

**ENVIRONMENT
STATEMENT REPORT
FOR
2021 - 2022
OF**

M/S. PASUPATI ACRYLON LIMITED
[KASHIPUR ROAD, THAKURDWARA; DISTT. : MORADABAD (U.P.)]



JUNE - 2022



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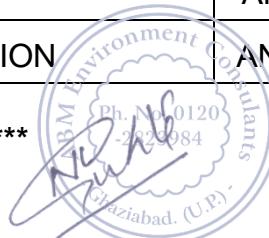
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[M/s. PASUPATI ACRYLON LTD.]

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TO WHOM IT MAY CONCERN

[M/s. PASUPATI ACRYLON LTD.]

*This is to certify that the
Environment Statement Report for the
year ending March 2022 of
M/s. PASUPATI ACRYLON LIMITED,
Kashipur Road, Thakurdwara; Distt. :
MORADABAD (U. P.) has been prepared
by us on the basis of the data
supplied by the industry.*

For ABM ENVIRONMENT CONSULTANTS

N. K. GUPTA
(N. K. GUPTA)



INTRODUCTION

[M/s. PASUPATI ACRYLON LTD.]

M/s. Pasupati Acrylon Ltd. is located at Kashipur Road, Thakurdwara; Distt. : Moradabad (U.P.).

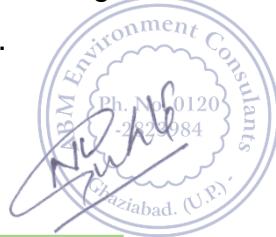
The industry is manufacturing Acrylic Fiber by using basic raw materials like; Vinyl Acetate, Acrylonitrile (ACN) and 2 – Acrylamedo - 2 Methyl Propane Sulphonic Acid (AMPS). Dimethyl Formamide (DMF) is used as Solvent and Azo-di-iso-butynonitrile (AZDN) is used as a catalyst. The installed manufacturing capacity of the industry is 45,000 MT/Annum.

The electrostatic Precipitator (ESP) has been installed for abatement of air pollution. The ESP comprises of number of dust collecting plates commonly known as collecting electrodes, placed in rows and kept in parallel in order to form a multi parallel path to pass the gas through it. The discharge electrodes are freely suspended through insulators within this path in series of a pre – calculated distance from each other and that of collection electrodes.

The collecting and discharge assemblies are housed within a mild steel casing.

In the Precipitator, a single phase high voltage D.C. is impressed on the discharge electrode assembly from a high voltage transformer rectifier unit.

The gas as entering to the precipitator comes under the influence of high static electric field set by the high potential difference of discharge and collecting electrodes. Corona generated in the system causes the solid mass in the gas to get ionized.





The ionized solids mass, due to consistent potential difference, migrates towards the collecting electrodes and adhere on it. Thus the dust particles are separated from the flue gas. The clean gas thus passes out of the precipitator and emerged to the atmosphere through the induced draft fan and 60 meters high chimney.

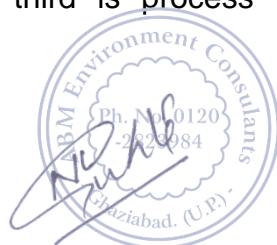
The collected dust is removed from the collecting plates by rapping them on bottom end at an interval causing the dust to dislodge and to fall into the hopper beneath the collecting field. The dust collected into the hopper is transferred to ash-silo by ash handling unit and lastly the ash is taken by the contractor for various use.

PAL has one boiler of 50 TPH capacity for generation of steam. PAL has one turbine of 8 MW capacity to cope up the power requirement. Since the installation of 8 MWTG the use of four D.G. sets (each of 1000 KVA capacity) and one D.G. set (1250 KVA) has been stopped and kept as standby.

Total water requirement in the plant is met by extraction of ground water through borewell.

A full fledged most effective and modern sophisticated Effluent Treatment Plant of 2000 KL/Day capacity for the treatment of waste water is already in the operation.

The industry is generating three types of solid waste. One is coal ash from boiler dust collection at ESP, second is ETP sludge. The ETP Sludge is handed over to M/s U.P. Waste Management Project, Kanpur U.P. under common TSDF scheme for safe disposal. The Boiler ash is given to contractor for using the same in cement industry for making cement and third is process waste which is recycled back to the process itself.

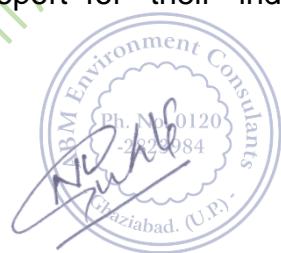




The park and thickly / dense green belt (> 33% of total plant area) has been provided along with the boundary wall of the factory having large number and different varieties of trees and plants.

The industry has employed 385 workmen to cope with the production rate. UPPCB has already granted the air consent as per letter no. 102075 / UPPCB / Moradabad (UPPCBRO) / CTO / Air / MORADABAD / 2020, Dtd. 25.01.2021 and water consent as per letter no. 102620 / UPPCB / Moradabad (UPPCBRO) / CTO / Water / MORADABAD / 2020, Dtd. 25.01.2021 for the period ending Dec. 2022 & and the authorization for Hazardous waste as per Letter no. Letter Ref. no. 13785 / UPPCB / Moradabad(UPPCBRO) / HWM / MORADABAD / 2021 Dtd. 02.03.2021, Valid upto 02.03.2026 from U.P. Pollution Control Board.

PAL has engaged **ABM ENVIRONMENT CONSULTANTS** for preparing the Environment Statement Report for their industry for the period of April 2021 - March 2022.





MANUFACTURING PROCESS

[M/s. PASUPATI ACRYLON LTD.]

Manufacturing of Acrylic fiber is divided into two stages :

1. Synthesis of polymer dope (poly acrylonitrile) from raw materials.
2. Conversion of dope to fiber by the process of wet spinning.

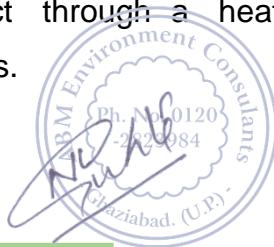
The basic raw material for the manufacture of Acrylic fiber are as follows :

1. Acrylonitrile (ACN).
2. Vinyl Acetate (VA).
3. 2-Acrylamedo-2 Methyl Propane Sulphonic Acid (AMPS).
4. Dimethyl Formamide (DMF) as a Solvent.
5. Azo-di-iso-butynitrile (AZDN) as a catalyst.

Manufacturing of Acrylic Fibre :

The first stage for manufacturing of acrylic fibre is polymer mixture preparation. The polymixture comprises of ACN, VA, AMPS and DMF. Unreacted monomer are mixed continuously with fresh ACN, VA, AMPS and DMF through digital ratio regulators and digital components controller and stored in a storage tank for continuous feeding to a series of reactors. Catalyst used for polymerization is AZDN. It is mixed with malic acid (stabilizing agent) in DMF to produce catalyst batch.

