicate his position.) (Managing Director)	Managing Director – Mr.Ashok M. Saraf	Satisfactory.
04	Whether it is prepared as per guidelines of the statutory provisions?	Yes.	The safety policy is prepared as per guidelines of the statutory provisions.
05	When was the safety policy declared and adopted ?	2011	Nil.
06	How many times it has been updated till now?	Policy updated two times.	Last date of updation 18.03.2019
07	Whether the policy is made known to all ?	Yes.	Policy should be translated in local language for better understanding of contract persons.
08	Whether the safety policy was scrutinized by outside expert agency ?	Internal team of experts scrutinize the safety policy.	Satisfactory.
09	What was the last date of updating?	Last date of updation 18.03.2019	Nil.
10	Does it find a place in the annual report ?	Yes.	Satisfactory.

6.2SAFETY & HEALTH ORGANISATION:**A - SAFETYDEPARTMENT:**

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
11	Does the factory has a safety department?	Yes. Factory has a separate safety department.	Satisfactory.

12	If yes, furnish the following information: i) Head of the Safety department: Name Designation Qualification Experience Status - ii) Strength of the safety department including safety officers and staff	1) Mr. SHARAD SURYWANSHI MANAGER - EHS MSC, ADIS 15 Years. 2) 02 Safety officers with EHS manager available.	Nil.
13	Does the head of safety department / safety officer report to the chief executive?	Yes. Safety Manager reports to the President.	Nil.
14	How often are the safety officers trained in the latest techniques of total safety management? What is the frequency of training?	Periodic trainings are provided on different subject matters on monthly basis.	Nil.
15	What additional duties the safety officer is required to do?	To coordinate for training activities.	Nil.
16	What is the power of safety Officer vis-à-vis unsafe conditions or unsafe Actions ?	To investigate the same and to have appropriate corrective actions.(CAPA)	Nil.

B- SAFETY COMMITTEE (S):

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
17	Does the factory has a safety committee(s)? Give details of their types, structures and terms of reference.	Yes. Company has formed a safety committee. Structure is as per MFR 73-J.	Satisfactory.
18	Is the tenure of the safety committee(s) is as per the statute?	Yes	The safety committee members rotated after two years.
19	How are the members of safety committee(s) selected? (elected or nominated)	Members of safety committee are nominated by department head.	Satisfactory.
20	How often are the meetings of safety committee(s) held?	Quarterly.	Verified MOM dated.18.08.2020

21	What are the subjects? Are the problems discussed in the meetings? Attach a copy of agenda and minutes of the last meeting)	The unsafe acts and unsafe conditions of the respective plant along with action plan for the improvement discussed in the meeting	Nil
22	How are the recommendations of the committee(s) implemented?	Depending upon the hazard and risk present, the recommendations are implemented.	The recommendations of the safety committees complied at the earliest.
23	Are the minutes of the safety committee(s) meetings circulated among the members?	Yes.	The information and minutes of meeting are circulated through e-mails.
24	Are the minutes forwarded to the trade union, chief executive of the Company and the occupier ?	Yes.	Major points forwarded to the president of the Company and the occupier.
25	How the management and the trade union play their active roles in supporting and accepting the committee(s) recommendations?	By providing required decisions and CAPEX for execution.	Satisfactory.
26	How are the safety committee(s) members apprised of the latest developments in safety, health and environment?	By continuous discussion on latest safety trends in the industries.	Satisfactory.

C - SAFETY BUDGET:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
27	What is the annual safety budget?	There is separate budget for safety.	Nil.
28	How much percentage is this budget of the total turnover of the company?	Safety budget is 5% of the total turnover of the company.	Nil.
29	How much budget has utilized till date ?	2.4 % has been consumed till date.	Nil.
30	Is the safety budget adequate?	Yes.	Extra Budget approved as per the requirement.
31	How is the safety budget arrived at ?	As per the requirement of site, CAPEX has been approved.	Satisfactory.

32	What is the pattern of expenditure for the last five years ?	On an average 3.5 % of the annual turnover of the company.	Nil.
33	What are the approved sanctions for the expenditure in this budget?	Committee from the top management sanctions the budget.	Nil.
34	Does this budget get reflected in the annual report of the company?	Yes.	Nil.

6.3 ACCIDENT REPORTING, INVESTIGATION AND ANALYSIS:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
35	Whether the accident data for the last three years for reportable and non-reportable accident available?	Yes. Data for last five years available.	Satisfactory.
36	Is there any system of classifying and analyzing the near-miss incidents and accidents? Give the details.	SOP for Near Miss & Accident investigation is in place.	
37	Are all near-miss incidents and accidents reported and investigated?	Yes.	Satisfactory.
38	For how many years, are the investigation reports retained?	Data of last one year verified.	Satisfactory.
39	Who maintains the accident statistics and data ?	EHS dept maintains the data.	Satisfactory.
40	How is the top management apprised of these data ?	By internal communication and meetings.	Analysis and data should be used to develop the training activities and planning the resources in annual budgets.
41	Are the accident statistics effectively utilized ?if yes, how ?	Yes. Discussed during safety committee meetings.	Satisfactory.
42	What nature of injuries occurred during the last three years?	Small injuries like cut injury occurred.	The data maintained effectively.

43	How do you ensure implementation of the recommendations to avoid the recurrence of the incidents and accidents?	Recommendations are discussed in multi department co-ordination meeting.	CAPA implementation ensured by cross functional teams.
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6.4 SAFETY INSPECTIONS:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
44	What type of safety inspections are carried out and what are their frequencies?	Internal inspection carried out by cross functional teams. Frequency – Daily, weekly , Monthly.	Internal Safety Audit on the basis of IS14489 also carried out on yearly basis.
45	Is there any system of internal inspection?	Checklist available for internal inspection.	Satisfactory.
46	Who does the inspections?	Cross functional teams carry out the internal inspection.	Satisfactory.
47	Are the checklists prepared for these inspections? (Specify item wise for example housekeeping, fire protection etc.)	Yes. Checklist available for the internal inspection. 1. Emergency Exits 2. Fire Extinguisher 3. House keeping 4. Earthing Bonding.	Satisfactory.
48	To whom the recommendations are submitted?	Recommendations are submitted to the respective department head and Plant Manager.	Satisfactory.

6.5 SAFETY EDUCATION AND TRAINING:

A - TRAINING:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
49	Is there any training department?	No Dedicated training dept.	QA department coordinate for the trainings.
50	Is there any program of induction training ?	Yes. Induction protocol available for new joinee.	Satisfactory.

51	Mention the duration of induction training for each category of employees ?	Duration of induction training is 2 days. Contract Person – 2 hours.	Satisfactory.
52	Whether the assessment of the trainee worker is done or not ?	Yes.	Satisfactory.
53	What infrastructure facilities with audio-visual support are available for training ?	Conference room with computers.	Satisfactory.
54	Do the programs cover the plant safety rules, hazard communication and any other special safety rules or procedures unique to the plant or specific departments?	Yes.	Satisfactory.
55	Whether the training programs are conducted in the local language?	Yes.	Satisfactory.
56	Whether visits to safety institutions/ organisations are arranged?	No.	Nil.

B - PERIODIC TRAINING / RETRAINING :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
57	Are all the employees trained, and what is the frequency of such training ?	Yes.Training schedule available. Frequency is Monthly.	Verified document no. SF/DOC/16
58	Do the training programs cover safety and health aspects and if so how much (in terms of number of sessions/hours)	Yes. Training program covers safety and health aspects.	Training program should cover the safety and health aspects in details.
59	Do the trained supervisors train their own employees in safety and health aspects?	Yes.	Nil.
60	Is the retraining performed whenever new hazards / process changes are followed/introduced?	Yes.	Satisfactory.

61	How are the senior management personnel trained in safety and health?	Senior management persons trained by corporate training programmes.	Senior management persons should be trained as per site training schedule.
62	How many employees have been trained in safety and health in the last five years ? Give break up with details.	Records are maintained in soft. Attendance sheet maintained.	Satisfactory.
63	How many man-days / hours are used in training the employees ?	Based on the training needs identified, it is decided.	Satisfactory.
64	How do you ensure that the training is put to use by the employees trained in safety and health ?	By continuous supervision at shop floor.	Satisfactory.
65	What is the training plan for the next two years ? Give details.	Training plan will be prepared as per identified trainings.	Satisfactory.
66	What documentation system has been established?	Training attendance & Assessment records maintained.	Satisfactory.

C - SAFETY COMMUNICATION / MOTIVATION / PROMOTION:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
67	Does the factory have safety suggestion schemes? Give details.	Yes.	Good practice.
68	Does your factory been awarded during last five years ?	No.	Nil.
70	Are safety contests organized in the factory ? Give details.	Yes.	Safety Quiz, Safety slogans competition organized in the factory.
71	What are the publications of your organization ? Do they include information on safety and health subjects ?	Safety publications from the external institutes available	Nil.
72	Is the literature on safety and health made available to the employees ?	Yes. Literatures from National Safety Council available.	Satisfactory.

73	How is the safety and health publicized in your-factory ? Bulletin boards? Post serious accidents ? News letter ?Others ? Specify.	Notice boards are used to distribute any significant information.	Satisfactory.
74	Does the organization celebrate safety day / week or organize safety exhibition?	Yes.	It is good practice.
75	When was the last safety day / week celebrated?	March 2020	Satisfactory.

6.6 FIRST AID:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
76	Are adequate number of first aid boxes provided? Give location details.	Yes. 3 Nos of first aid boxes are available. 1. OHC 2. Gate No.3 3. Plant 2	Satisfactory.
77	Is there any first aid / ambulance room?	First aid carried out in OHC.	Satisfactory.
78	Are qualified / trained first aiders available in each shift?	Yes. In each shift, at least one trained first aider is available.	Satisfactory.
79	How many qualified / trained first aiders are available at each plant / department?	Total 10 nos of first aiders along with 2 mail nurse available in plant.	First aiders quantity should be increased.
80	How many persons are trained /given refresher training in first aid in a year?	Refresher training not conducted.	Identified persons to be trained in first aid every year.

6.7 OCCUPATIONAL HEALTH CENTRE:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
81	Whether occupational safety and health center is provided or not ?	Occupational safety and health is provided.	Nil.
82	Does it confirm to the provisions of the existing legislation ?	Yes.	Nil.
83	Are the medical attendant /doctors available in each shift ?	Mail nurse available in General shift. Trained first aider available in other shifts.	Nil.

84	Is ambulance van available in each shift ?	Company vehicle is available round the clock.	Ambulance from nearby industries can be arranged.
85	Any liaison with the nearest hospital(s) ? Give details.	Ashirwad Hospital, Tunga hospital, Vikas Hospital, Boiser.	This is Meeting as per statutory requirement.

6.8 GENERAL WORKING CONDITIONS:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
86	Are all the passages, floors and the stairways in good condition?	Yes.	Satisfactory.
87	Do you have sufficient disposable bins clearly marked and whether these are suitably located ?	Bins are systematically identified	Different bins provided and ensured with different waste category of scrap and and nomenclature on it.
88	Are drip trays positioned wherever necessary?	Yes.	Drip trays has been provided below every oil storage.
89	Do you have adequate localized extraction and scrubbing facilities for dust, fumes and gases? Please specify.	Yes. Scrubber systems are provided.	Satisfactory.
91	Whether walkways are clearly marked and free from obstruction?	Yes, at all areas walkways are free from obstruction marked	Satisfactory.
92	Do you have any inter departmental competition for good housekeeping?	Yes.	Satisfactory.
93	Has your organization elaborated good housekeeping practices and standards and made them known to the employees ?	Yes.	Satisfactory.
94	Are there any working conditions, which make the floors slippery? If so, what measures are taken to make them safe ?	Continuous cleaning of shop floor with rigorous supervision is exercised.	Satisfactory.
95	Does the company have adequate measures to suppress polluting dust arising out from road transport?	Yes.	Satisfactory.

A - NOISE:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
96	Are there any machines/processes generating noise? Specify.	Yes. Chiller, Air Compressor, Boiler generates noise.	
97	Was any noise study conducted?	Yes. Noise study conducted. Weekly by internal team & Quarterly by external competent authority.	Noise study carried out by M/s. Green EnviroSAFE, Mumbai. Dt.- 11.07.20
98	Which are the areas having high level noise?	No any area identified as high noise area.	Nil.
99	Have engineering and administrative controls been implemented to reduce noise exposure below the permissible limits ?	Yes. PPE like ear muff & ear plugs are used. Equipment also installed in isolated area.	Nil.
100	Is there a system of subjecting all those employees to periodic audiometric test who work in high level noise areas ?	Yes.	Records verified.
101	Whether the workers are made aware of the ill effects of high noise ?	Yes.	Periodic awareness training to be provided.
102	Whether any personal protective equipment along with ear muffs/plugs are provided and used ?	Yes.	Suitable PPEs are provided.

B - VENTILATION:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
103	Whether natural ventilation is adequate or not ?	Yes. Natural ventilation is adequate.	Satisfactory.
104	Whether dust / fumes / hot air is generated in the process? Give details.	Yes. Dust and fumes generated in the process.	Adequate measures are implemented.

105	Is there any exhaust dilution ventilation system in any section of the plant?	Scrubbing system provided.	Periodic verification for scrubber performance to be carried out.
106	Whether any ventilation studies has been carried out in the section(s) to check the record ?	No any ventilation study has been carried out.	Ventilation survey should be carried out.
107	Is periodic/preventive maintenance of ventilation system carried out and is the record maintained?	Preventive maintenance of Air Handling System carried out. AHU provided for Drying & Packing area.	Verified Preventive Maintenance Activity List of AHU maintenance.
108	Does any ventilation system recirculate the exhausted air in work areas?	Yes. Re-circulatory ventilation system provided in drying & packing area.	.
109	Is the work environment assessed and monitored?	Yes. Work Environment assessed quarterly.	Done by M/s. Green Envirosafe, Mumbai.
110	Whether personal protective equipment are given to workers exposed to dust/fumes and gases? Give details.	Yes.	Adequate PPEs provided to the workers.

C - ILLUMINATION:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
111	Was any study carried out for the assessment of illumination level ?	Illumination study is carried out by internal team. Frequency – Quarterly.	Records for the same to be maintained.
112	Is there any system of periodical cleaning and replacing the lighting fittings/lamps in order to ensure that they give the intended illumination levels ?	Presently no system is available. Maintenance carried out as & when required.	Periodic schedule for Maintenance & cleaning of FLP light fittings should be prepared.
113	Are the workers subject to periodic optometry tests and records maintained? Give details.	Yes.	Records available.