Polymerization is done in chain of reactors in series. Polymerization mixture is fed continuously to the first reactor alongwith catalyst solution, controlled by ratio regulator. Polymerization mixture feed rate is dependent on the production rate . level in the reactors and the mixtures feed rate are automatically maintained so as to give required residence time in the reactors. As the reaction is exothermic, the reaction heat is removed by circulation of the product through a heat exchanger to maintain desired temperatures in all the reactors.





The polymer (PAN) produced in the Reactor system is separated from the unconverted monomer in thin layer distillers operating in parallel.

The distiller bottom product, dope, consisting of PAN and DMF is mixed with various additives to improve colour and spinnability. This dope is sent for spinning after filtration.

Wet spinning process is adopted. Filtered dope is pumped to spinnerets by metering pumps. The spinning machine consists of four coagulation vessels with Spinneret Blocks and Tow is produced.

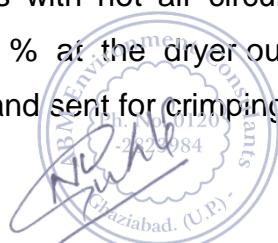
Co-agulation vessels are continuously fed with a mixture of water and DMF at a required temperature and flow rate so as to achieve desired co-agulation rate.

The fiber produced by coagulation of polymer is collected on roller unit whose speed is the "take up speed" of the spinning line.

After spinning, the tow is stretched to impart tensile properties to fiber. Stretching is done in two stages in water + DMF bath at about 98 °C. The machine is completely closed and the vapours are sucked for maintaining negative suction on line to facilitate working.

After spinning, the fiber is sent to washing machine to remove DMF from Tow. Each washing vessel is provided with squeezing foulard and two immersion rolls at the vessel inlet and outlet, respectively. Each vessel is provided with high capacity pumps for circulation. The fibre is washed with DM water fed in counter current fashion.

Washed tows are treated with finish to impart lubricating and antistatic properties. The Tows are, thereafter fed to a drum dryer for moisture removal and property development. The dryer consists of perforated drums with hot air circulation. The water content of the fibre is brought down to below 2 % at the dryer outlet. Again finish is applied to it and tow is heated in steam chest and sent for crimping. Crimping is done to increase fiber bulkiness.





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The crimped tow can either be sold as such in the market or it can further be processed as Regular fibre, HS Fibre, Tops, Dyed tow, Dyed Regular Fibre, Dyed HS Fibre, Dyed Tops etc depending upon production planning and market requirement.

The crimped tow, which is required to be sold in the market as such, is flapped and packed in HDPE bags at baling press. Packed bales marked with serial number and product type are weighed and transferred to FPS.

The crimped Tow which is required to be further processed is transferred to different machines / areas in the shop floor for conversion to Regular Fibre, HS Fibre, Dyed Fibre, Tops etc.

Regular Fibre :

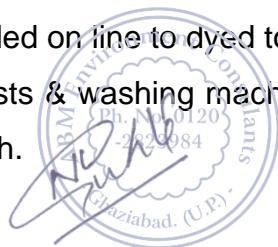
For processing crimped Tow into regular fibre, the tow is taken to cutter machine and is cut into staple lengths. The cut fiber is packed in bale form in HDPE covers at baling press.

HS Fibre :

For processing into HS fibre, the crimped Tow is passed through vaporizer to enhance elongation. This vaporized Tow is flapped, packed in HDPE covers and is transferred to thermo stretching lines called 800 area in the shop floor for further processing. To control the internal movement of vaporized tow, while packing in bale form, an internal control number is allotted. Thermo stretched Tow is taken to cutting machine and is cut into staple lengths. The cut fibre is packed in bale form in HDPE covers at baling press.

Gel Dying Process :

For manufacturing dyed Tow/Fibre equipments are provided on line to dyed tow in gel condition. It consist of perforated dye drums, steam chests & washing machine. It is installed between second stretching machine and 1st finish.





Tow To Tops :

For processing crimped tow into tops, the tow is flapped, packed in HDPE covers in bale form and is transferred to top converter (called 900 area) in the shop floor. In the 900 area, the tow is initially run on breaking machine and then on integrating machine to produce tops.

Tow Dyeing Process :

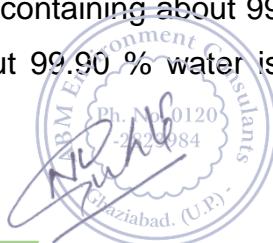
For carrying out the tow dyeing, the crimped tow is flapped , packed in HDPE covers in bale form and is transferred to dyeing lines (called 950 area) in the shop floor. In 950 area , the tow is dyed in dyeing machines and dried in dryer. The dyed tow can either be sold as such in the market or it can further be processed as regular fibre, HS fibre, tops etc. depending upon production planning and market requirement.

Waste Recovery :

The dry and wet waste fibres generated during wrapping in spinning section are brought in 1500 area (called waste recovery section) and put into dry and wet dissolving vessels, respectively. These vessels are closed from all the sides and insulated. The dry and wet waste fibre are treated with solvent Dimethyl-Formamide (DMF) at an elevated temperature and a solution of waste polymer and DMF is obtained, the solution thus obtained is filtered and used in the process.

Solvent (DMF) Recovery :

The amount of coagulation bath discharged from the spinning machine is sent for DMF recovery. In DMF recovery, DMF is concentrated to 77 % in a concentration column. The top product having about 99.95 % water is sent to the Effluent Treatment Plant. The bottom product containing about 77 % DMF is then vapourized in the evaporator and the vapours are fed to another column known (exhaustion column). Bottom product from the exhaustion column containing about 99.95 % DMF is taken out and stored in tank. Top product is about 99.90 % water is used as a reflux for both the columns.





Solvent (DMF) Vapours Scrubbing :

The vapours from spinning, prestretching and stretching machines are sucked continuously and scrubbed with demineralized water in the three stage S.S. scrubber. The recovered DMF is used in the preparation of coagulation bath.

The vapours coming from the top of the S.S. scrubber alongwith the vapours coming from washing machine, dryer and additional vapours sucked during opening of emergency doors are delivered to the MS scrubber in which raw water is circulated. The bottom product of the scrubber is purged continuously to ETP and almost pollutant-free air (DMF concentration) is discharged to atmosphere through chimney.

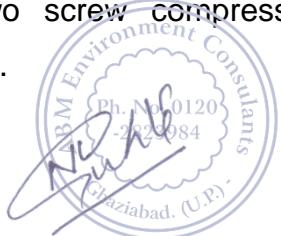
Process Utilities :

Steam :

The steam is generated for captive power plant and process with 50 TPH CFBC multi fuel fired boiler. Presently we are using Coal & Rice Husk as a fuel.