6.9 HAZARD IDENTIFICATION AND CONTROL:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
114	Are all the hazardous areas identified?	Yes. Manufacturing area, storage, loading/unloading area identified.	Satisfactory.
115	What are the types of hazards (physical-noise, heat etc. and chemical-fire, explosion, toxic release etc.?)	Fire, Explosion, Toxic release hazards are identified.	Onsite plan to be followed based on the emergency scenario.
116	What steps have been taken to prevent these hazards ? Give details.	Hazard identification and risk assessment is carried out for different activities.	Satisfactory.
117	Are there any safety interlocks, alarms and trip systems? Give details.	Yes. Interlocks provided on some critical process machines as well as utility machines.	Nil.
118	Are these tested periodically? How often? Please specify.	Presently there is no SOP for periodic testing of interlocks.	SOP for the same to be prepared and records to be maintained.
119	Are there any ambient monitoring devices with alarms for leakage of hazardous materials ? Give details.	No any ambient monitoring system available.	Nil
120	Are safety audit or HAZOP or any other studies carried out and the recommendations implemented? Give details.	Yes. HAZOP study and Safety Audit carried out in 2018.	HAZOP & Audit recommendations should be complied.
121	What has been the major modification done in plant/process and has the approval of the concerned competent authority taken ?	Yes. Revised plan approval was taken from DISH for previous major modification.	Records available.
122	What decision and monitoring equipment are available and used for checking the environmental conditions in and around the plant? Give details.	Yes. Ambient monitoring is carried out periodically.	Satisfactory.

6.10 TECHNICAL ASPECTS / SAFE OPERATING PROCEDURES:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
123	Are written safe operating procedures available for all operations?	Yes.	SOPs available.
124	Whether the written safe operating procedures displayed or made available and explained in the local language to the workers?	Yes.	SOPs to be displayed at work stations and should be explained in the local language to the workers.
125	Whether the safe operating procedures are prepared jointly by the plant and safety departments ?	Yes.	Satisfactory.
126	What system is used to ensure that the existing safe operating procedures are updated ? Give details.	SOPs are reviewed and updated periodically.	Satisfactory.
127	Have the workers been informed of the consequences of failure to observe the safe operating procedures ?	Yes.	Same topic covered in the employees trainings.
128	Are contract workers educated and trained to observe safety at workplace ?	Yes.	Periodic training carried out. Records for the same to be maintained.
129	Whether contractor's workers are permitted on process/operations? Give details.	Yes.	Contractors work in presence of responsible person

6.11 WORK PERMIT SYSTEM:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
130	What types of work permit exist in your factory ? Give details.	Various types of work permit such as hot work, height work , confined space, Fragile roof, Pipe line opening are exists in the factory.	Satisfactory.

131	What are hazardous chemicals handled ?	Chemicals like Hexane, Toluene, Chlorine, HCl, PCL3 etc handled in the factory.	Safe working instructions for handling should be displayed in local language.
132	Are the keys kept for individual locks, which are used for electrical lockouts with the supervisor concerned ?	Yes. Lock out system not followed. But Tag out permit system followed.	Satisfactory.

6.12 WASTE DISPOSAL SYSTEM :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
133	Is identification done for various types of wastes give details.	Yes. Hazardous waste – ETP & Process sludge, distillation residue. Non-hazardous waste- Plastic waste.	Nil.
134	Are these quantities less than those specified by the hazardous wastes.(Management & Handling rules 1989 ?)	Yes	Nil.
135	What are their disposal modes ?	As per the norms set by the Pollution control board.	Good practice.
136	What are the systems / measures adopted for controlling air/water/land pollution ?	Consent is observed strictly, and measures are documented.	Good practice.
137	What is the system of effluent treatment plant and whether it is approved by the competent authority ?	Yes. Effluent pretreatment plant is available with approval from MPCB.	Satisfactory.
138	How are the treated effluent used?	Sent for CETP for further processing.	Satisfactory.

6.13 PERSONAL PROTECTIVE EQUIPMENT (PPE) :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
139	Has a list of required PPE for each area/operation been developed and the required PPE is made available to the workers ?	Yes.	Satisfactory.

140	Are the safety department and the workers consulted in the selection of PPE ?	Yes.	Satisfactory.
141	Have the workers been trained in proper use of PPE ?	Yes.	Satisfactory.
142	What is the system of replacement/issue of PPE ?	By requisition approved by department head.	Satisfactory.
143	What are the arrangements for safe custody and storage of PPE provided to the workers ?	Lockers provided	Satisfactory.
144	Are the contractor's workers provided with the required PPE ?who is responsible ? Give details.	Yes.	Contractor supervisor along with Company supervisor is responsible.
145	Are the PPE conforming to any standard ? Give details.	Yes. PPE confirms to latest IS standards.	Standards shall be reviewed periodically.
146	Give the details of PPE and also specify the responsibility for their inspection and maintenance ?	Safety shoes, helmets, gloves, masks , safety goggles , ear muff etc.	PPEs are under control of safety department.PPE register is maintained.

6.14 FIRE PROTECTION :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
147	Indicate on a plant layout the location, number, quantity and types of portable fire extinguishers available.	Total 120 Nos. portable fire extinguishers available in the plant.	This quantity is adequate.
148	Are the fire fighting system and equipment approved, tested and maintained as per relevant standard ?	Fire extinguishers are maintained as per IS standard.	Satisfactory.
149	What is the inspection and maintenance schedule of the above extinguishers ? Who performs these functions ?	Inspection and maintenance carried out periodically by Third party.	Records verified.

150	Which areas of the plant are covered by fire hydrants ? Indicate the locations of the hydrant points and how the required pressure is maintained in the system and ensured?	All plant area covered by fire hydrant. Required pressure maintained in the plant by running the plant in Auto mode with the help of pressure switches.	Satisfactory.
151	What is the capacity of dedicated water reservoir for supply to the hydrants? What is the source of water?	400 KL Water comes from MIDC.	Nil.
152	How power supply to the fire hydrant pump is ensured ? What is the alternate source of supply in case of power failure ? Give details.	D.G. Set back-up provided.	Nil.
153	Are all personnel conversant with the fire prevention and protection measures? Give details.	Yes.	Periodic training carried out on the operation and maintenance of fire hydrant.
154	What percentage of plant personnel, staff and officers has been trained in the use of portable fire extinguishers? Give details.	40% of plant personnel, staff and officers has been trained in the use of portable fire extinguishers	These numbers are adequate.
155	Do you have fixed or automatic fire fighting installation(s) in any section of your plant?	No any fixed or automatic fire fighting system installed in the plant.	Nil.
156	Are the fire alarms adequate and free from obstruction?	Fire alarms system provided in Office only.	Nil.
157	Do you have fire department? If yes, give details.	No any fire department available in the factory.	Nil.
158	What is the system for conducting mock drills? Give details.	Mock drills conducted six monthly.	Verified mock drill record dated 10.11.2019.
159	Do you have any Mutual aid scheme with any of your neighboring industry or any local organization(s)?	Associated with TIMA - MAARG	Satisfactory.
160	Give details of the existing fire resistant walls and doors.	Not applicable.	Nil.

161	Do you have any system of color coding for all the pipelines for hazardous chemical? Give details including marking of flow directions.	Yes. SOP for colour coding is available. Marking of flow directions are missing.	Satisfactory.
162	Are there safe containers for the movement of small quantities of hazardous chemical? Give details.	Yes. Safe containers are available.	Satisfactory.
163	Are all self-closing fire doors in good condition and free from obstructions?	No any self-closing fire door installed in the factory.	Satisfactory.
164	How many major and minor incidents of fires were there in the factory during last five years? Give department /plant wise details.	No major & Minor incidents of Fire.	Nil.
165	Have all the fire incidents been investigated and corrective actions taken? Give break up.	There is no any fire incident happened in the factory.	Nil.

6.15 EMERGENCY PREPAREDNESS:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
166	Is there an on-site emergency control plan for your factory?	Yes. Onsite emergency plan is available.	Periodic training on Onsite emergency plan to be carried out.
167	What is the frequency of conducting mock drills of on-site emergency plan ?	Mock drills carried out six monthly.	Any deviation reported should be used to identify the training needs.
168	What are the number and location of emergency control center assembly points ?	There are 01 no of ECCs and 02 no of assembly points.	Satisfactory.
169	Whether emergency rescue team or the key personnel to work in emergency identified ?	Yes.	Satisfactory.
170	Are suitable and adequate protective and rescue equipment available? How is the emergency rescue team trained to use these equipments?	SCBA available. Qty – 01 Nos. Periodic training conducted.	SCBA operation procedure should be displayed in local language. SCBA spare cylinder should be kept at site.

171	How is the emergency communication with local bodies and other organizations ensured? Give details.	By Phone.	Satisfactory.
172	Is any alternate power source identified? Give details.	DG set available.	Satisfactory.
173	What is the medical emergency response system? Give details.	It is as per On-Site emergency plan.	Nil.
174	Are you a member of any MUTAL AID SCHEME of your area? If so give details.	Yes. With Tarapur industrial association.	Satisfactory.
175	How many emergency alarm system(s) is/are available? Give details.	Emergency siren available.	Satisfactory.

6.16 PLANT LAYOUT AND AREA CLASSIFICATION:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
176	What is the system of classification of hazardous zones in the plant for electrical installations? Please specify.	Hazardous zones identified as per the nature of the operations.	Hazardous area classification study has been carried out.
177	Whether a qualified person does periodic inspection and preventive maintenance of electrical installations and record is maintained?	Yes. Periodic maintenance is carried out.	Records are maintained in SAP.
178	Whether plant layout with area classification has been displayed at appropriate place(s) ?	Plant layout with area classification not displayed.	Nil.

6.17 STATIC ELECTRICITY:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
179	Whether the process(s) and equipment generate and accumulate static charge ? Whether it has been identified? Give details.	Yes. The concerned areas are identified.	Earthing –bonding procedure is to be followed.
180	Whether all such equipment are properly bonded and earthed ?	Yes.	Satisfactory.
181	How is the electrical resistance for Earthing circuits maintained? Are periodic inspections done and recorded?	Yes, periodical earth continuity test is carried out.	Records for the same to be maintained.
182	Are adequate Earthing arrangements made at the terminal points where hazardous chemicals are handled through pipes?	Yes. Dual earthing provided.	
183	Are anti-static charge devices fitted wherever necessary ?	Anti-Static charge device not fitted.	Same to be reviewed and implemented.
184	Whether these devices are periodically checked and maintained by a qualified person?	Not applicable.	Nil.

6.18 PRESSURE VESSELS (FIRED AND UNFIRED) :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
185	Give details of the plants, piping and vessels, which are operated at a pressure greater than the atmospheric pressure ?	Air receivers, Reactor jackets, Boiler etc. operated at higher pressure than atmospheric pressure.	List of pressure vessels available.
186	How is it ensured that the working pressure inside the pressure vessel(s) / pressure plant(s) will not exceed its / their maximum working pressure for which it is / they are designed ?	Safety valves & rupture disc provided.	Satisfactory.

187	What means of isolating the pressure vessels or means to prevent rise in pressure, are installed ?	Isolation valves are provided.	Satisfactory.
188	What standards/codes of practice are adopted for design, fabrication, operation and maintenance of the pressure vessels and records maintained?	ASME codes used for pressure vessels.	Satisfactory.
189	How are the pressure vessels tested ? Give details.	By hydraulic testing, Ultrasonic and visual inspection.	Satisfactory.
190	Is there any competent person for testing these pressure vessels? Give details.	Pressure Vessels / Plant is tested in compliance of Rule 65, MFR 1963 & certificates to that effect are obtained for pressure plant / vessels.	Tested by Mr. R. Pokardasani (Competent Person) MS/DISH/CPC/P-10
191	How are the recorded results verified?	By actual inspection of machines.	Satisfactory.
192	Give details of safety devices available for these pressure vessels?	Safety valves & rupture discs provided	Safety valve also installed on the reactor Jacket.
193	Whether logbook for pressure vessel and pressure plant is maintained ?	Yes	Records available.

6.19 NEW EQUIPMENT REVIEW:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
194	What is the system for effecting any change in the existing plant, equipment or process? Whether it is approved by the appropriate competent authority ?	Any change can be initiated after management approval. Latest plan revision was approved by DISH in 2017.	Satisfactory.
195	Whether the P & I diagrams and other related documents are updated accordingly ?	Yes. Necessary documents updated.	Satisfactory.

6.20 LIFTING MACHINES &TACKLE:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
196	Whether all the lifting machines are marked with their SWL ?	Yes.	Satisfactory.
197	Are all the examinations and tests documented in the prescribed form ?	Yes.	Records observed in Form No 11.
198	Are all the examinations and tests carried out and certified by competent person(s)? Give details.	Yes. All the tests carried out by competent person.	Tested by Mr. R. Pokardasani (Competent Person) MS/DISH/CPC/P-10
199	Are adequate lifting tackles provided at all the places where it is required? Give details	Yes.	Satisfactory.
200	Are the trained operators engaged for operating the equipment? Give details.	Yes.	Trained persons available
201	What is the system of training such operators ?	Periodic training carried out.	Satisfactory.
202	Are all the lifting machines and tackles maintained in good conditions and record maintained ?	Yes.	Periodic maintenance carried out.

6.21 MOBILE EQUIPMENT AND VEHICULAR TRAFFIC:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
203	Are all the mobile equipment in good condition?	Forklifts & Stacker used in the factory.	Nil.
204	Are trained drivers engaged for forklift trucks?	Yes.	Nil.
205	What is the system for identifying these drivers from other drivers?	Separate identity cards issued to the drivers.	Nil.
206	What system do you adopt to assess their standard of driving as poor/fair/satisfactory/good?	Satisfactory.	Nil.

207	Are there adequate number of warning signs / signals?	Yes.	Nil.
208	Are the hazards associated with transportation within the plant identified and safety measures taken? Give details.	Transportation hazards explained to the drivers.	Nil.

6.22 ACCESS:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
209	Is adequate safe access provided to all places where workers need to work ?	Yes	Roads & Gangways be marked clearly and maintained properly.
210	Are all such access in good condition ?	Yes	Satisfactory.
211	Are portable access platforms necessary? If yes, Are these sufficient? Are these regularly inspected ? Are these readily available ? Are these provided with toe boards and railings ?	No any portable platforms used in the factory.	Nil.
212	Oiling and greasing points : Are these located and extended to safe place clear of moving parts ? Are these easily accessible? Are these liable to drip into walkways? Whether such workers were trained and whether they are provided without-tight clothing's and register is maintained?	Yes Oiling and greasing activity is carried out as and when required. No possibility to drip into walkways.	Workers should be trained for the same. Records for the same to be maintained.
213	Are all drain covers in good condition and fitting flush ?	Yes.	Satisfactory.

6.23 MATERIAL HANDLING :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
214	Are there adequate storage facilities available.	Yes.	Satisfactory.
215	Are these areas clearly defined?	Yes.	Satisfactory.