Compressed Air :

The Compressed air is required for various units as well as for instrumentation purposes. For meeting the above requirement, three double stage reciprocating type air compressors each having a capacity of 850 M³ /hour and one compressor of 1200 M³ /hour capacity have been installed. The processed air is stored at a pressure of 6.5 kg/cm² into two receivers, each having a capacity of 6 M³. Compressed air from these vessels are supplied to various user departments and also fed to the nitrogen plant for nitrogen synthesis. Also 2 nos. screw compressor of 275 CFM capacity is also available specially for boiler ash conveying system. Out of two screw compressor, one is taken in line and other one remains as standby.





Nitrogen :

Nitrogen gas is used in **PAL** for nitrogen blanketing of ACN storage tanks. For this, a nitrogen plant based on pressure swing adsorption process of 25 NM³/hour capacity has been installed. Nitrogen is separated by passing air through carbon molecular sieves and stored at a pressure of 5.5 kg/cm² into two storage tanks, each having a capacity of 10 M³. From these tanks nitrogen is supplied to the user departments as per the requirement.

Water :

Total water requirement in the plant is around 1800 KL/Day. The fresh water requirement is 1200 KL/Day which is met by Extraction of ground water through borewells and 600 KL/Day ETP treated water is used in cooling tower for make up.

Cooling Water :

Cooling Tower is installed for cooling the hot water coming from the process area.

Chilled Water :

Vapour absorption chillers are used to cool water between 8 to 10°C. This chilled water is supplied to various users in the plant.

DM Water :

DM Water plant of Thermax make having a capacity of 40m³/hour is available in the plant for use in the boilers and elsewhere.

Waste Water generation

About 600m³ per day waste water is generated from the process which is treated in ETP. The ETP treated water (600 m³/day) is reused in the process to achieve zero liquid discharge.

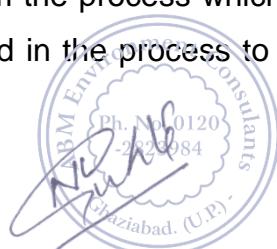


Table : 1

RAW MATERIAL CONSUMPTION

[M/s. PASUPATI ACRYLON LTD.]

| MONTH | ACN (MT) | DMF (MT) | AMPS (MT) | AZDN (MT) | VA (MT) |
|----------------|------------------|---------------|----------------|---------------|-----------------|
| APRIL – 2021 | 1337.535 | 25.034 | 14.400 | 1.960 | 131.132 |
| MAY | 846.377 | 18.812 | 15.300 | 1.680 | 81.869 |
| JUNE | 2085.961 | 39.492 | 30.600 | 3.780 | 202.347 |
| JULY | 1646.005 | 25.231 | 20.700 | 2.240 | 159.109 |
| AUGUST | 1724.505 | 34.710 | 26.100 | 2.940 | 166.324 |
| SEPTEMBER | 2293.498 | 40.589 | 33.600 | 4.200 | 221.203 |
| OCTOBER | 2938.487 | 57.044 | 40.350 | 4.620 | 283.395 |
| NOVEMBER | 1054.913 | 17.552 | 15.300 | 1.820 | 101.669 |
| DECEMBER | 3145.059 | 54.308 | 47.700 | 5.040 | 301.864 |
| JANUARY – 2022 | 2600.738 | 68.014 | 36.000 | 3.920 | 253.590 |
| FEBRUARY | 3436.327 | 45.973 | 49.500 | 6.160 | 329.520 |
| MARCH – 2022 | 3238.466 | 56.352 | 44.100 | 5.600 | 309.926 |
| TOTAL | 26347.871 | 483.11 | 373.650 | 43.960 | 2541.948 |

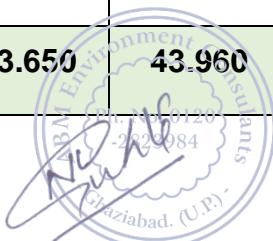


Table : 2

FUEL CONSUMPTION

[M/s. PASUPATI ACRYLON LTD.]

| CONSUMPTION PERIOD | COAL (MT) |
|------------------------------|--------------|
| APRIL - 2021 TO MARCH - 2022 | 61705 |

Note :

Diesel : D.G. Sets have been completely stopped since the installation of 8 MW turbine

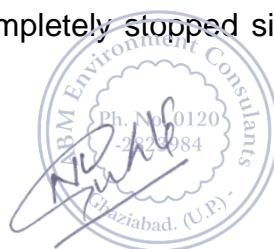


Table : 3
WATER CONSUMPTION
[M/s. PASUPATI ACRYLON LTD.]

| MONTH | DOMESTIC / MISCELLANEOUS (KL)* | BOILER (KL) | PROCESSING WHEREBY WATER GETS POLLUTED AND THE POLLUTENTS ARE EASILY BIO-DEGRADABLE (KL) |
|--------------|--------------------------------|--------------|--|
| APRIL - 2021 | 10123 | 679 | 8348 |
| MAY | 13117 | 1246 | 7896 |
| JUNE | 20521 | 2163 | 14085 |
| JULY | 15251 | 1748 | 14900 |
| AUGUST | 11121 | 2131 | 15452 |
| SEPTEMBER | 12222 | 1754 | 15250 |
| OCTOBER | 12973 | 1578 | 16577 |
| NOVEMBER | 10730 | 791 | 8228 |
| DECEMBER | 13478 | 1600 | 14814 |
| JANUARY-22 | 10650 | 1572 | 14671 |
| FEBRUARY | 11758 | 1706 | 16088 |
| MARCH | 14169 | 1054 | 18630 |
| TOTAL | 156113 | 18021 | 164939 |

* It include (16688 M³) and rest water for miscellaneous use in evaporation losses from AHU, 650 area column, 1700 area scrubbers, 700 area dryer, fighting equipment's testing and training.

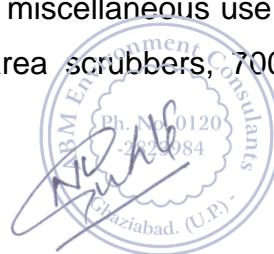


Table : 4

ETP WATER DISCHARGE

[M/s. PASUPATI ACRYLON LTD.]

| MONTH | ETP TREATED WATER OUTLET* (KL) |
|----------------|-----------------------------------|
| APRIL - 2021 | 8346 |
| MAY | 7894 |
| JUNE | 14084 |
| JULY | 14899 |
| AUGUST | 15451 |
| SEPTEMBER | 15248 |
| OCTOBER | 16576 |
| NOVEMBER | 8226 |
| DECEMBER | 14813 |
| JANUARY - 2022 | 14670 |
| FEBRUARY | 16089 |
| MARCH | 18628 |
| TOTAL | 164924 |

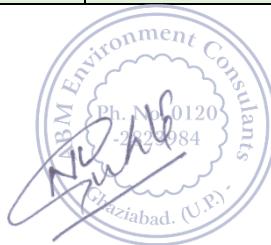


Table : 5

PRODUCTION FIGURES

[M/s. PASUPATI ACRYLON LTD.]

| PERIOD | ACRYLIC FIBRE (MT) |
|----------------|-------------------------------|
| APRIL – 2021 | 1537.983 |
| MAY | 961.277 |
| JUNE | 2327.282 |
| JULY | 1853.074 |
| AUGUST | 1949.268 |
| SEPTEMBER | 2581.117 |
| OCTOBER | 3265.168 |
| NOVEMBER | 1248.473 |
| DECEMBER | 3544.549 |
| JANUARY – 2022 | 2876.985 |
| FEBRUARY | 3902.511 |
| MARCH – 2022 | 3604.759 |
| TOTAL | 29652.447 |

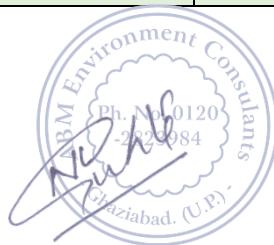
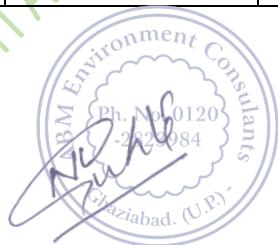


Table : 6

SOLID WASTE GENERATED

[M/s. PASUPATI ACRYLON LTD.]

| TYPE OF WASTE | UNIT | PERIOD |
|-----------------|------|--------|
| 2021 - 2022 | | |
| BOILER ASH | (MT) | 6136 |
| PROCESS RESIDUE | (MT) | 305 |
| E.T.P. SLUDGE | (MT) | 8.70 |





EXISTING EFFLUENT TREATMENT SCHEME (E.T.P.)

[M/s. PASUPATI ACRYLON LTD.]

The details of Effluent treatment process is given as under :

A. mechanical strainers :

Effluent streams from the plant is brought to the treatment plant site via gravity channel and is passed through a bar screen strainer into RCC (sump). Bar screen has been installed at a 60° angle in the channel.

B. Pumping Station :

Waste water after screening flows in a sump pit designed with hydraulic retention time based on average flow. Two submersible pumps are installed to pump the fluid to equalization tank. Automatic level controller is provided to cut pumps, on/off at designed water depths.

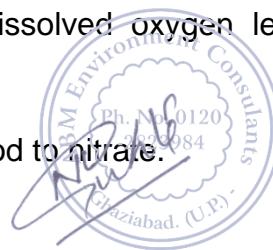
C. Homogenization Tank :

Because of possible peaks in hydraulic flows and organic concentrations a homogenization tank of adequate hydraulic retention time has been installed. Submerged coarse bubble air diffusers have been provided for mixing needs in homogenization tank. Two submersible pumps (one running and another one is stand by) have been provided to feed water in subsequent treatment system at a steady flow rate.

D. Aeration Tank :

The effluent from equalization tank enters into the aeration tank fitted with total 952 fine bubble diffusers. Air supply is maintained to this tank by air blowers (4 Nos.) each having a capacity of $1700 \text{ M}^3 / \text{Hr}$. One or two blowers remain in line as per need and two blowers are used as stand by. The dissolved oxygen level is maintained 2 PPM for survival of nitrifying bacteria.

The nitrifying bacteria converts the nitrogen part of the food to nitrate.



E. Secondary Clarifier :

The mixed liquor from the aeration tank flows by gravity to adjoining clarifier tank. The clarifier is fitted with a central drive mechanism to sweep the floor for collection of the settled sludge. The settled sludge is mostly recycled back into the aeration tank for maintaining bio mass. The clear effluent over flow the weir into a launder and flow out into a MS tank from where it is transferred into the filter feed tank of RCC. The water from filter feed tank is fed into the pressure sand filter and outlet of it is collected into the RCC tank called UF feed tank. The water from this tank is fed into the ultra filtration unit (UF) to reduce the TSS. The outlet of UF (Ultra Filtration) is collected into the RCC tank from where it is transferred to cooling tower for make-up and thus no water is discharged outside but used in cooling tower to achieve zero liquid discharge (ZLD).

F. Sludge Thickener :

The excess sludge generated in the clarifiers transferred into the sludge thickener for thickening the sludge so that sludge handling may become easy. The bottom sludge of the sludge thickener is pumped in decanter for dewatering the sludge.



The dewatering sludge is collected into a leak proof RCC pit and finally the sludge is lifted by TSDF vendor for sale disposal.

| Name of Tank | Dimensions | Capacity | Daily Flow | Retention |
|---------------------------------|--------------------------|---------------------|--------------------------|------------|
| Sumpwell | 4m dia X 6.5m depth | 81.6 M ³ | 40.83 M ³ /hr | 1.99 hrs |
| Equalisation Tank | 15m X 12.1m X 4.5m depth | 810 M ³ | 40.83 M ³ /hr | 19.83 hrs |
| UF outlet water collecting tank | 15m X 9.2m X 4.5m depth | 621 M ³ | 40.83 M ³ /hr | 15.20 hrs |
| Aeration Tank | 42m X 42m X 4.5m depth | 7938 M ³ | 40.83 M ³ /hr | 195.51 hrs |
| Clarifier Tank | 16m dia X 3.5m depth | 703 M ³ | 40.83 M ³ /hr | 17.21 hrs |
| Sludge Thickener | 8m dia X 3.5m depth | 176 M ³ | 40.83 M ³ /hr | 4.31 hrs |
| PSF feed tank | -- | 100 M ³ | 40.83 M ³ /hr | 2.44 hrs |
| UF feed tank | -- | 100 M ³ | 40.83 M ³ /hr | 2.44 hrs |

Process & Operation of ETP :

The effluent treatment which is being practiced in the plant can be divided into stages: The first one includes the physic-chemical treatments and the second one is that of the biological oxidation.

The first stages includes :

- a. Shredding of solid parts, eventually entrained and ridding.
- b. Homogenizing, leveling of effluent flow rate and neutralization.



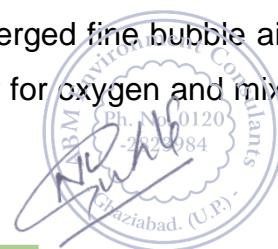
The Second stages includes :

- a) Bacterial digestion of dissolved organic – substances through activated sludge process.
- b) Clarification
- c) Tertiary treatment through pressure sand filter & ultra – filtration.
- d) Sludge thickening.
- e) Sludge dewatering by decanter.