216	Are all racks and steel ages in good condition?	Yes. Racks maintained efficiently.	Rack stability certificate to be obtained from competent person.
217	Do you have adequate equipment for handling materials?	Yes.	Satisfactory.
218	Do the workers know the hazards associated with manual material handling?	Yes.	Periodic awareness provided.
219	Where manual handling is necessary, are the workers been trained?	Awareness provided periodically.	Schedule for overweight to be followed as per MFR.
220	Do they practice this?	Yes.	Satisfactory.
221	Do workers follow safe procedures for storage of materials?	Safe procedures followed.	Satisfactory.
222	Whether contractor workers are trained in safety?	Yes.	Records to be maintained for the same.
223	What is the system for handing over plant to the maintenance department and receiving back?	Work permit system is observed.	Satisfactory.
224	Is the system consistently applied?	Yes.	Satisfactory.
225	What is the system for the preventive and predictive maintenance and how do you ensure its effectiveness? Give details.	Yes. SOP and Periodic schedule available.	SOP for preventive maintenance should be followed strictly.

6.24 TANK STORAGE VESSEL AREA:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
226	Whether it is a pressure vessel or not?	These tanks are not pressure vessel.	Nil.
227	Give storage vessels designation (exceeding threshold quantities specified in MSIHC. Rules 1989)	No any tank exceeds threshold quantities as per MSIHC.	Nil.

228	Give the names of material stored in each of them.	Detailed annexure attached separately.	Nil.
229	What are the vessel sizes (capacity in tones?)	Detailed annexure attached separately.	Nil.
230	What is the material of construction for each vessel and what standards followed in designing /fabricating the vessel?	Detailed annexure attached separately.	ASME codes & Good Engineering Practices followed for fabrication of the vessels.
231	What are the operating pressure and temperatures?	Atmospheric.	Nil.
232	What are the vessels location?(Please indicate on-site plant or plot plan.)	Vessels located on ground floor in designated area.	Nil.
233	Indicate whether vessels are above ground / underground	Vessels are above ground as well as underground.	Nil.
234	If any of the tanks storing flammable material, whether electrical installations are flameproof or not ?	Electrical installations are flame proof.	Satisfactory.
235	Are these storage vessels bunded /dyked?	Yes. Vessels are dyked.	Dyke capacity should be reviewed.
236	If yes, what is the capacity of the bunds / dykes?	Dyke capacity is as per storage volume.	Nil.
237	Are the vessels properly bonded and earthed and whether periodically checked and record maintained?	Tanks are properly bonded.	Earth continuity test to be carried out periodically.
238	How are vessels isolated in the event of a mishap?	Vessels can be isolated with isolation valves.	Satisfactory
239	Are the vessels fitted with remotely controlled isolation valves ?	Yes.	Satisfactory
240	Are vessels provided with emergency vent, relief valve, bursting disc, level indicator, pressure gauge, overflow line ?	Vent, Level indicators , flame arrestors provided.	Satisfactory
241	Where do such vents discharge ?	Vents discharged at safe level.	Satisfactory.

242	Are the vessels provided with alarms for high level, high temperature and high pressure?	No any alarms provided.	DMS leak detector should be provided.
243	Are stand by empty tanks provided for emptying in case of emergencies ?	Spare tank available.	Nil.
244	What are the provisions made for fire fighting/tackling emergency situations around the stored vessels ?	Fire hydrant & fire extinguishers, provided.	Satisfactory.
245	Has any consequence analysis been carried out for these vessels ?(If yes, give details)	Consequence analysis not carried out.	Consequence analysis should be carried out.
246	What periodical testings are carried out on the vessels to find out the integrity of the vessels?	External examination and thickness test (For above ground tanks) carried out periodically.	Nil.
247	Whether these tests are certified by the approved competent persons ?	Tests are carried out by Competent person.	Nil.
248	Whether log sheets are filled up on daily basis for recording the parameters of these vessels ?	No any log book maintained.	Nil.

6.25 ON-SITE GAS CYLINDERS STORAGE AREA :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
249	What are the various gas cylinders used in the plant?(give details)	Nitrogen, Hydrogen, Zero air cylinder , used for analysis purpose in Lab. Dry HCL gas used for production.	Adequate precautions taken during handling of gas cylinders.
250	What are storage facilities?	Stored in specified cylinder storage area.	Satisfactory.
251	What are the measures taken for combating any emergency in the cylinder storage area?	Preventive fire fighting system provided.	Satisfactory.
252	Are valid licenses available for Storing all these cylinders?	Storage quantities are less than required for license.	Satisfactory.

253	Whether integrity test certificates are obtained from the suppliers of the cylinders?	Certificates not available.	Integrity certificates should be obtained from the suppliers.
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6.26 COMMUNICATION SYSTEM ADOPTED IN PLANT:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
254	Are public address system available in all plant areas?	Public address system not available in all plant.	Nil.
255	Are public address systems provided with uninterrupted power supply?	Public address system not available in all plant.	Nil.
256	Whether public address system is checked periodically for its proper functioning?	Public address system not available in all plant.	Nil.
257	Is there any hot line provided to fire station ?	No dedicated fire station available.	Nil.
258	What is the means of communicating emergency in the plants ?	By manual communication and emergency siren.	Satisfactory.

6.26 TRANSPORTATION:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
259	What potentially hazardous materials are transported to or from the site (including wastes?)	Yes. Hazardous material transported to or from site.	Onsite emergency plan to be followed in case of transport emergencies.
260	What modes of transport are used Road ? Rail ? Pipelines ?	By road.	Satisfactory.

6.27 ROAD :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
261	Does the company employ licensed vehicle of its own / outside sources ?	Yes.	Licensed vehicles are provided.

262	Are the loading / unloading procedures on-site and safety precautions displayed ?	Yes. Required procedures are displayed at strategic locations.	Satisfactory.
263	Are loaded tankers or trucks parked in a specific area on-site ?	Yes. Parking done in specific area.	Satisfactory.
264	Do all truck and tanker drivers carry TREM card or instruction booklet ?	Yes.	Satisfactory.
265	Do all truck and tanker drivers get training in handling emergencies during transport ?	Yes.	Nil.

6.28 RAIL:

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
266	What hazardous materials are transported by rail ?	No any hazardous material transported by rail.	Nil.
267	Does the company have a direct siding on site ?	Not applicable.	Nil.
268	Are tankers or others wagons used in transportation ?	Not applicable.	Nil.

6.29 PIPELINES :

Sr. No.	AUDIT POINT	OBSERVATION	COMMENTS / RECOMMENDATIONS
269	What materials are transported to and from the site by pipeline ?	No any material transported to and from the site by pipeline.	Nil.
270	Are the pipelines underground or over ground ?	Not applicable.	Nil.

271	Are corrosion protection measures employed in pipelines?	Not applicable.	Nil.
272	Whether intermediate booster pumps are used ?	Not applicable.	Nil.
273	What are the maximum, minimum and average transfer rates ?	Not applicable.	Nil.
274	Are the pipelines extended in the public domain ?	Not applicable.	Nil.
275	Are the pipelines dedicated for each type of chemicals ?	Not applicable.	Nil.
276	Are the pipelines fitted with safety equipment such as leak detectors, automatic shut-off valves, etc ?	Not applicable.	Nil.
277	What is the frequency and method of testing of the pipeline?	Not applicable.	Nil.
278	Is there any written procedure for tackling leakages in pipe line?	Not applicable.	Nil.

SECTION - 7

- **PLANT VISIT :**

Site visit is an important element of an Audit. Visits to the plant were done in running condition of the plant operation. Observations on relevant audit elements were recorded. Relevant documents were checked during these visits. Information was collected from operators and the staff present at the site during visits.

- **SITE OVERVIEW :**

M/S. SAREX OVERSEAS is having full-fledged manufacturing facility at the site.

The site has one gate on the road side. The site is well accessible by road. Population distribution around the plant is considerable.

- **SITE OPERATIONS :**

- Handling and storage of Different chemicals, gas cylinders.
- All Manufacturing activities in manufacturing areas
- Safety systems
- Operation and maintenance of process machines.
- Utility operations.
- The required inventory of each material is maintained.
- **Infrastructure available & maintained :**

- | | |
|-------------------------|--|
| • Material storage area | For storing various raw material & finished goods. |
| • Manufacturing plant | For manufacturing processes. |
| • Utilities Shed- | Cooling Tower, Nitrogen Plant
Chiller , Air compressors, Boiler |
| • Primary ETP | For effluent pre-treatment plant. |
| • Q.C Lab & R & D Lab | For analysis purpose. |
| • Administrative office | For official work. |
| • Security gate - | At the entrance. |

- **MANPOWER :**

- Around 500 Company employees along with contract persons are working in the factory including supervisors & workers.
- Manufacturing process is carried out in three shifts.
- Manufacturing personnel are found to be well conversant with their duties and in respective operations.

- **COMMENTS :**

- Process needs to handle various chemicals for their routine operations.
- Hence following actions are required to be taken by the management -
- Preparation of ‘Safety Inspection report’ at the prescribed intervals
- Providing information on significant modifications
- Conduct regular safety audits.
- Conduct periodic safety trainings.
- Hazard identification for each unit operation to be carried out.
- Safe operating procedures should be displayed at work place.
- Adequate machine guarding for rotating parts.

SECTION - 8

- **SAFETY SYSTEMS :**

The company has safety systems, safe operating procedures. Safety organization should be developed for its implementation. Safety systems should be introduced and practiced at site for creating safety culture, developing high health standards and up keeping of the environment.

- Accidents reporting system & investigation and maintenance of records
- Routine Safety inspections
- Safety training / refreshers courses
- Safety motivation / promotion and publicity
- Good Housekeeping program
- Hazard identification and control
- On-site emergency plan
- Work permit system
- Personal protective equipments
- Fire protection systems
- Automation of hazardous processes
- Safety of the Contractor's personnel

8.1 HEALTH AND SAFETY POLICY:

M/S. SAREX OVERSEAS, Health, Safety & Environmental policy is prepared hence a reflect of, the continuing commitment of the company to prevent injuries, protect lives and health of employees, safeguard plant and building and avoid adverse environmental effects.

However, the policy should be supported by document specifying the necessary information specified under the MFR No 73-L the main contents of the rule are given below for reference. In particular, the policy should specify details regarding the following

- a) Arrangements for involving the workers
- b) Intention of taking in to account the health and safety performance of individuals at different levels while considering their career advancement
- c) Fixing the responsibility of the contractor, sub-contractors, transporters and other agencies entering the premises
- d) Providing a resume of health and safety performance of the factory in its Annual report
- e) Relevant techniques and methods, such as Safety Audit and Risk Assessment for periodical assessment of the status on Health, Safety and Environment and taking all the remedial measures
- f) Stating its intention to integrate Health and Safety in all decisions including those dealing with purchase of plant, equipment, machinery and material as well as selection and placement of personnel
- g) Arrangement for informing, educating and training and retraining its own employees at different levels and the public, wherever required

The occupier should review the Safety Policy as often as may be appropriate, but it should necessarily be revised under the circumstances, namely - whenever any expansion or modification or introducing new products / materials having implications on safety and health of persons at work is made.

Apart from the legal requirements, it is absolutely essential to have a Health & Safety policy so that all the safety activities follow a predetermined course.

8.2 SAFETY ORGANISATION:

Dedicated Safety Department is available.

8.3 SAFETY COMMITTEE:

As per MFR – 73J, safety committee formulated in the factory. Meetings of the committee carried out periodically.

8.4 ACCIDENT REPORTING, INVESTIGATION AND ANALYSIS:

Accident register is maintained.

8.5 SAFETY INSPECTION / AUDIT SYSTEM:

INTERNAL INSPECTION:

Internal inspection is carried out with respect to health and safety. There is an internal inspection system in place which covers -

- Machine guards
- Fire safe housekeeping
- Compliance to use of PPE
- Unsafe acts / behaviors
- Compliance to Hazardous work permit system
- Safety inspections of pressure vessels
- Electrical Safety inspection
- Inspection of fire extinguishers
- Earthing continuity test for pipe lines and electrical distribution systems

The status of these inspections should be reviewed periodically.

Recommendations: - Compliance for internal inspection observations should be confirmed.

8.6 SAFETY TRAINING / RETRAINING:

It is observed that training activities are framed in the organization. Responsibility to carry out the employees training is assigned. Training calendar covers the health and safety aspects.

It is recommended that,

The company should expand the training program as per the needs of the organization. Such a training program should include topics like Accident Investigation, Static Electricity etc .

Training of supervisory and operations personnel provides the most immediate opportunity to increase awareness of health and safety issues and ensures the competence of

employees in performing their responsibilities. Training programs are the keys to ensuring the effectiveness of SOPs, maintenance programs, pre-startup review and emergency response. Refresher training ensures that established employees are reminded of appropriate procedures periodically and of alterations that have occurred. To minimize the risk of accidents a successful training program for the site should include the following: initial and refresher training for all employees; procedures to confirm that all employees are competent to do their jobs safely; additional training after any change is made to the process or to the facility overall; a formal documentation.

The basic components of a training program should include need of the site as generated during Accident investigation, including training policies and schedules refresher course, and incorporation of management of change. Procedures, Training documents consist of quality improvement checklists, the quality control manual, acceptability criteria, safety rules, shop rules, company policies and the employee training document. The SOPs / manual for these operations need to be included in training programs to ensure the safe operations.

Records for job-specific training need to be maintained in the mandatory training binder. Employee training records need to be kept in the individual's employee file. All training sessions have the training date and training description be recorded on a form. An accompanying sign-in sheet for employee signatures attending the training is kept in the binder along with the SOPs.

The training programs need to be updated in light of any **new regulatory** requirements and during introducing the **new products**. It is encouraged to have the training program that illustrates hazards in material handling, foundry activities, and topics such as hazard communication, emergency response, MOCK DRILL, which is given by with the help of audio visual presentations, question and answer sessions.

The accidents are likely to happen due to human failure to evolve proper and safe system, failure to comply with safe practices, ignorance of Safety Rules etc. The need is therefore to create and maintain a safety culture. In order to create such an environment there is a need for continuous safety education to all, right from senior management to Supervisors and Workers.

Employee competence records should be updated with respect to the training program feedback systems.

8.7 SAFETY COMMUNICATION / MOTIVATION / PROMOTION:

Safety promotion and publicity is carried out by display of posters, display of safety literature, safety messages at notice board, celebration of safety week in month of March.

It is recommended to display more safety posters for the awareness.

8.8 HOUSEKEEPING:

Housekeeping is good in all the areas. Records for the same to be maintained.

8.9 HAZARD IDENTIFICATION AND CONTROL:

There are number of identification of hazards techniques (e.g. what if checklist, hazard and operability study (HAZOP), Fault Tree Analysis, or Failure Mode and Effect Analysis.) Depending upon the complexity of operations, appropriate identification of hazards technique is needed to be used.