Treatment Methodology :

The following treatment scheme has been installed and is operated.

1. Combined waste water flows through a manually cleaned Bar screen to remove any large piece of solids.
2. In view of several different streams of varying pH and strength, the mixed effluent is collected in an equalization tank. This tank equalizes the characteristics of waste water. It is provided with coarse bubble air diffusers for aeration and mixing needs. Two submersible pumps (one as stand by) has been provided to pump the waste water into subsequent treatment system on a regulated and consistent rate.
3. The effluent water pH is maintained in between 7.0 - 7.5 by adding acid or alkali per need / requirement.
4. For removal of total nitrogen and BOD reduction, the activated sludge process is followed. The clarifier under flow is recycled into the aeration tank for maintaining required mixed liquor suspended solid in aeration tank for effective working of the system.
5. Because of high BOD and TKN of the waste water, a large capacity aeration nitrification tank has been provided. The submerged fine bubble air diffusers and air piping have been provided to supply air for oxygen and mixing needs of mixed liquor suspended solid.



Air blowers have been installed for supplying air and maintaining dissolved oxygen upto 2 ppm. Mixed liquors from the aeration tank flows by gravity to the adjoining clarifier tank. Settled sludge from the clarifier tank is pumped back to the aeration tank via solids handling pumps with a provision for periodic discharge of waste excess sludge into sludge thickener tank.

The clarifier is also fitted with a scum baffle and effluent weir and skimmer return system to pump floating skimming back to the aeration tank.

6. Excess sludge from the clarifier is transferred into sludge thickener tank. Thickened sludge from this tank pumped via solids handling pumps (duty/standby) to a decanter centrifuge. Polyelectrolyte feeding is done to help sludge dewatering. The supernatant water from the decanter is discharged in the sump. The entire ETP treated water after passing through the pressure sand filter & ultra filtration is reused in cooling tower as make up.
7. For sludge storage , a RCC pit of adequate capacity has been installed to store the sludge for drying. The stored sludge is lifted by TSDF vendor for safe disposal under TSDF agreement.



Table : 7

DETAILS OF EQUIPMENTS IN E.T.P.

[M/s. PASUPATI ACRYLON LTD.]

| S. No. | ITEMS | SIZE (Mts.) |
|--------|---------------------------------|----------------------------|
| 1. | Sump Well | 4.0 Φ x 6.5 (D*) Mts. |
| 2. | Equalisation Tank | 15.0 x 12.1 x 4.5 (D) Mts |
| 3. | UF outlet water collecting Tank | 15.0 x 9.2 x 4.5 (D) Mts. |
| 4. | Aeration Tank | 42.0 x 42.0 x 4.5 (D) Mts. |
| 5. | Clarifier Tank | 16.0 Φ x 3.5 (D) Mts. |
| 6. | Sludge Thickner | 8.0 Φ x 3.5 (D) Mts. |
| 7. | Air Blower (4 Nos.) | Each of 50 H.P. |
| 8. | PSF feed Tank | 100 M ³ |
| 9. | UF feed tank | 100 M ³ |

* D ---- Depth



Table : 8

CHEMICALS CONSUMPTION IN E.T.P.

[M/s. PASUPATI ACRYLON LTD.]

| PERIOD | Phosphoric Acid (KG) | NaOH (KG) | Polyelectrolyte (KG) |
|----------------------------------|----------------------|-----------|----------------------|
| APRIL- 2021 TO MARCH -2022 | 1775 | 20400 | 85 |
| TOTAL | 1775 | 20400 | 852 |



Table : 9

ELECTRICITY CONSUMPTION IN E.T.P.
[M/s. PASUPATI ACRYLON LTD.]

| PERIOD | ELECTRICITY (KW) |
|----------------------------------|---------------------|
| APRIL- 2021 TO MARCH -2022 | 6,05,034 |
| TOTAL | 6,05,034 |



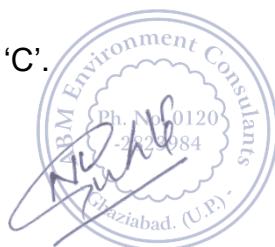
Table : 10

CHARACTERISTICS OF THE EFFLUENT

[M/s. PASUPATI ACRYLON LTD.]

| S.No. | CHARACTERISTICS | UNIT | AFTER TREATMENT | CPCB Standards. |
|-------|-----------------------|--------|-----------------|-----------------|
| 1. | pH | | 7.25 | 5.5-9.0 |
| 2. | BOD @ 27 °C | mg/lit | 16.5 | 30 max |
| 3. | COD | mg/lit | 104.0 | 250 max |
| 4. | Suspended Solids | mg/lit | 31.6 | 100 max |
| 5. | Oil & Grease | mg/lit | 3.0 | 10 max |
| 6. | Total Dissolved Solid | mg/lit | 1370 | 2100 max |

Note : Test Report is enclosed as Annexure 'C'.





AIR POLLUTION CONTROL DEVICES

[M/s. PASUPATI ACRYLON LTD.]

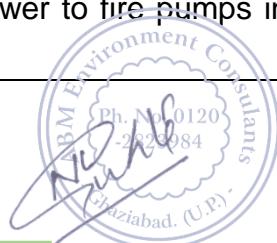
| (A) | <u>BOILER :</u> | <u>One no.</u> |
|-----|-----------------------------|-----------------------------------|
| 1. | Capacity | 50 TPH |
| 2. | Pressure | 67 Kg/cm ² |
| 3. | Boilers Type | CFBC |
| 4. | Fuel used | Coal |
| 5. | Fuel consumption | 6.0 TPH (Approx.) |
| 6. | Stack height (From G.L.) | 60 mts. from ground level |
| 7. | Dia of stack | 2500 mm |
| 8. | A. P. C. S. | Electro Static Precipitator (ESP) |

*PAL has one boiler of 50 TPH capacity for generation of steam.

| (B) | <u>D.G. SETS :</u> | <u>No. 1</u> | <u>No. 2</u> |
|-----|-----------------------------|--------------|--------------|
| 1. | Capacity (KVA) | 1000* | 1250 |
| 2. | No. of D.G. Sets | 4 | 1 |
| 3. | Fuel used | H.S.D. | H.S.D. |
| 4. | Stack Height (Mts. from GL) | 17.0 (each) | 17.0 |

*D.G. sets of 1000 KVA are totally out of use from last many years as the power requirement is being fulfilled from the turbines only.

*One D.G. set starts automatically for supplying power to fire pumps in case of total failure of TG.



| (C) | T.G. SET | No. 1 |
|------------|-----------------|----------------|
| 1. | Capacity (KVA) | 8 MW |
| 2. | No. of T.G. Set | One |
| 3. | Fuel used | Steam operated |

(D) TWO PACKED TOWER SCRUBBER FOR DMF VAPOURS RECOVERY AND TO CONTROL THE AIR POLLUTION

The Dimethyl Formamide vapours coming from spinning, prestretching and stretching machines are sucked continuously and scrubbed in the three stage SS scrubber in which DM water is circulated. The recovered DMF is used in the preparation of coagulation bath. The vapours coming from the top of the SS scrubber along with the vapours coming from washing machine and additional vapours sucked during opening of emergency doors are delivered to the MS scrubber in which raw water is circulated. The bottom product of the scrubber is Further recirculated in the system and then used in preparation of stretching batch and almost pollutant free air is discharged to atmosphere through 30 mts. high chimney.

(E) ELECTRO – STATIC PRECIPITATOR

PAL has installed one Boiler of 50 TPH capacity with a provision of Electro Static Precipitator for abatement of air pollution. The Electro Static Precipitator comprises with number of dust collecting plates commonly known as collecting electrodes, placed in rows and kept in parallel in order to form a multi parallel path to pass the gas through it. The discharge electrodes are freely suspended through insulators within this path in series of a pre – calculated distance from each other and that of collection electrodes.



The collection and discharge assemblies are housed within a mild steel casing.

In the Precipitator, a single phase high voltage DC is impressed on the discharge electrode assembly from a high voltage transformer rectifier unit.

The gas as entering to the Precipitator comes under the influence of high static electric field set up by the high potential difference of discharge and collection electrodes. Corona generated in the system causes the solid mass in the gas to get ionized. The ionized solids mass, due to consistent potential difference, migrates towards the collecting electrodes and adhere on it. Thus the dust particles are separated from the flue gas. The clean gas thus passes out of the precipitator and emerged to the atmosphere through the induced draft fan and 60 meters high chimney.

The collect dust is removed from the collecting plates by rapping them on bottom end at an interval causing the dust to dislodge and to fall into the hopper beneath the collecting field. The dust collected into the hopper is transferred into the Ash Silo by Ash handling unit and lastly the ash is taken by the contractor for various use.

(F) GREEN BELT

The green belt (> 33% of total plant area) of densely populated trees of different varieties & different heights has been provided around the boundary wall of the factory. These plants in some extents are very much useful for the control of air pollution.





(G) MONITORING OF AMBIENT AIR QUALITY

Three ambient air monitoring stations at 120 degree angles have been established in the factory premises. From these station the concentration of pollutant is monitored regularly with the help of modern sophisticated instruments for keeping the pollutants level within the standard limit prescribed by the statutory authorities.

The beautiful lawns, well developed parks and excellent land scaping with various type of flowers growing inside the factory premises allow to flow cool, gentle and fragrant air and also contributes a lot in making the environment very charming, attractive and free of pollution.

Thus PAL is a company that cares all sorts of pollution control and ecological balance not only for the healthy work environment for its employees but also for every component of the surrounding ecosystem.





FORM - V

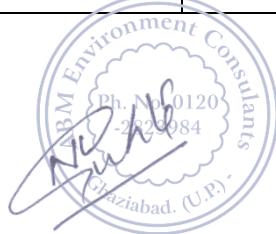
(See Rule 14)

PART - A

| | | |
|----|---|--|
| 1. | Name and address of the owner / occupier of the industry ; operation or process | Shri S. P. Gupta Director (Operations) M/s. Pasupati Acrylon Ltd., M - 14, Connaught Circus (Middle Circle), New Delhi-110001 |
| | Production installed Capacity | 45,000 MT/Annum |
| 2. | Year of establishment | 23 October 1990 |
| 3. | Month of last Environment Statement submitted | August 2021 |

PART - B

| (i) WATER CONSUMPTION : (2021 - 2022) | |
|--|------------------|
| Total Water Consumption | 339073 KL |
| Process | 164939 KL |
| Boiler Feed | 18021 KL |
| Domestic / Miscellaneous | 156113 KL |





| NAME OF PRODUCT | PROCESS WATER CONSUMPTION PER PRODUCT OUTPUT | |
|-----------------|--|---|
| | DURING PREVIOUS FINANCIAL YEAR (2020 – 2021) | DURING CURRENT FINANCIAL YEAR (2021 - 2022) |
| Acrylic Fiber | 5.471 Lits / Kg | 5.568 Lits / Kg |

Note :- The above water consumption figures are based on process water consumption only, not on the total water consumption.

| (ii) <u>RAW MATERIAL CONSUMPTION :</u> | | | |
|---|-----------------|---|--|
| NAME OF MATERIAL | NAME OF PRODUCT | CONSUMPTION OF RAW MATERIAL PER UNIT OF OUTPUT | |
| | | DURING PREVIOUS FINANCIAL YEAR (2020 – 2021) (Kg / Ton) | DURING CURRENT FINANCIAL YEAR (2021 - 2022) (Kg / Ton) |
| Acrylonitrile (ACN) | Acrylic Fibre | 888.07 | 889.46 |
| Vinyl Acetate (VA) | Acrylic Fibre | 85.54 | 85.81 |
| 2-Acrylamedo – 2 Methyl Propane Sulphonic Acid (AMPS) | Acrylic Fibre | 12.74 | 12.62 |
| Dimethyl Formamide (DMF) | Acrylic Fibre | 15.95 | 16.31 |
| Azo-di-iso-butyronitrile (AZDN) | Acrylic Fibre | 1.45 | 1.48 |



PART - C

POLLUTION DISCHARGED TO ENVIRONMENT

| POLLUTANTS | QUANTITY OF POLLUTANTS DISCHARGED | %AGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS |
|------------------|--------------------------------------|--|
| (a) WATER | | |
| B. O. D. | 2721.246 (Kg / Annum) | 45.00 % Less |
| C. O. D. | 17152.096 (Kg / Annum) | 58.40 % Less |
| T. S. S. | 5211.598 (Kg / Annum) | 68.40 % Less |
| (b) AIR * | | |
| S.P.M. | 63304.46 (Ton / Annum) | N.A. |
| NO _x | 12660.89 (Ton / Annum) | N.A. |
| SO ₂ | 228076.91 (Ton / Annum) | N.A. |

All the above values have been calculated on the basis of Table - 4 & 10.