8.10 MOCK DRILLS & EXERCISES:

Mock Drills and other exercises as supplement training which allows each employee to understand more clearly what steps to take in case of an emergency. Testing emergency procedures, such as evacuation routes, internal / external alert system, and community coordination, enhances response time and demonstrates whether the procedures are viable in an emergency. Drills and exercises generally cover evacuations, fire fighting, medical and rescue operations; filed response to a hazardous material event may also be addressed, although generally with somewhat lesser frequency.

It is recommended that,

“On site Emergency Control Plan” shall be updated in line with the practical scenarios which may arise during various unit operations. Mock Drills Should be carried out on the basis of On Site Emergency Control Plan.

8.11 SAFE OPERATING PROCEDURES (SOPs) :

Safe operating procedures (SOPs) are documented for, safe facility operations by supporting safety in day-to-day activities and in operator training programs. SOPs describe site access, process startups and shutdowns during routine and emergency operations, lockout and tag out, confined space entry, opening process equipment or piping, storage, handling, loading and unloading. SOPs addressing operating parameters should include operating instructions

about pressure limits, temperature ranges, flow rates and steps on how to handle process deviations. Furthermore, SOPs should be reviewed as necessary to ensure that they reflect current operating practices (**including changes that result from alterations in process, technology, equipment and modifications** of the facility) and that current information is transmitted as part of employee training.

The pre-startup review serves as a final check on management of change. It ensures that all issues have been addressed and all systems have been checked prior to startup of a new or substantially modified process or after emergency shutdowns for routine processes. Startup of new or modified systems can be a particularly hazardous time. The pre-startup review involve ensuring that construction and equipment is in accordance with design specifications; safety, operation, maintenance and emergency procedures are in place; appropriate hazard evaluation activities have been completed; management of change has been followed and updated training for each employee involved in operation or maintaining a process has been completed.

8.12 WORK PERMIT SYSTEM:

There are various work permits followed. Non-routine work that is conducted in process areas needs to be controlled by the facility in a consistent manner. The relevant hazards should be communicated to those doing the work as well as those operating personnel whose work could be affected. A system of “hot work permits” protects employees and others from potentially hazardous situations resulting from non-routing, “hot work” operations (e.g. welding) that may take place in process areas. Hot work permits should document that the required fire prevention and protection measures have been implemented and should indicate the date(s) authorized for hot work and the object on which the hot work is to be performed. The permit covers these aspects satisfactorily. The present work permit system should be followed strictly.

8.13 PERSONAL PROTECTIVE EQUIPMENT (PPE) :

There is handling of heavy material, flammable and corrosive chemicals on the site. There are adequate personal protective equipments such as Safety Shoes, Safety Helmet, Safety goggles, Face shield, Dust respirator, Fresh Air Mask, Apron etc.

In spite of best of Technical measures taken, it is not always possible to anticipate and control every mishap every time and to prevent accident, Use of personnel protective equipments will help to reduce the effect of consequences.

It is recommended that,

The Line Managers should ensure that employees use the Personal protective equipments supplied to them by the company while working.

It may be noted that at section 2(I) of the factories act, a contract workman is to be treated at par with the regular employees as far as the safety and health is concerned.

8.14 FIRE PROTECTION SYSTEM:

There is adequate fire extinguishers are posted at strategic location and the system backed by budgetary support for maintenance. Ring type hydrant system also provided.

Adequacy of fire protection system should be verified periodically by taking periodic trials.

8.15 PREVENTATIVE MAINTENANCE SYSTEM:

There is an preventive maintenance program for machinery & equipment at the site. Presently preventive maintenance is carried out as per schedule. The preventive maintenance program should cover the key check points for the inspection of the respective machines.

8.16 CONTRACTORS:

As the contractors have to perform work around the operations that involve hazardous material there is need to include the contractors in the facility process safety management chain. Special efforts must be made to screen contractors appropriately and to assure that contractor employees receive up-to-date training.

SECTION - 9

1. STATUTORY PROVISIONS AND COMPLIANCE :

(Related to safety, health and environment)

By virtue of the handling of heavy material, flammable, chemicals and nature of operations at the site, various statutory requirements are need to be complied. For compliance, it is considered in the following points.

- 9.1 Plant is designed to meet the requirements of Indian Factory Act 1948 and Amendments of 1976 and 1987 & the rules prescribed under state rules. FACTORY PLAN APPROVAL and FACTORY LICENSE is in compliance of said rule.
- 9.2 STABILITY CERTIFICATE: In compliance of Rule 3A, stability certificate is available.
- 9.3 PRESSURE PLANT / VESSELS: In compliance of MF Rule 65, reports of examination for pressure plant / vessels are obtained from competent person.
- 9.4 MEDICAL EXAMINATION: In compliance of MFR 1963 Section 73-V, the periodic medical examination is carried out from certifying surgeon .
- 9.6 HEALTH AND SAFETY POLICY: In compliance of MFR 1963 Section 73-L Health Safety and Environment Policy is prepared and published. The comprehensive safety policy is prepared and wide publicity is given.
- 9.7 In compliance of under section 25 of water (Prevention and control of pollution) Act. 1974, under section 21 of Air (Prevention and control of pollution) Act. 1981 along with rules 1982, Authorization / renewal of Authorization under rule 5 of the Hazardous wastes (Management & Handling) Rules, 1989; Consents to establish and operate are obtained.
- 9.8 In compliance of the MFR 1963, Section 73-F, work permit system followed.

- 9.9 LIFTING TOOLS AND TACKLES: In compliance of MF Rule 62 and 64, reports are obtained from competent person.
- 10.0 SAFETY COMMITTEE: In compliance of MF Rule 73-J, safety committee has been formed.
10. ON SITE EMERGENCY PLAN : In compliance with the section 41-B(4) of Factories act.

There is satisfactory system for compliance to the statutory requirements. There is regular follow up system towards the compliance of the statutory requirements and fulfilling occupier's obligations.

SECTION - 10

OBSERVATIONS AND RECOMMENDATIONS

A) UTILITY & ELECTRICAL PANEL ROOM

1. Rubber mat with suitable test voltage, ISI approved should be provided to all electrical panels.
2. Thermography of the electrical panels should be carried out.
3. Smoke detector quantity should be increased with respect to the panel room area.
4. Unauthorized access should be restricted in electrical panel room. List of Authorized persons should be displayed.
5. Battery charging area needs to be segregated with proper temperature control.
6. Safe work instructions for chiller, Boiler, Air Compressor, Nitrogen Plant should be displayed in local language.
7. Safety valve of suitable capacity should be provided to the compressed air receiver.
8. Boiler IBR registration details should be displayed at the boiler house.
9. Boiler feed water hardness should be monitored & recorded
10. Rubber mat with suitable test voltage, ISI approved should be provided to Boiler electrical panel.
11. All boiler safety valves should be provided with tags mentioning test details.
12. Standard acceptance criteria for operating parameters of Utility equipment should be mentioned in logbook.
13. High Noise area board to be displayed at utility area. Adequate PPE's like ear plugs should be used.
14. Ammonia cartridge mask should be provided for arresting any accidental leakage of Ammonia gas of Chiller.

15. Thermic Fluid Heater as per Maharashtra Factory Rule 73-ZA– Stack temperature monitor cum controller with audio visual alarm should be provided so as to warn the operator in case the outlet temperature exceeds the specified minimum.
16. Thermic Fluid Heater as per Maharashtra Factory Rule 73-ZA– The heater coil shall be tested by competent person once at least in every 12 months. The test pressure shall not be less than twice the operating pressure.
17. Thermic Fluid Heater as per Maharashtra Factory Rule 73-ZA– Effectiveness of all safety interlocks should be verified & recorded on weekly basis.
18. Thermic Fluid Heater as per Maharashtra Factory Rule 73-ZA– Checking & recording weekly observations confirming that all accessories are in good state of repairs.
19. Thermic Fluid Heater Stack monitoring should be carried out as per MPCB norms.

B) FIRE HYDRANT SYSTEM

20. Fire hydrant operating procedure should be displayed in local language.
21. Arrow for flow direction should be marked on hydrant lines. Also hydrant pump codification should be done.
22. Operating trial of the fire hydrant system should be carried out periodically. Records for the same to be maintained.
23. Layout showing fire hydrant points across the plant should be displayed at the fire pump area.
24. Jockey pump found leakage from gland. Leakage should be rectified.
25. Presently only Jockey pump runs in auto mode. Main fire pumps kept on manual mode
It is recommended to provide low pressure switch alarm in hydrant line so that main fire pump can be started.
26. Interlock to be provided to the Main pump & diesel pump such that both the pumps should not be operated simultaneously in Manual mode.

27. Preventive maintenance of diesel pump should be carried out as per IS15301.
28. All suction and discharge line valves should be kept locked open.
29. Emergency light of the hydrant pump house should be marked.
30. All unwanted material should be removed from the pump house.

C) UNDERGROUND STORAGE TANK AREA

31. All significant information should be displayed near tank farm area as per PESO guidelines.
32. Mr. Nilesh Singh (warehouse) monitoring the DMF tanker unloading activity. He is working without safety shoes. Also he is not aware of the Tanker Unloading Checklist Details. It is recommended to provide training to the employees regarding the same.
33. During DMF tanker unloading activity, checklist filled & signed by Security guard. But actually check points are not verified. Ignition key of the tanker found at ignition switch instead of security cabin. It is recommended to provide awareness training to security guards regarding the same.
34. During DMF tanker unloading activity, earthing jump overs not provided to the unloading hose.
35. Flow direction marking & coding to be provided to the solvent transfer lines.
36. Flexible earthing crocodile clamp found completely corroded. Schedule to be prepared for periodic condition monitoring of the flexible earthing cables.
37. Integrity verification of SS braided hose used for tanker unloading should be carried out periodically.
38. Fire extinguishers which kept open to atmosphere should be placed in weather proof enclosures.
39. MSDS abstract in local language should be displayed near the storage tanks.

40. Manual switch provided to Earth Integrity Monitoring system. Audio alarm should be provided so that alarm will sound in case of power failure to the Earth Integrity Monitoring System.
41. Presently flame arrestors provided on the vent lines of the storage tanks. It is recommended to provide Breather valves with flame arrestors on vent line to control the flammable vapour release in to the atmosphere.
42. Pressure gauge to be provided on the solvent storage tank so to indicate the pressure rise in to the tank in case of flame arrestor chocking.
43. Spark proof tools should be used in UG tank farm area.
44. Xylene transfer line earthing jump overs found missing.
45. Calibration tags of the gauges should be displayed.
46. As various class A solvents are stored in bulk quantities. It is recommended to provide Nitrogen Blanketing System for the tanks.
47. Consequence analysis should be carried out for underground solvent storage tanks. Recommendations shall be complied.

D) TRANSFORMER AREA

48. Earthing to be provided to the transformer fence. Earthing jump-over to be provided on fencing gate.
49. All earth pits should be coded .Earth pit for neutral should be marked separately. So that same should not be opened when transformer is in energized condition.
50. Emergency off switch to be provided to the transformer. Same should be provided outside of the transformer fence so as to operate in emergency.
51. Electrical hand gloves suitable for working potential of 33KV voltage should be provided.

52. Fire extinguishers (DCP & CO₂) of suitable capacity along with sand buckets should be provided near transformer area.

E) MANUFACTURING PLANT 2

53. Safe Working Load should be marked on material hoists & lifting equipments.
54. Belt guards to be provided to the vacuum pumps.
55. High temperature alarm to be provided to the reactor R-207 to indicate high rate of chlorine charging.
56. Presently vacuum gauge provided on reactor R-207. It is recommended to provide compound gauge on the reactor so that to monitor any pressure rise in to the reactor due to high rate of chlorine charging.
57. High temperature alarm to be provided to the reactor R-204 to indicate accidental water mix-up with ALCL₂.
58. Tantalum tip to be provided to the thermo well of glass lined reactor so as to have better conductivity to limit accidental discharge of static charge.
59. Various pipe lines found sagging without proper support. Proper support to be provided to the pipe lines.
60. Alarm provided for scrubber failure. It is recommended to have feedback of the alarm from motor current instead of motor on-off.
61. Safe work instructions for all unit operations should be displayed in local language.
62. Vent of the all solvent storage day tanks should be routed to safe area with flame arrestor.
63. Centrifuge interlocks should be tested during preventive maintenance. Records for the same to be maintained.
64. Centrifuge should be examined by competent person periodically as per Maharashtra Factory Rule 57, Schedule V.
65. Safety valve of adequate capacity should be provided to the ANFD.

F) R & D

- 66. HAZOP study should be conducted & recommendations shall be complied before taking new product at plant level from R&D level.
- 67. Fuming hood CFM calibration to be carried out periodically.
- 68. Safety valve of Autoclave should be calibrated periodically.
- 69. Adequate ventilation should be provided to Electrical panel room.

G) WARE HOUSE

- 70. Safe Working Load should be marked on the storage racks.
- 71. Certificate for storage rack stability should be obtained from competent Authority.
- 72. Smoke detection system should be installed in the RM store.
- 73. Safe manual load handling / Stacker operation procedure should be displayed in local language.
- 74. Safe Working Load should be marked on scissor platform.

H) DRYING & PACKING AREA

- 75. Safe Working Load should be marked on the chain pulley blocks.
- 76. Safety valve with adequate capacity should be provided on RVPD utility header.

I) GENERAL & DOCUMENTATION

- 77. Mock drills to be carried out on the basis of practical emergency scenarios.
- 78. Safety policy to be translated in local language as per Maharashtra Factory Rule 73 L.
- 79. All the applicable provisions related to handling of flammable chemicals and compressed gases should be complied as per schedule XXIII of Maharashtra Factory Rule 114.
- 80. All the applicable provisions related to handling of corrosive substances should be complied as per schedule XII of Maharashtra Factory Rule 114.

81. All the provisions related to Rule 73-N of Maharashtra Factory Rule should be complied.
82. All the provisions related to fire fighting should be complied as per Maharashtra Factory Rule 71 B
83. All applicable provisions related to the Occupational Health Centre should be complied as per Maharashtra Factory Rule, 73 W.
84. Integrity of the Flameproof Fittings should be verified periodically.
85. All emergency exits should be maintained as per Maharashtra Factory Rule, 70(9)
86. Safety posters, Signage, Emergency Dial Number should be displayed at various locations.
87. Spark test of the glass lined reactors should be conducted periodically. Records for the same should be maintained.
88. First aid refresher training should be conducted.
89. Ventilation survey should be carried out.
90. Record for Illumination study which is done by internal team should be maintained.
91. Hazard Identification & Risk Assessment should be updated. Previously done in 2011.
92. On-Site Emergency Plan should be upgraded for practical emergency scenario & maximum credible loss scenario.
93. Spare cylinder for SCBA should be kept in spare.
94. Plant layout with hazardous area classification study should be displayed at strategic locations.
95. All fire Extinguishers should be placed as per IS2190.
96. Abstract Of the Factory's Act should be displayed on the notice board.