PART - D

HAZARDOUS WASTES

(As specified under Hazardous Waste Authorisation under Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016) :

| SR . NO. | HAZARDOUS WASTES | TOTAL QUANTITY | |
|-------------|------------------|---|--|
| | | DURING PREVIOUS FINANCIAL YEAR (2020 – 2021) | DURING CURRENT FINANCIAL YEAR (2021 - 2022) |
| 1. | E.T.P. Waste | 6.520 MT | 8.700 MT |

PART - E

SOLID WASTES

| SR . NO. | SOLID WASTES | TOTAL QUANTITY | |
|----------|------------------------------------|---|--|
| | | DURING PREVIOUS FINANCIAL YEAR (2020 – 2021) | DURING CURRENT FINANCIAL YEAR (2021 - 2022) |
| 1. | Process Waste | 292.60 MT | 305.00 MT |
| 2. | E.T.P. Waste | 6.520 MT | 8.700 MT |
| 3. | Boiler Ash | 4724.00 MT | 6136.00 MT |
| 4. | Quantity Recycled or Re - utilised | 292.60 MT | 305.00 MT |

PART - F

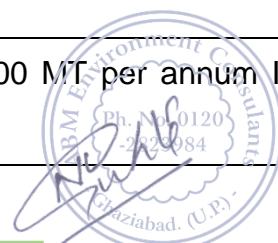
PLEASE SPECIFY THE CHARACTERISTICS (IN TERMS OF CONCENTRATION & QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

HAZARDOUS WASTE (2021 – 2022)

1. No Hazardous waste is generated from our plant except ETP sludge which is about 8.700 MT produced during the period from April 2021 to March 2022. And handed over to M/s Ramky, Kanpur, U.P. under common TSDF scheme for safe disposal as we are life time member for the same.

SOLID WASTE (2021 – 2022)

1. Boiler ash, which is approx. 6136.00 MT per annum. It is used in cement industry for making cement.
2. Residue from process, which is approx. 305.00 MT per annum. It is recycled back in the process.





PART - G

IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION

- | | |
|----|--|
| 1. | The Industry is having full fledged Effluent Treatment Plant of 2000 KL / Day capacity for process waste water. The effluent from the process is regularly monitored and accordingly controlled and getting the quality as per the norms given by U.P.P.C.B. |
| 2. | The Operational cost of E.T.P. is Rs. 55,97,662.00 approx. during the year 2021-2022. There is very good development of green belt in and around the industry . |

PART - H

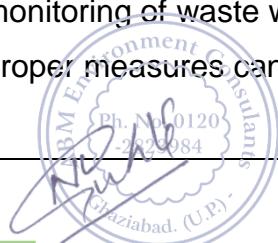
ADDITIONAL INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION AND ABATEMENT OF POLLUTION :

- | | |
|----|---|
| 1. | Industry will take all the appropriate action as and when required for the abatement of Air / Water / Soil / Noise pollution. |
|----|---|

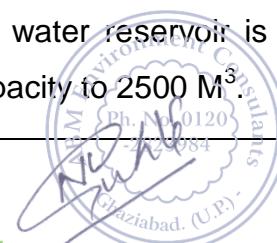
PART - I

ANY OTHER PARTICULARS IN RESPECT OF ENVIRONMENTAL PROTECTION AND ABATEMENT OF POLLUTION :

- | | |
|----|--|
| 1. | <u>MONITORING :</u> The Industry is having a sufficient fund for the monitoring of waste water and air (stack and ambient) quality regularly, so that proper measures can be taken if the quality exceeds the limit as prescribed. |
|----|--|



| | |
|----|--|
| | <p>High volume sampler, stack monitoring kit, dragger tube with pump, oxygen analyzer, explosive gas detector are being used for air pollution monitoring. Three ambient air monitoring stations at 120 degree angles have been established in the factory premises. From these stations the concentration of pollutant is monitored regularly with the help of modern sophisticated instruments for keeping the pollutants level within the standard limits prescribed by the statutory authorities.</p> <p>The beautiful lawns, well developed parks and excellent land scaping with various type of flowers growing inside the factory contributes a lot in making the environment very charming, attractive and free of pollution.</p> |
| 2. | <p><u>GREEN BELT DEVELOPMENT :</u></p> <p>80 meters wide green belt has been provided around the boundary wall of the factory. The site plan of the factory showing details of green belt is enclosed.</p> |
| 3. | <p><u>FIRE FIGHTING :</u></p> <p>The Pasupati Acrylon Ltd. (PAL) has suitable fire protection system to combat any eventuality. A well designed and maintained fire water hydrant system has been provided in the plant as per TAC norms. Water monitors have been installed in ACN / VA storage area, Polymerization and DMF recovery sections for better control on fire. Sprinkler system has been provided in polymerization building in addition to hydrants and water monitors in the area. Risers have been provided in multi storied building with hose pipe and branch nozzle. Smoke detectors in electrical substation area's i.e. 2000, 2000/1, 2000/2, 750 area (1st Floor) & FPS area.</p> <p>Two numbers of fire water tanks (Total capacity of water is approx. 850 M³) have been installed. In addition to these tanks the raw water reservoir is also interconnected with fire water tanks to enhance their capacity to 2500 M³.</p> |



In Fire Pump House One Hydrant Pump (capacity 273 M³/hr), Two numbers of Sprinkler pumps (Capacity of each 137 M³) and one Jockey pump (Capacity 11 M³ /hr.). Jockey pump maintained the hydrant as well as sprinkler line pressure from 6 to 8 kg/cm². The source of electricity supply is DG sets and 8 MW TG. No. break supply is given from DG no. 5 to pump house.

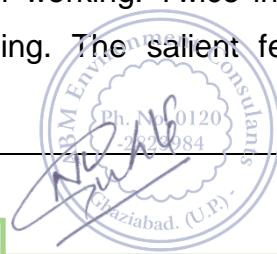
Two foam tanks of capacity 10 M³ and 5 M³ are also available. Mechanical foam (AFFF 6% conc.) is in these tanks. One foam tank is meant for ACN tanks and one for the dyke area. Trial is taken in a planned manner. 2 Nos. of lighting arresters in tank farm area, 4 nos. of lighting arresters in bag house of coal plant, Administration Block, Polymerization Building and boiler chimney have been provided to protect them from thundering and lightning.

The entire factory has been declared "**No Smoking Area**". In Polymerization and tank farm area the electrical fittings are of flame proof type.

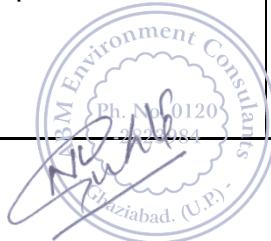
Adequate number of fire extinguishers (CO₂ gas type, Water CO₂ type, ABC, Foam, Water CO₂ type) are available and kept in different departments. Three numbers of Foam Engines (capacity of each 50 liters) are also available. There are 44 fire Bucket points having four buckets each filled with sand. The fire buckets are installed at different locations. 7 numbers of hose racks installed in different areas well equipped with the branch nozzles, triple purpose nozzle, revolving nozzles and a permaline hose pipes.