SECTION – 11

ACTION PLAN:

There are adequate numbers of safety systems designed to cater to the needs of the site backed with budgetary support, strict administrative control, follow up and records. Internal audits, internal inspections, training program, Mock drills should be carried out at regular intervals. The Management was found to have positive approach towards the safety at site.

There is a satisfactory compliance of the legal requirements. The management is keen to follow up on the compliance needs.

In conclusion, to fulfill the safety audit objectives the audit team urges that the safety standards should be looked after satisfactorily to ensure the safe operations at site. In pursuit of continual improvement, the systems have adequate ability to achieve the desired goals.

Action on the safety audit report is most important. As the nature of recommendations cover a large number of aspects of the site activity, all cannot be complied simultaneously but can be phased out. Definite action plan for compliance and regular follow up will help in achieving the objectives of the Audit.

Annexure – 10

**Write up on leak detection
devices**

LEAK DETECTION DEVICES INSTALLED IN THE PLANT

Following are the leak detection devices installed in our plant.

<u>Sr.</u>	<u>Leak Detection</u>	<u>Location</u>	<u>Application</u>
1	Chlorine Leak Detection	Near Chlorine Cylinders	For Detection of Chlorine Gas Leakage
2	HCL Leak Detection	Near Dry HCl Cylinders in Plant-2	For Detection of Dry HCL Gas Leakage
3	Smoke Detectors	In Electrical panel Room	For Detection of Smoke / Fire in the Panel Room
4	Smoke Detectors	In Administration Office Building	For Detection of Smoke / Fire in the Office

Annexure – 11

Form-7

FORM NO. 7

{Prescribed under Rule 18 (7)}

HEALTH REGISTER

Name of certifying Surgeon
Dr. Uttam R. Babar

From:

To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021	If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	2	MR. DINKAR PATIL	M	58	2011	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
2	4	MR. KAILAS BHANGALE	M	40	2008	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
3	99	MR. MAYUR PAWADE	M	24	2021	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
4	34	MR. BABLOO MAHTO	M	38	2018	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
5	6	MR. VIJAY MORE	M	51	1994	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
6	309	MR. CHATTILAL KORI	M	30	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit		No	N. A.	N. A.
7	325	MR. MUKESH MAHATO	M	30	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit		No	N. A.	N. A.
8	08	MR. ABAJI WAVARE	M	49	2008	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
9	143	MR. DIPTESH PATIL	M	28	2020	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
10	43	MR. KISHOR DOD	M	31	2016	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
11	46	MR. LALIT TONGALE	M	28	2019	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
12	76	MR. RAJU F. PANDEY	M	43	2018	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
13	255	MR. SANTOSH KINI	M	45	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit		No	N. A.	N. A.
14	308	MR. ARUN MISHRA	M	43	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit		No	N. A.	N. A.
15	110	MR. YOGESH PIMPLE	M	33	2015	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
16	109	MR. BHUSHAN DESHMUKH	M	33	2015	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
17	61	MR. ROHIT CHAVAN	M	25	2021	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
18	59	MR. DIPAK BHANGALE	M	31	2016	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
19	45	MR. RAHUL THORAT	M	26	2021	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.
20	104	DR. SHAILESH KUMAR TIWARI	M	56	2001	N. A.	N. A.	Staff	Nil	Fit		No	N. A.	N. A.

AC: Aluminum Chloride
MB: Monochloro Benzene
CC: Cyanuric Chloride



कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक

क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}

HEALTH REGISTER

Name of certifying Surgeon

Dr. Uttam R. Babar

From:

To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021			If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15
21	75	MR. RAMNARAYAN YADAV	M	46	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
22	112	MR. KAUSTUBH PATANKAR	M	30	2021	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
23	18	MR. RAJESH NAIR	M	29	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
24	98	MR. NILESH SINGH	M	26	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
25	56	MR. KALPESH BHANGALE	M	27	2020	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
26	90	MR. SUDHIR GOP	M	43	2005	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
27	257	MR. PRAKASH DUBLA	M	40	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
28	35	MR. MUKESH TANDEL	M	35	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
29	266	MR. SUNIL B. KUMAR	M	34	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
30	96	MR. APPA D. SARGAR	M	33	2017	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
31	63	MR. RAHUL PATIL	M	41	2015	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
32	64	MR. ANIL PATIL	M	51	2009	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
33	67	MR. ROHAN RAUT	M	32	2017	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
34	115	MR. VISHVESH JOSHI	M	34	2021	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
35	339	MR. ANIL PANDEY	M	42	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
36	113	MR. AMRITLAL MAURYA	M	32	2015	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
37	201	MR. RANJEET CHATAR	M	29	2007	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
38	103	MR. ASHOK PRASAD	M	44	2003	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
39	20	MR. RAMAYAN YADAV	M	31	2014	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
40	97	MR. MAHADEV MANE	M	31	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	

AC: Aluminum Chloride
 MB: Monochloro Benzene
 CC: Cyanuric Chloride

कारखाने अधिनियम १९४६ च्या कलम १०(२) प्रमाणे
 पातघर जिल्हाकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक

क. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}

HEALTH REGISTER

Name of certifying Surgeon

Dr. Uttam R. Babar

From:

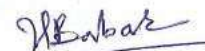
To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021			If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension Issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15
41	254	MR. SHIVA THAKUR	M	34	2010	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
42	267	MR. RAJENDRA VALMIKI	M	35	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
43	287	MR. GHUJA GOP	M	34	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
44	301	MR. PAWAN SINGH	M	45	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
45	48	MR. SHANTILAL ANDHALE	M	24	2021	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
46	303	MR. PAPPU SINGH	M	43	2007	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
47	102	MR. DILIP YADAV	M	36	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
48	237	MR. LALIT SETHI	M	30	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
49	68	MR. DHRUV CHAUHAN	M	32	2016	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
50	66	MR. YASHVANT SINGH	M	29	2015	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
51	289	MR. SHIV TURI	M	24	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
52	286	MR. AGASTI NAIK	M	40	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
53	216	MR. RAHUL PASWAN	M	38	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
54	318	MR. SUNIL JAISWAL	M	29	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
55	367	MR. ALEKHA NAIK	M	26	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
56	224	MR. GHANSHYAM SANDHA	M	24	2010	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
57	213	MR. NETRAMANI MEHER	M	40	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
58	210	MR. AJAY MAJHI	M	23	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
59	73	MR. HEMANT KUWAR	M	40	2012	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
60	395	MR. DHIREN GOP	M	38	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	

AC: Aluminum Chloride
 MB: Monochloro Benzene
 CC: Cyanuric Chloride



कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
 पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक

क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}

HEALTH REGISTER

Name of certifying Surgeon

Dr. Uttam R. Babar

From:

To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021			If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15
61	396	MR. ATISH TARE	M	41	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
62	302	MR. RAKESH SAROJ	M	32	2006	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
63	359	MR. ROSHAN MEHER	M	41	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
64	264	MR. MITESH MER	M	22	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
65	360	MR. SANTOSH TARE	M	43	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
66	265	MR. KARAN MHATRE	M	21	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
67	27	MR. MANOJ MAHATO	M	38	2012	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
68	263	MR. PRAKASH MHATRE	M	42	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
69	361	MR. TINKU PANDIT	M	31	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
70	51	MR. KEDAR PURANDARE	M	44	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
71	108	MR. ADITYA TRIPATHI	M	44	2014	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
72	105	MR. PURUSHOTTAM SINGH	M	51	2003	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
73	74	MR. HARISHANKAR MISHRA	M	35	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
74	321	MR. RAVIROSHAN SINGH	M	21	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
75	259	MR. MANILAL BARI	M	46	2015	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
76	256	MR. DIPAK BARI	M	50	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
77	262	MR. SANTOSH MHATRE	M	29	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
78	260	MR. RAVINDRA MER	M	30	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
79	86	MR. AKASH B. PATIL	M	25	2019	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
80	365	MR. GAUTAM MANDAL	M	22	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	

AC: Aluminum Chloride
 MB: Monochloro Benzene
 CC: Cyanuric Chloride



कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
 पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक

क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}
HEALTH REGISTER

Name of certifying Surgeon
Dr. Uttam R. Babar

From:
To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Work s No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021	If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
81	295	MR. JAIPRAKASH TURI	M	24	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
82	47	MR. PRASHANT FEGADE	M	45	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
83	40	MR. VAIBHAV KHAMBAYAT	M	27	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
84	142	MR. PINAKI D. SARKAR	M	50	2018	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
85	211	MR. NEVAL RANA	M	37	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
86	251	MR. KISHAN YADAV	M	38	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
87	345	MR. AKASH SINGH	M	23	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
88	37	MR. BHUSHAN PATIL	M	26	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
89	26	MR. BHOJRAJ MAJHI	M	38	2012	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
90	364	MR. ANIRUDHA THATURKAR	M	18	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
91	85	MR. ABHIJIT CHOUGULE	M	29	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
92	204	MR. SAROJ MAHTO	M	27	2014	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
93	291	MR. VIRENDRA KUMAR YADAV	M	39	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
94	101	MR. CHANDAN K. MAHATO	M	40	2012	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
95	49	MR. SHIVAJI BHILARE	M	55	2005	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
96	50	MR. SIBENDRA JENA	M	46	2011	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
97	294	MR. NANDLAL GOPE	M	28	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
98	310	MR. DEVENDRA SINGH	M	33	2008	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
99	221	MR. SATYABHAN NAIK	M	34	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
100	014	MR. LALIT BHIRUD	M	32	2017	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	

AC: Aluminum Chloride
MB: Monochloro Benzene
CC: Cyanuric Chloride

UBabbar
कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शाल्यचिकित्सक
क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}

HEALTH REGISTER

Name of certifying Surgeon

Dr. Uttam R. Babar

From:

To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Work s No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021			If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15
101	19	MR. HEMRAJ PATIL	M	31	2021	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
102	38	MR. NILESH CHAUDHARI	M	34	2020	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
103	208	MR. AMAR PATEL	M	29	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
104	242	MR. RAJU PATEL	M	22	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
105	226	MR. INDAL KUMAR	M	41	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
106	313	MR. SAGAR ANUSE	M	27	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
107	298	MR. BAIKUNTHA NAIK	M	19	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
108	315	MR. VINAY YADAV	M	30	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
109	60	MR. VISHAL MALI	M	26	2019	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
110	235	MR. SHRINIVASH YADAV	M	29	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
111	36	MR. KUNDALIK SHINDE	M	50	2012	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
112	299	MR. PAPPU SINGH	M	21	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
113	276	MR. VIDYASAGAR SHAH	M	30	2010	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
114	223	MR. PRANNATH PATHAK	M	46	2013	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
115	207	MR. AJIT PASWAN	M	22	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
116	244	MR. UMESH GOPE	M	40	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
117	246	MR. TRILOCHAN SETHI	M	29	2008	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
118	234	MR. BAVAN SADA	M	25	2012	N. A.	N. A.	Worker	AC,MB,CC	Fit			No	N. A.	N. A.	
119	54	MR. CHETAN TAMORE	M	31	2016	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	
120	106	MR. PAWAN TIWARI	M	36	2018	N. A.	N. A.	Staff	Nil	Fit			No	N. A.	N. A.	

AC: Aluminum Chloride
 MB: Monochloro Benzene
 CC: Cyanuric Chloride

Uttam R. Babar
 कारखाने अधिनियम १९४६ च्या कलम १०(२) प्रमाणे
 पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक
 क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}
HEALTH REGISTER

Name of certifying Surgeon
Dr. Uttam R. Babar

From:
To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021	If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
121	111	MR. SHARAD BORSE	M	28	2021	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
122	261	MR. KEVAL MER	M	34	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
123	52	MR. HARSHAL P. KIRANGE	M	28	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
124	305	MR. MAHESH RAWARE	M	50	2010	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
125	233	MR. RAHUL CHOUBEY	M	19	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
126	285	MR. ANKIT KUMAR	M	25	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
127	312	MR. MURLI NAG	M	37	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
128	241	MR. RAHUL MANE	M	21	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
129	247	MR. MAHIP MISHRA	M	51	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
130	225	MR. ASHARAM DAYAL	M	28	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
131	278	MR. SUNIL R. KUMAR	M	22	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
132	270	MR. DHARMENDRA N. KUMAR	M	33	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
133	272	MR. GANESH GABALE	M	23	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
134	206	MR. YAMUNAPRASAD CHAUHAN	M	38	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
135	53	MR. SANDEEP MALI	M	34	2015	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
136	253	MR. SHIVANATH GOPE	M	30	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
137	238	MR. SAHEB HARIJAN	M	41	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
138	55	MR. DHIRAJ ZAMBARE	M	26	2018	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
139	231	MR. ASHOK KUMAR	M	38	2016	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
140	316	MR. ABHINANDAN PANDEY	M	24	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	

AC: Aluminum Chloride
MB: Monochloro Benzene
CC: Cyanuric Chloride

Dr. Uttam R. Babar
कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक
क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}
HEALTH REGISTER

Name of certifying Surgeon
Dr. Uttam R. Babar

From:
To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Work s No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021	If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
141	209	MR. SHASHI MISHRA	M	44	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
142	322	MR. TUSHAR A. PATEL	M	22	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
143	304	MR. KUSHAL RAVARE	M	37	2010	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
144	349	MR. VINOD PATEL	M	20	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
145	347	MR. AMIT SINGH	M	27	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
146	33	MR. TINKU SETHI	M	31	2018	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
147	72	MR. RAJKUMAR PANDEY	M	32	2012	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
148	114	MR. SANJAY GAWAS	M	48	1997	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
149	3	MR. HEMRAJ BANNAGRE	M	44	2021	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
150	17	MR. SANJAY YADAV	M	29	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
151	32	MR. SANJAY KAMBLI	M	48	2018	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
152	10	MR. RAMESH KUMAR	M	48	2013	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
153	83	MR. SURESH LOKHANDE	M	53	2018	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
154	227	MR. RAMPRASAD SHIVLI	M	32	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
155	80	MR. PRATIK RAUT	M	32	2008	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
156	79	MR. KUNAL PHATAK	M	36	2008	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
157	327	MR. S.K. DUBEY	M	52	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
158	148	MR. NILESH PATIL	M	34	2004	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
159	358	MR. AKHILESH PANDEY	M	25	2012	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
160	22	MR. MAHENDRA GHARAT	M	54	1997	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	

AC: Aluminum Chloride
MB: Monochloro Benzene
CC: Cyanuric Chloride

Uttam R. Babar
कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक
क्र. ACS 31 UB/2016

FORM NO. 7

{Prescribed under Rule 18 (7)}
HEALTH REGISTER

Name of certifying Surgeon
Dr. Uttam R. Babar

From:
To:

{In respect of persons employed in occupations declared to be dangerous operations under Section 87}

SAREX OVERSEAS, M.I.D.C., TARAPUR

Sr No	Works No.	Name of Worker	Sex	Age	Date of employment of present work	Date of Leaving or Transfer to other work	Reason for leaving / Transfer discharge	Nature of job or Occupation	Raw Material or Byproduct handled	Date of Medical Examination by Certifying Surgeon & Result of Medical Examination 13-08-2021	If suspended from work state period of suspension with detailed reasons	Rectified fit to resume duty on with signature of Certifying Surgeon	If certificate of un fitness or suspension issued to worker	Signature With Date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
161	368	MR. SITARAM MAHTO	M	25	2017	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
162	220	MR. DEEPNARAYAN SEN	M	32	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
163	317	MR. RAVI GADDAM	M	42	2019	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
164	350	MR. RITIK SINGH	M	27	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
165	363	MR. VISHAL BABU	M	19	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
166	250	MR. ANTOSH GOP	M	38	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
167	357	MR. ANKUL KUMAR	M	21	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
168	300	MR. PAVAN KUMAR	M	21	2020	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
169	284	MR. SONU KUMAR	M	21	2021	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
170	95	MR. GIRISH DEO	M	41	2014	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
171	333	MR. SACHIN TIWARI	M	25	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
172	330	MR. AWADHESH JAISWAL	M	54	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
173	88	MR. GANPAT KADU	M	55	1995	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
174	328	MR. VIJAY SINGH	M	51	2018	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
175	78	MR. NITIN AMRUTE	M	46	2002	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
176	329	MR. AKHILESH SINGH	M	31	2007	N. A.	N. A.	Worker	AC,MB,CC	Fit	No	N. A.	N. A.	
177	77	MR. RAJESH DWIWEDI	M	46	2017	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
178	87	MR. MUKESH AGRAWAL	M	40	2010	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
179	91	MR. LAXMINARAYAN VERMA	M	56	1999	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	
180	82	MR. JITENDRA YADAV	M	26	2019	N. A.	N. A.	Staff	Nil	Fit	No	N. A.	N. A.	

AC: Aluminum Chloride
MB: Monochloro Benzene
CC: Cyanuric Chloride

Uttam R. Babar
कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
पालघर जिल्ह्याकरीता प्राधिकृत प्रमाणक शल्यचिकित्सक
क्र. ACS 31 UB/2016

Annexure – 12

Photographs of the firefighting equipment

Sarex Overseas

(A Division of Sarex Chemicals Pvt. Ltd.)

Plot No. N-129 to N-132, MIDC Tarapur, Boisar-401506. , Maharashtra.

Details of Fire Control Measures

<u>Sr. No.</u>	<u>Pump</u>	<u>Driven By</u>	<u>HP</u>	<u>Head</u>	<u>Capacity</u>	<u>Suction</u>	<u>Discharge</u>
1	Jockey	Electricity	10	70 M	180 RPM	2"	1"
2	Jockey [Stand By]	Electricity	10	70 M	180 RPM	2"	1"
3	Electrical (Main)	Electricity	75	70 M	2900 RPM	5"	4"
4	Diesel	Diesel Oil	72	70 M	2150 RPM	5"	3"

Above ground RCC Fire Hydrant Water Storage Tank Capacity : 400 m3.

Sarex Overseas

(A Division of Sarex Chemicals Pvt. Ltd.)

Plot No. N-129 to N-132, MIDC Tarapur, Boisar-401506. , Maharashtra.

Sr.No	Fire Fighting Equipment	Qty in Nos.
1	ABC Type 10 KG	1
2	ABC Type 09 KG	2
3	ABC Type 06 KG	31
4	ABC Type 04 KG	7
5	ABC Type 02 KG	2
6	DCP Type 10 KG	2
7	DCP Type 05 KG	3
8	CO2 Type 09 KG	5
9	CO2 Type 6.5 KG	2
10	CO2 Type 4.5 KG	21
11	CO2 Type 03 KG	22
12	M Foam 50 Ltr	5
13	M Foam 49 Ltr	8
14	Fire Hydrant Storage Tank 400 m3	1
15	Fire Hydrant Jockey Pump	1
16	Fire Hydrant Main Pump	1
17	Fire Hydrant Diesel Pump	1
18	Fire Hydrant System	1
19	Foam monitor cum Trolly	1
20	Foam Monitor	2
21	Fire Hose Pipe & Box Single Door	13
22	Fire Hose Pipe & Box Double Door	22
23	Fire Hose Reel & Drum	12
24	Fire Hydrant Valve Single	39
25	Fire Hydrant Valve Double	1
26	Fire Alarm System	1

FIRE FIGHTING EQUIPMENTS



FIRE FIGHTING EQUIPMENTS



FIRE FIGHTING EQUIPMENTS



Annexure – 13

Latest copy of Form-4



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

Form 4

See rules 6(5),13(8),16(6) and 20(2) of Hazardous and other wastes 2016

FORM FOR FILING ANNUAL RETURNS

[To be submitted to state pollution control board/pollution control committee by 30th June of every year for the preceeding period April to march]

Unique Application Number:

MPCB-HW_ANNUAL_RETURN-0000023394

Submitted On:

08-07-2021

Submitted for Year:

April 2020 to March 2021

1. Name of the generator/operator of facility

SAREX OVERSEAS (A Div of Saraf Chemicals Ltd.)

Address of the unit/facility

PLOT NO. N-129, 130,131, & 132, M.I.D.C., TARAPUR
INDL AREA, BOISAR (W)

1b. Authorization Number

FORMAT 1.0/BO/AS(T)/UAN NO. 0000003528/CC-2005000009 May 8, 2020

Date of issue

**Date of
validity of
consent**

Feb 28, 2023

2. Name of the authorised person

MR N SALGIYA

Full address of authorised person

PLOT NO. N-129, 130,131, & 132, M.I.D.C., TARAPUR
INDL AREA, BOISAR (W)

Telephone

9011255980

Fax

Email

sfplant@sarex.com

3. Production during the year (product wise), wherever applicable

Product Type *	Product Name *	Consented Quantity	Actual Quantity	UOM
Chemical ,Petrochemical &Electrochemical	Ven-2	120.0000	109	MT/A
Chemical ,Petrochemical &Electrochemical	5-Ethyl Pyridine-2 Ethanol	48.0000	47.827	MT/A
Chemical ,Petrochemical &Electrochemical	Diphenic Acid	6.0000	0.003	MT/A
Chemical ,Petrochemical &Electrochemical	3,5-Dinitro Aniline	12.0000	10	MT/A
Chemical ,Petrochemical &Electrochemical	Mercaptan Thiol	60.0000	0.420	MT/A
Chemical ,Petrochemical &Electrochemical	Anthranilamide	6.0000	1.026	MT/A
Chemical ,Petrochemical &Electrochemical	DPDS	2.4000	0.039	MT/A
Chemical ,Petrochemical &Electrochemical	2,4 Thiozoldindion	21.6000	16.0	MT/A
Chemical ,Petrochemical &Electrochemical	DDH	60.0000	10.321	MT/A
Chemical ,Petrochemical &Electrochemical	Other organic Hydrocarbons	174.6000	168.608	MT/A
Chemical ,Petrochemical &Electrochemical	Other Trizene Products	24.0000	24	MT/A
Chemical ,Petrochemical &Electrochemical	Other Helogen Organics Products	632.4000	595.760	MT/A
Chemical ,Petrochemical &Electrochemical	Other Amino Compounds	93.0000	15	MT/A
Chemical ,Petrochemical &Electrochemical	1Phenyl-1 Cyclopentane Carboxylic Acid	12.0000	1.350	MT/A
Chemical ,Petrochemical &Electrochemical	Homophalic Acid	6.0000	0.320	MT/A

Chemical ,Petrochemical &Electrochemical	Other organic carboxylic Acid compounds	60.0000	29.803	MT/A
Chemical ,Petrochemical &Electrochemical	Other Textile Chemicals	696.0000	3.913	MT/A

PART A: To be filled by hazardous waste generators

1. Total Quantity of waste generated category wise

Type of hazardous waste	Wate Name	Consented Quantity	Quantity	UOM
20.3 Distillation residues	DISTILLATIN RESIDUE	120.000	46.13	MTA
20.4 Process Sludge	PROCESS RESIDUE	36.000	27.49	MTA
20.2 Spent solvents	SPENT SOLVENT	6000.000	157.5	MTA
35.3 Chemical sludge from waste water treatment	ETP sludge	240.000	226.01	MTA

2. Quantity dispatched category wise.

Type of Waste	Quantity of waste	UOM	Dispatched to	Facility Name
20.3 Distillation residues	46.13	MTA	Disposal Facility	CHWTSDF
20.4 Process Sludge	27.49	MTA	Disposal Facility	CHWTSDF
20.2 Spent solvents	157.5	MTA	Disposal Facility	CHWTSDF
35.3 Chemical sludge from waste water treatment	226.01	MTA	Disposal Facility	CHWTSDF

3. Quantity Utilised in-house,If any

Type of Waste	Name of Waste	Quantity of Waste	UOM
--	--	0	KL/Anum

4. Quantity in storage at the end of the year

Type of Waste	Name of Waste	Quantity of Waste	UOM
--	--	0	KL/Anum

PART B: To be filled bt Treatment,storage, and disposal facility operators

1.Total Quantity received	UOM	State Name
NA	KL/Anum	Maharashtra
2. Quantity in stock at the beginning of the year	UOM	
NA	KL/Anum	
3. Quantity treated	UOM	
NA	KL/Anum	
4. Quantity disposed in landfills as such and after treatment		
Direct landfilling	UOM	
0	KL/Anum	
Landfill after treatment	UOM	
0	KL/Anum	
5. Quantity incinerated (if applicable)	UOM	
0	KL/Anum	
6. Quantiry processed other than specified above	UOM	
NA	KL/Anum	
7. Quantity in storage at the end of the year.	UOM	
NA	KL/Anum	

PART C: To be filled by recyclers or co-processors or other users

1. Quantity of waste received during the year

Waste Name/Category	Country Name	State Name	Quantity of waste received from domestic sources	Quantity of waste imported(If any)	Units
NA	India	Maharashtra	NA	NA	KL/Anum

2. Quantity in stock at the beginning of the year

Waste Name/Category	Quantity	UOM
NA	NA	KL/Anum

3. Quantity of waste recycled or co-procesed or used

Name of Waste	Type of Waste	Quantity	UOM
NA	NA	NA	KL/Anum

4. Quantity of products dispatched (wherever applicable)

Name of product	Quantity	UOM
NA	NA	KL/Anum

5. Total quantity of waste generated

Waste name/category	quantity	UOM
NA	NA	KL/Anum

6. Total quantity of waste disposed

Waste name/category	quantity	UOM
NA	NA	KL/Anum

7. Total quantity of waste re-exported (If Applicable)

Waste name/category	quantity	UOM
NA	NA	KL/Anum

8. Quantity in storage at the end of the year

Waste name/category	quantity	UOM
NA	NA	KL/Anum

Personal Details

Place	Date	Designation
TARAPUR	2021-07-08	VICE PRESIDENT



Towards sustainable growth

Mumbai Waste Management Limited

Certificate

M/s. Sarex Overseas

is a registered member of
CHW-TSDF at MIDC, Taloja
for safe & secure disposal of
Hazardous Waste.

Membership no.: MWML - HzW ...TAR...1135

This Certificate is valid up to

31st March 2023

Onkar A. Kulkarni
Manager - MBD

Somnathi Malgar
Director

Annexure – 14

Latest mock drill report

MOCK DRILL

Date: 10/02/2022

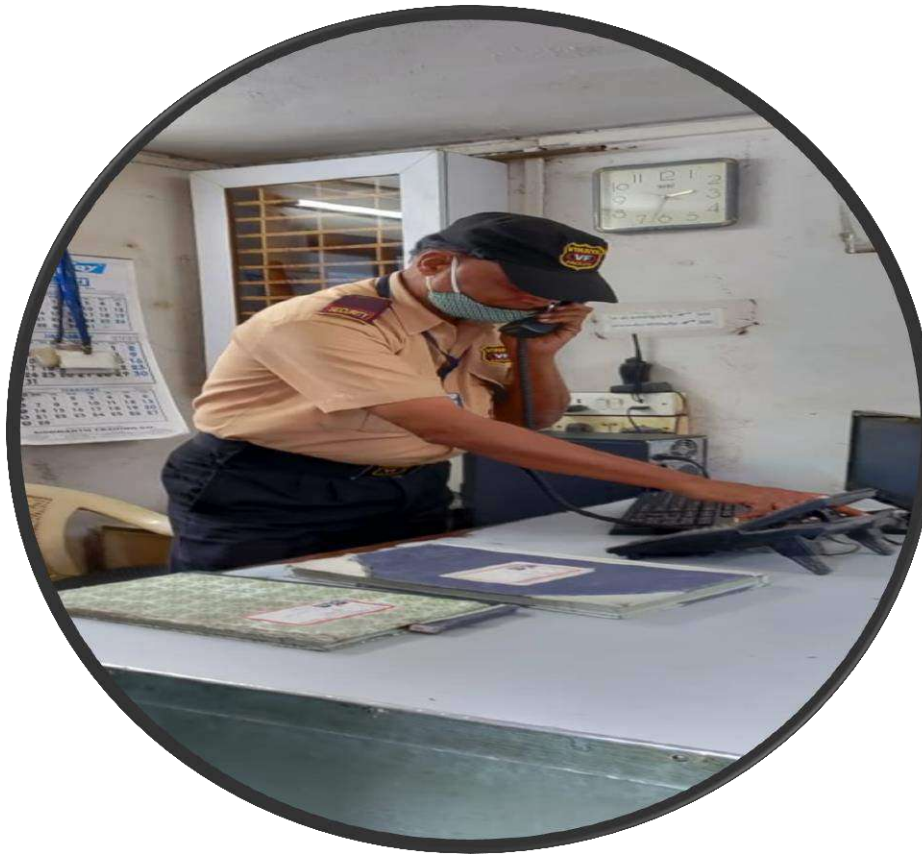
M/S. SAREX OVERSEAS

[Division of Saraf Chemicals Pvt Ltd.]

**Plot No. N-129 to N-132, MIDC Tarapur, Boisar,
Tal. Dist. Palghar-401506**



Security person received the Emergency call.



**Security person sent the incident information to
SMC & Emergency Team members.**



Security person Start the Emergency Siren.



Victim Unconscious on the floor.



Evacuation



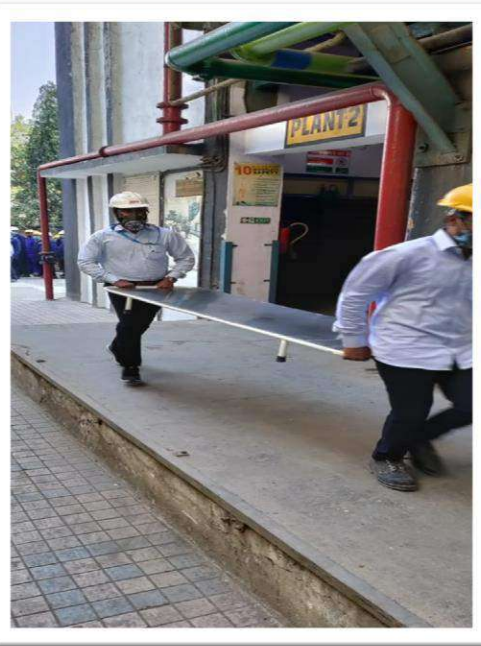
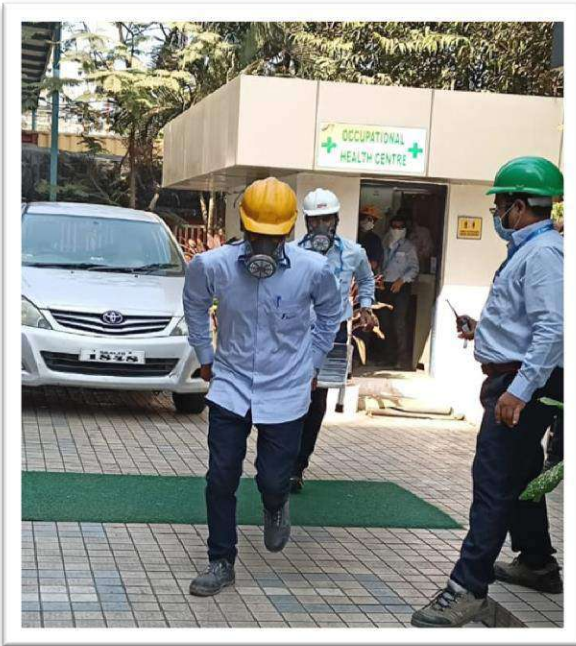
EHS Manager Called to Emergency Services



Chief Disaster Controller Monitoring



Head Counting



Rescue Operation



Medical Officer Inspect to Victim in OHC



Gas Leakage closing activity



Victim Sent to Hospital in Emergency Vehicle



**Incident Controller going to convey the message
Emergency clear.**



**Chief Disaster Controller, Site Main Controller,
Incident Controller & Team visited at Incident
Location.**



Emergency All Clear Siren.



Group Discussion with All Team Members.



Mock Drill Summaries.

SAREX OVERSEAS

[A Division of Saraf Chemicals Pvt Ltd.]
Plot no. N-129 to N-132, MIDC Tarapur, Boisar, Tal Dist. Palghar-401506.

Date :-10/02/2022

MOCK DRILL REPORT

A Planned Chlorine gas leakage mock drill Was conducted on 10/02/2022 at chlorine gas station area during chlorine gas charging activity.

Scenario :- chlorine gas charging activity, chlorine gas leakage was found at header. Due to that chlorine gas transfer line break.

Observers :-

1) Mr. Laxminarayan Verma

2) Mr. Satish Dige

Incident Controller(IC) :- Mr. Kailas Bhangale.

Site Main Controller(SMC) :- Mr. Dinkar L. Patil

Chief Disaster Controller (CDC) :- Shri. Naresh S. Salgiya.

SR.NO	TIME	ACTIVITY
01	14:35	Chlorine gas leakage observed.
02	14:37	Mr. Raju Pandey saw chlorine gas and shouted "gas leakage, gas leakage " .
03	14:39	During that period other operator Mr. Raju Pandey rush toward security gate with shouting " gas leakage " and inform security about the gas leakage.
04	14:40	Security person immediately informed to Incident controller about the fire.
05	14:42	Incident controller (IC) Mr. Kailas Bhangale ,immediately reached. He saw the scenario and immediately informed to Site Main Controller (SMC) Mr. D. L. Patil.

SAREX OVERSEAS

[A Division of Saraf Chemicals Pvt Ltd.]

Plot no. N-129 to N-132, MIDC Tarapur, Boisar, Tal Dist. Palghar-401506.

06	14:42	Simultaneously said information received by Chief Disaster Controller (CDC) Sri. N S Salgiya. And after that Sri. N S Salgiya. informed to security to blow Emergency siren declaring emergency.
07	14:44	ERT team and safety department arrived at incident point and start to arrest the gas leakage.
08	14:46	Exposed employee shifted by rescue team to First aid room and then shifted to hospital for further treatment.
09	14:49	During that period all the employees and workers assemble at assembly point no. 1
10	14:53	Head counting done by Mr. Rajesh Dwivedi and Mr. Nitin Amrute and inform to CDC & SMC about the total manpower.
11	14:48	Area isolated & rescue team member wear the PPE's to attend the gas leakage.
12	14:51	IC inform to SMC & CDC about gas leakage under control.
13	14:53	SMC & CDC reached to Incident area and after observation informed security to blow all clear siren.
14	14:54	Head count and reporting to SMC & CDC.
15	15:55	All Clear Siren indicating emergency is over. All Clear :- 1 Minute long continue high pitch signal.

Review Meeting :

After mock drill a review meeting was conducted to revise lacunas and for making action plan.

Following member were present for meeting.

NSS/LNV/DLP/RD/NGA/EMERGENCY SQUAD MEMBERS/EHS

Good Points:

- 1) Security started traffic control on gate.
- 2) Un-Authorized persons not allowed by security department.

SAREX OVERSEAS

[A Division of Saraf Chemicals Pvt Ltd.]

Plot no. N-129 to N-132, MIDC Tarapur, Borsar, Tal Dist. Palghar-401506.

3) First -Aid given to victim in victim.

4) Operator shouting Gas leakage---- Gas leakage ---- Gas leakage ---- FOR help.

Need to Improvements :

- 1) Instructions to be given by only Chef Disaster Controller.
- 2) Impart the mock drills frequently.
- 3) Arrange the foldable soft stretcher.

Action Plan:

Sr. No	Lacunas	Action plan for improvement	Responsibility	Target Date	Remarks
01	Instructions to be given by only Chief Disaster Controller.	Training to members.	Sharad	20/02/2022	
02	Impart the mock drills frequently.	Next mock drill plan shortly.	DLP/ Rajesh	25/05/2022	
03	Arrange the foldable soft stretcher.	Purchase Shortly.	Sharad	16/03/2022	

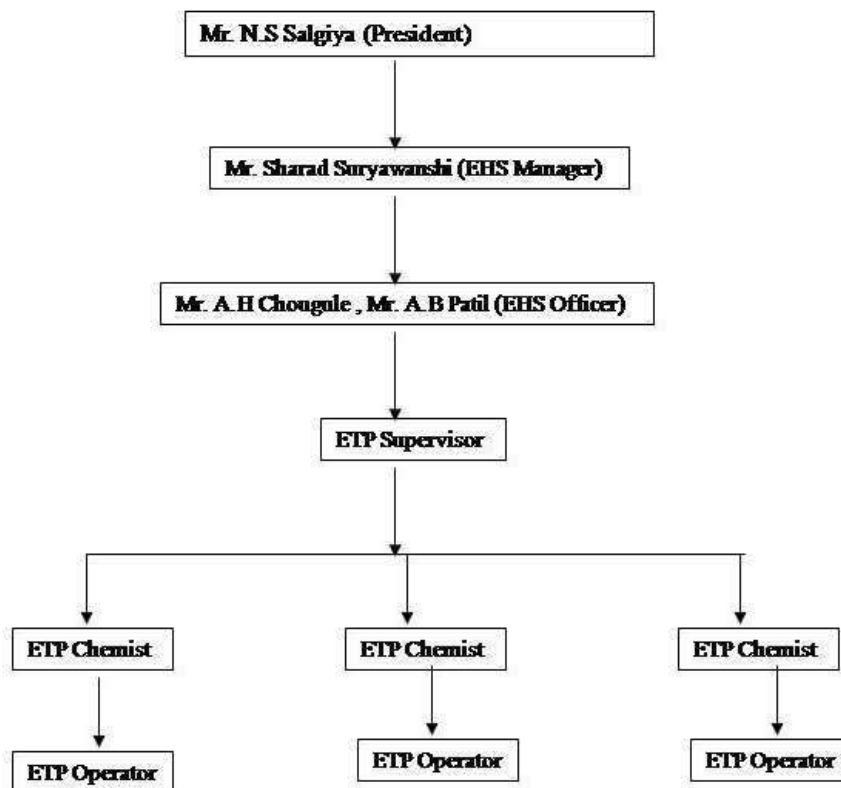

Mr. Sharad S. Suryawanshi.

Manager EHS.

Annexure – 15

Structure of the Environmental Management Cell along with responsibilities of the personnel

Structure of the Environmental Management Cell (EMC)



Responsibilities of the EMC personnel

Sr. No	Personnel	Responsibility
1.	ETP Operator	<ul style="list-style-type: none">• The supervisor shall visit and check the devices daily. He will see that the ETP is working properly and flow measurements are recorded properly in a register.• The effluent from the ETP shall be got checked by him in the Laboratory once a week. Any parameter going out of the prescribed limits will be reported to the EHS Manager for taking corrective action. He will pursue the matter at personal level to bring the parameters within permissible limits.• The EHS Manager will keep in touch with the Environmental

		<p>Consultant and seek their guidance for corrective action as and when required.</p> <ul style="list-style-type: none"> • The Committee shall meet once every month to ensure implementation of the programme. • The EHS Manager will bring to the notice of the Managing Director any further action to be taken to ensure environmental requirements. The Managing Director will report to the Board of Directors, the action taken to set right deficiency, if any. • Maintain the records / inventory of the solid waste generated at the site for onward disposal to the MPCB authorized vendor • Interface with the SWM machinery vendor for the maintenance of all the equipment related to the segregation of the solid waste at site • Supervise the segregation of the solid waste at the site. • Makes necessary field inspections to assure safe working conditions and that established methods and policies are followed. • To ensure compliance with the Solid Waste Management Rules 2016 and all the relevant statutes.
2.	ETP Chemist	<ul style="list-style-type: none"> • To analyse the samples collected for the environmental components such as air, water, noise and soil. • To maintain the records of the results of analysis • To maintain the laboratory equipment in working condition. • To identify the budgetary requirements for the upkeep of the environmental laboratory. • To oversee / supervise the environmental monitoring , if outsourced to the MoEF/NABL accredited laboratory. • To report the exceedance of the relevant parameters w.r.t regulatory standards and bring it to the notice of the Environmental Manager for corrective action.
3.	ETP Supervisor	<ul style="list-style-type: none"> • To Supervise the All ETP Plant. • To manage & arrange the manpower of ETP Plant. • To Supervise the all activity of every shift.

		<ul style="list-style-type: none"> • To update & maintained the all records which is related to all activity of ETP Plant. • To update the ETP plant housekeeping.
4.	Safety Officer	<ul style="list-style-type: none"> • To periodically review and update the Disaster Management Plan of the Sarex. • To keep a log / checklist of the potential incidents / accidents that may occur in the ETP Plant. • To conduct mock drills with the safety heads of the ETP Plant. • To ensure the preparedness of Sarex to counter any emergency. • To ensured that the ETP plant shall be running smoothly. • To ensured that ETP plant results shall be as per MPCB norms.
5.	EHS Manager	<ul style="list-style-type: none"> • To manage & maintain the all ETP plant. • To achieve & meets the parameters as per CTO. • To close bound with all ETP team. • To take the reports from every shift. • To direct to all ETP team. • To guide & monitor the all troubles in ETP Plant. • To review the all ETP plant work & day to day report to MIS.
6.	President	<ul style="list-style-type: none"> • Overall accountable for all EHS related issues of factory. • Ensure observance of the statutory requirements of the Govt. authorities such as the factory inspector, pollution control board, financial institutions, MIDC, Labour inspector and other related departments and submit the statutory compliance report. • Responsible for ensuring & providing of safe working condition for all employees working at Tarapur works. Ensure that all possible cares are taken to ensure safety of man, material and machinery and all assets of the company. • Induction of experienced and qualified personnel in the group as per the requirement of their training and retention. • Attend all quires of any related Govt. departments and resolve the matters. If needed visit to these offices. • Ensure that HAZOP study and Disaster Control Management

		<p>Plan is made and understood by the Employees required training, mock drill etc.</p> <ul style="list-style-type: none">• Will ensure and act to prevent environment. Will put all efforts to protect the environment. also responsible to bring to the notice of management about any measures to be taken to protect the environment aspects.
--	--	--

Annexure – 16

**Photograph of the monitoring
data displayed**

Ambient Levels / Emissions Monitoring Results

Ambient Levels / Emissions Monitoring Results			
Sr.	Parameters	Results	Limit
1	Stack Boiler S2		
	Total Particulate Matter	100 mg/ Nm3	150 mg/ Nm3
2	D. G Set 500 KVA Stack S-3		
	Total Particulate Matter	103 mg/ Nm3	150 mg/ Nm3
3	Process Stack S-5		
	Total Particulate Matter	75 mg/ Nm3	150 mg/ Nm3
	SO2	13 ppm	50 ppm
	HCl	0.4 mg/ Nm3	15 mg/ Nm3
4	Process Stack S-4		
	Total Particulate Matter	70 mg/ Nm3	150 mg/ Nm3
	SO2	11 ppm	50 ppm
	HCl	0.12 mg/ Nm3	15 mg/ Nm3
5	Process Stack S-6		
	Total Particulate Matter	71 mg/ Nm3	150 mg/ Nm3
	SO2	11 ppm	50 ppm
	HCl	0.15 mg/ Nm3	15 mg/ Nm3
6	Process Stack S-7		
	Total Particulate Matter	71.5 mg/ Nm3	150 mg/ Nm3
	SO2	11 ppm	50 ppm
	HCl	0.15 mg/ Nm3	15 mg/ Nm3
7	Process Stack S-8		
	Total Particulate Matter	71.5 mg/ Nm3	150 mg/ Nm3
	SO2	11 ppm	50 ppm
	HCl	0.15 mg/ Nm3	15 mg/ Nm3

realme

Shot by SSSURYAWANSHI

2022/10/19 11:11:58

Annexure – 17

Latest copy of the Form-V



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2021

Unique Application Number

MPCB-ENVIRONMENT_STATEMENT-0000035650

Submitted Date

18-09-2021

PART A

Company Information

Company Name

SAREX OVERSEAS (A Div of Saraf Chemicals Ltd.)

Application UAN number

MPCB-CONSENT-0000038738

Address

PLOT NO. N-129, 130,131, & 132, M.I.D.C., TARAPUR INDL AREA, BOISAR (W)

Plot no

PLOT NO. N-129, 130,131, & 132,

Taluka

PALGHAR

Village

TARAPUR

Capital Investment (In lakhs)

5744

Scale

LSI

City

BOISAR

Pincode

401506

Person Name

MR N SALGIYA

Designation

PRESIDENT

Telephone Number

9011255980

Fax Number

Email

sfplant@sarex.com

Region

SRO-Tarapur I

Industry Category

Red

Industry Type

R58 Pharmaceuticals

Last Environmental statement submitted online

yes

Consent Number

MPCB-CONSENT-0000038738

Consent Issue Date

31/05/2018

Consent Valid Upto

28/02/2023

Establishment Year

1969

Date of last environment statement submitted

Jul 17 2020 12:00:00:000AM

Industry Category Primary (STC Code) & Secondary (STC Code)

Product Information

Product Name

Ven-2

Consent Quantity

120

Actual Quantity

109

UOM

MT/A

5-Ethyl Pyridine-2 Ethanol

48

47.827

MT/A

Diphenic Acid

6

0.003

MT/A

3,5-Dinitro Aniline

12

10

MT/A

Mercaptan Thiol

60

0.420

MT/A

Anthranilamide

6

1.026

MT/A

DPDS

2.4

0.039

MT/A

2,4 Thiozoldindion

21.6

16

MT/A

DDH	60	10.321	MT/A
OTHER ORGANICS HYDROCARBONS	174.60	168.608	MT/A
OTHER TRIZENE PRODUCTS	24	24	MT/A
OTHER AMINO COMPOUNDS	93	15	MT/A
1PHENYL-1CYCLOPENTANE CARBOXYLIC ACID	12	1.350	MT/A
HOMOPHALIC ACID	6	0.320	MT/A
OHTER ORGANICS CARBOXYLIC ACID COMPOUNDS	60	29.803	MT/A
Other Helogen Organics Products	632.4	595.760	MT/A
Other Textile Chemicals	696	3.913	MT/A

By-product Information

By Product Name	Consent Quantity	Actual Quantity	UOM
--NA--	0	0	MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for Process	Consent Quantity in m3/day	Actual Quantity in m3/day
	80	48.9
Cooling	25	15.3
Domestic	15	9.2
All others	30	18.3
Total	150	90

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
TRADE EFFLUENT	51	31.1	CMD
DOMESTIC EFFLUENT	12.8	7.8	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
LIST ATTACHED	0.04	0.01	Kg/Annum

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
5-ETHYL-2-METHYL PYRIDINE	0.09	0.073	MT/A
ACETIC ACID	0.02	0.009	MT/A
ACTIVATED CHARCOL	0.01	0.03	MT/A
ALUMINIUM CHLROIDE ANHY	0.68	0.169	MT/A
BENZENE	0.01	0.026	MT/A
BIPHENYL	0.32	0.131	MT/A
CAUSTIC FALKES	0.03	0.009	MT/A
CAUSTIC LYE	0.42	0.115	MT/A

CHLORINE GAS	0.14	0.079	MT/A
CYNURIC CHLORIDE 99%	0.35	0.121	MT/A
DI ETHYLLENE GLYCOL	0.09	0.063	MT/A
ETHYL MERCAPTAN	0.06	0.036	MT/A
3-CHLOROBENZOIC ACID	0.01	0	MT/A
FORMIC ACID	0.09	0.065	MT/A
HCL GAS ANHYDROUS	0.09	0.028	MT/A
HCL	0.54	0	MT/A
4-BROMOANISOLE	0.01	0.001	MT/A
IPA	0.30	0.238	MT/A
METHANOL FRESH	0.44	0.167	MT/A
ETHYL ACETATE (COMMERCIAL)	0.02	0.008	MT/A
PARA FORMALDEHYDE	0.07	0.055	MT/A
MONO CHLOR ACETIC ACID	0.05	0.013	MT/A
N OCTYK CHLORIDE	0.06	0.025	MT/A
HEPTANE ISOMER MIX (F)	0.16	0.024	MT/A
POTASSIUM CARBONATE ANHY	0.13	0.051	MT/A
RESORCINOL	0.13	0.023	MT/A
TOLUENE	0.03	0.019	MT/A
TRIETHYL AMINE	0.13	0.004	MT/A
SERA PP03 (T508)	0.23	0.014	MT/A
TBAB	0.01	0	MT/A
META XYLENE	0.18	0.168	MT/A
PHOSP TRICHLORIDE	0.10	0.003	MT/A
2,4 DTBP	0.01	0	MT/A
SULPHURIC ACID	0.03	0.001	MT/A
SODIUM BICARBONATE	0.02	0	MT/A
SODIUM CARBONATE (COMMERCIAL)	0.01	0.003	MT/A
THIOUREA	0.04	0.010	MT/A
MONO CHLORO BENZEN	0.42	0.227	MT/A
TETRAHYDROFURAN (COMMERCIAL)	0.01	0	MT/A
TRIETHANOL AMINE ANHYDROUS(WA.	0.04	0	MT/A
TRIETHANOL AMINE	0.04	0.001	MT/A
MIBK	0.03	0.037	MT/A
ODCB	0.28	0.054	MT/A
PTHALIC ANHYDIDE	0.08	0.007	MT/A
1-pentanol	0.0005	0	MT/A
DMF	0.44	0.272	MT/A
AMMONIUM LIQUOR	0.26	0.124	MT/A
SERA PP-27	0	0.107	MT/A
SERA PP-08	0	0.011	MT/A

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
FURNACE OIL	1382400	37350	Ltr/A

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
pH	0	7.6	0	5.5-9.0	--NA--
COD	9.6	198.5	79.4	250 mg/l	--NA--
BOD	0.82	17	17	100 mg/l	--NA--
SS	2.9	60.5	60.5	100 mg/l	--NA--
OIL & GREASE	0	0	0	10 mg/l	--NA--
TDS	57.05	1175	55.95	2100 mg/l	--NA--

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3) Concentration	Percentage of variation from prescribed standards with reasons %variation	Standard	Reason
SPM /TPM	0	98	65.33	150 mg/Nm3	--NA--
SO2	7.4	0	2.7	275 KG/DAY	--NA--

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
20.2 Spent solvents	2.84	157.5	MT/A
20.3 Distillation residues	17.19	46.13	MT/A
20.4 Process Sludge	2.7	27.49	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
35.3 Chemical sludge from waste water treatment	27.94	226.01	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
--NA--	0	0	M3/Anum

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
--------------------------	--------------------------------------	-------------------------------------	-----

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
20.3 Distillation residues	46.13	MT/A	CHWTSDF, TALOJA
35.3 Chemical sludge from waste water treatment	226.01	MT/A	CHWTSDF, TALOJA
20.2 Spent solvents	157.5	MT/A	CHWTSDF, TALOJA
20.4 Process Sludge	27.49	MT/A	CHWTSDF, TALOJA

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
--NA--	0	M3/Anum	-

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
E.T.P. Operation cost ,Cost of Consumables ,Cost of Analysis of ,Effluent Sample ,Electrical Energy, Environment audit Statement ,Water Supply ,Water Cess Returns, House Keeping	0	0	0	0	75	0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
At present, the existing environmental protection system are considered to be adequate. For treatment of waste water company has provided the Effluent Treatment Plant	Oil & Grease trap • Screen Chamber • Equalization Tank • Neutralization Tank with Aeration. • Primary Settling Tank • Sludge Drying Bed. • Secondary Settling tank 1 No. •Air Blower • Carbon Filter	15

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)
NA	NA	0

Part-I

Any other particulars for improving the quality of the environment.

Particulars

Company has planted few number of trees around the factory, within company’s own land premises. The hazardous waste generated is being sent to CHWTSD Facility for disposal. Noise level survey, cess returns & house keeping are done regularly. The Soak Pit & Septic Tank is provided for the treatment of Domestic effluent. Environment and safety aspects is of prime importance and is incorporated at the Design and energy aspects of operations. Green drive is the major contribution to create the en

Name & Designation

MR N SALGIYA

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000035650

Submitted On:

18-09-2021

Annexure – 18

**Solvent recovery data for the
October 2021 to March 2022**

M/S. SAREX OVERSEAS
[A Div. Of Saraf Chemicals Pvt Ltd]
Plot No. N-129 to 132, MIDC, Tarapur, Boisar, Tal. Dist. Palghar-401506.

Solvent recovery production details			
Sr. No	Month	Solvent Name	SRP Production in Tons
1	Oct-21	MCB	134.19
2	Nov-21	MCB	141.17
3	Dec-21	MCB	148.65
4	Jan-22	MCB	154.81
5	Feb-22	MCB	160.67
6	Mar-22	MCB	144.29

Annexure – 19

**NOC from MIDC for the
green belt development on the
Open Space plots outside the
factory premises**

महाराष्ट्र औद्योगिक विकास महामंडळ
(महाराष्ट्र शासन अंगिकृत)



कार्यालयाचा पत्ता : प्रादेशिक कार्यालय, मऔविम, ठाणे विभाग, ऑफिस कॉम्प्लेक्स
बिल्डींग, पहिला मजला, वागळे इस्टेट, ठाणे-४०० ६०४.

जा.क्र. मऔविम/मु.का.अ./प्रा.का.ठाणे-१/तारापूर/ १९७३/

दिनांक :-२२/०७/२०२१.

प्रति,
M/s. Sarex Overseas
(A Division of Saraf Chemicals Pvt. Ltd)
Plot No. N-१२९ to N-१३२, MIDC,
Tarapur, Dist-Palghar-४०१ ५०६.

विषय:- तारापूर औद्योगिक क्षेत्र
वृक्ष लागवडीकरीता ना हरकत प्रमाणपत्र(NOC)
संदर्भ:- आपले सहमती e-mail पत्र दिनांक २२/०७/२०२१.

महोदय,

महामंडळाच्या औद्योगिक क्षेत्रातील राखीव असलेल्या मोकळ्या जागांवर चांगल्या प्रतीची वृक्ष लागवड करून हरीत एमआयडीसी मोहिम राबविण्याचा महामंडळाने निर्णय घेतलेला असून महामंडळाच्या तारापूर औद्योगिक क्षेत्रातील मोकळी जागा क्र.OS-६१, OS-६/१, OS-४ क्षेत्र अनुक्रमे ८७६ चौ.मी., ३७१९ चौ.मी आणि २९२८ चौ.मी. वर वृक्षलागवड करणेकरीता आपण संदर्भित पत्रान्वये सहमती दर्शविल्यानुसार, आपणांस सदरहू मोकळ्या जागेवर वृक्षलागवड करण्याकरीता (सदरहू जागेवर आपला कोणताही मालकी हक्क असणार नाही) खालील अटी व शर्तीवर ना हरकत प्रमाणपत्र(NOC) देण्यात येत आहे.

१. आपणांस सदरहू जागेवर MIYAWAKI Techniques पद्धतीने वृक्षारोपण करावयाचे आहे.
२. जागेचा वापर फक्त MIYAWAKI Techniques पद्धतीने वृक्षारोपण करण्यात यावी व आराखडयास महामंडळाच्या विशेष नियोजन प्राधिकरण (Special Planning Authority) यांचेकडून मान्यता घेण्यात यावी. माहिती फलक लावता येईल.
३. जागेवर महामंडळाचे कुंपण असेल तर सदर कुंपणीची निगा व देखभाल करण्याची जबाबदारी भूखंडधारकाची राहिल.
४. कोणतेही कारण न देता एका महिन्याची नोटीस देऊन ना हरकत पत्र रद्द करण्याचा हक्क महामंडळास राहिल.
५. सदर जागेच्या हद्दीत जलवाहिनी, जलनिःसारण वाहिनी , गॅस पाईप लाईन, टेलीफोन केबल्स, विद्युत वाहिनी, इत्यादी असल्यास सदर सोई सुविधांची दुरुस्ती व देखभालीचे काम करतांना वाटप केलेल्या

जागेवरील वृक्षारोपणाचे नुकसान झाल्यास त्यासाठी महामंडळ कोणताही मोबदला अदा करणार नाही किंबहुना महामंडळ त्यास जबाबदार राहणार नाही.

६. सदर जागेतील वृक्षारोपणासाठी महामंडळातर्फे स्वतंत्र पाणी पुरवठा जोडणी किंवा पाणी पुरवठ्याच्या दरात कोणतीही सवलत देण्यात येणार नाही.
७. महामंडळास सदर जागेची गरज भासल्यास सदर जागा विनातक्रार महामंडळास परत करणे बंधनकारक आहे. तसेच जागा परत घेताना भूखंडधारकाने वृक्षारोपणासाठी तारेचे कुंपण किंवा इतर कुठल्याही अनुषंगिक विकासासाठी केलेल्या खर्चापोटी महामंडळ त्यांस कोणताही मोबदला देणार नाही.
८. महामंडळाचे पर्यावरण विभाग औद्योगिक क्षेत्राचे स्वरूप विचारात घेऊन वृक्ष लागवडीसाठी प्रजाती बाबतचे धोरण निश्चित करील व त्यानुसार प्रजातीची लागवड करावी. जर असे धोरण जाहीर केले नसेल तर स्थानिक परिस्थिती विचारात घेऊन सुयोग्य प्रजाती लावाव्यात.
९. वरील धोरणाप्रमाणे वाटप केलेल्या जागेत लागवड केलेल्या वृक्षारोपणाबाबतची माहिती औद्योगिक क्षेत्र निहाय, लागवडीचे क्षेत्र फळासह व वृक्षप्रजातीचे संख्येसह दर तीन महिन्यांनी या कार्यालयास सादर करावी.
१०. महामंडळाद्वारे वेळोवेळी ठरविण्यात येणारे विषयासंबंधीचे नियम अटी व शर्ती आपणांस बंधनकारक राहतील
११. सदर जागेमध्ये / जागेचा कुठल्याही सार्वजनिक कार्यक्रमाकरीता वापर करता येणार नाही तसेच सदर जागेवर कोणतेही बांधकाम करण्यास परवानगी देण्यात येणार नाही.

धन्यवाद,

आपला विश्वासू,

प्रादेशिक अधिकारी,
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प्रत :-१) मा. उप मु.का.अ. यांचे माहितीस्तव सादर

२) मा. मुख्य अभियंता व उप मु.का.अ.(पर्यावरण) यांचे माहितीस्तव सादर

प्रत: कार्यकारी अभियंता, मऔविम, ठाणे-१ यांचे माहितीकरीता सस्नेह अग्रप्रेषित.

प्रत: सहाय्यक रचनाकार, मऔविम, प्रादेशिक कार्यालय ठाणे-१ यांचे माहितीकरीता.

प्रत: उप अभियंता तथा विशेष नियोजन प्राधिकरण यांचे माहितीकरीता.