Five numbers of foam making boxes are kept in different areas. These boxes contained permaline hose pipe, foam making branch nozzle, foam and foam pick-up tube, 8 nos. of fire doors are also installed at different locations of the plant.

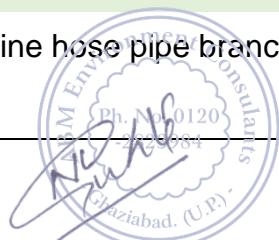
For quick and proper communication in emergency, a fire alarm system is installed which is regularly monitored for its proper working. Twice in a month, a trial is taken for checking its proper functioning. The salient features of this system are as follows :



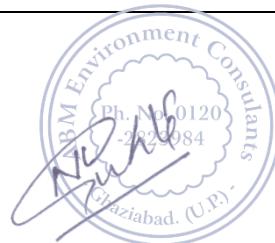
| | | | | | | | | | | |
|-----|---|---|--------------------------|---|----|----------------|---|----|--------------|---|
| | <p>The plant has been divided into two categories namely more hazardous area and less hazardous area. There are seven sections in more hazardous area and five sections in less hazardous area. Each of the above areas are provided with an emergency push button, red in color (covered with glass) and a hooter. There are four annunciation panel. Four sirens are provided in the plant.. The security barracks is having one hooter only. If the fire hooter push button is pressed from hazardous area then all four sirens with hooters will blow and if the push button is pressed from less hazardous then only hooters will blow, sirens will not blow.</p> <p>The annunciation panel indicates the area from where the emergency alarm push button is pressed and will keep on blinking till it is accepted by the Security Incharge through the master annunciator panel at the main gate. Once it is accepted, the blinking will stop but display will continue till it is reset by the Security Incharge.</p> <p>Details of the fire fighting arrangements and facilities are given below :</p> | | | | | | | | | |
| 3.1 | <p>Fire Pump House :</p> <table border="1"> <tr> <td>1.</td><td>System</td><td>Auto</td></tr> <tr> <td>2.</td><td>Line Pressure</td><td>6 kg / cm² to 8 kg / cm²</td></tr> <tr> <td>3.</td><td>Power supply</td><td>(a) Normal supply by TG (b) No Break supply by DG Set</td></tr> </table> | 1. | System | Auto | 2. | Line Pressure | 6 kg / cm ² to 8 kg / cm ² | 3. | Power supply | (a) Normal supply by TG (b) No Break supply by DG Set |
| 1. | System | Auto | | | | | | | | |
| 2. | Line Pressure | 6 kg / cm ² to 8 kg / cm ² | | | | | | | | |
| 3. | Power supply | (a) Normal supply by TG (b) No Break supply by DG Set | | | | | | | | |
| 3.2 | <p>Pumps :</p> <table border="1"> <tr> <td>a.</td><td>Main Pump (Hydrant Pump)</td><td>One (1 No.) Capacity – 273 M³/hour at 8 kg/cm², auto start, manually off.</td></tr> <tr> <td>b.</td><td>Sprinkler pump</td><td>Two (2 nos.), Each having its capacity of. 137 m³/ Hr at 8 kg / cm². Both are auto start, Manually off.</td></tr> <tr> <td>c.</td><td>Jockey pump</td><td>1 No., capacity : 11 m³ / hr. It maintain the line pressure 6 kg / cm² to 8 kg / cm². Auto start and stop.</td></tr> </table> | a. | Main Pump (Hydrant Pump) | One (1 No.) Capacity – 273 M ³ /hour at 8 kg/cm ² , auto start, manually off. | b. | Sprinkler pump | Two (2 nos.), Each having its capacity of. 137 m ³ / Hr at 8 kg / cm ² . Both are auto start, Manually off. | c. | Jockey pump | 1 No., capacity : 11 m ³ / hr. It maintain the line pressure 6 kg / cm ² to 8 kg / cm ² . Auto start and stop. |
| a. | Main Pump (Hydrant Pump) | One (1 No.) Capacity – 273 M ³ /hour at 8 kg/cm ² , auto start, manually off. | | | | | | | | |
| b. | Sprinkler pump | Two (2 nos.), Each having its capacity of. 137 m ³ / Hr at 8 kg / cm ² . Both are auto start, Manually off. | | | | | | | | |
| c. | Jockey pump | 1 No., capacity : 11 m ³ / hr. It maintain the line pressure 6 kg / cm ² to 8 kg / cm ² . Auto start and stop. | | | | | | | | |



| | | | | | | | | | | | | | | | | | | |
|-----|---|---|--|----|---------------------|---|----|--|---|----|--|----------------------|----|---|---------------------|----|--|--|
| 3.3 | Fire Water Reservoir : <table border="1" data-bbox="295 274 1468 855"> <tr> <td>a.</td><td>Number of Reservoir</td><td>2</td></tr> <tr> <td>b.</td><td>Capacity of reservoir no. 1 Capacity of reservoir no. 2</td><td>428.17 m³ 421.30 m³. (Both the fire water reservoirs are interconnected with the raw water reservoir having a capacity of 1621.38 m³).</td></tr> <tr> <td>c.</td><td>Capacity of sump connected With the fire water reservoir</td><td>49.21 m³</td></tr> <tr> <td>d.</td><td>Total volume of Water available for fire fighting</td><td>2520 m³</td></tr> <tr> <td>e.</td><td>Source of water supply to the reservoirs</td><td>3 Nos. of Borewells each having a capacity of 100 m³ / hr.</td></tr> </table> | | | a. | Number of Reservoir | 2 | b. | Capacity of reservoir no. 1 Capacity of reservoir no. 2 | 428.17 m ³ 421.30 m ³ . (Both the fire water reservoirs are interconnected with the raw water reservoir having a capacity of 1621.38 m ³). | c. | Capacity of sump connected With the fire water reservoir | 49.21 m ³ | d. | Total volume of Water available for fire fighting | 2520 m ³ | e. | Source of water supply to the reservoirs | 3 Nos. of Borewells each having a capacity of 100 m ³ / hr. |
| a. | Number of Reservoir | 2 | | | | | | | | | | | | | | | | |
| b. | Capacity of reservoir no. 1 Capacity of reservoir no. 2 | 428.17 m ³ 421.30 m ³ . (Both the fire water reservoirs are interconnected with the raw water reservoir having a capacity of 1621.38 m ³). | | | | | | | | | | | | | | | | |
| c. | Capacity of sump connected With the fire water reservoir | 49.21 m ³ | | | | | | | | | | | | | | | | |
| d. | Total volume of Water available for fire fighting | 2520 m ³ | | | | | | | | | | | | | | | | |
| e. | Source of water supply to the reservoirs | 3 Nos. of Borewells each having a capacity of 100 m ³ / hr. | | | | | | | | | | | | | | | | |
| 3.4 | Fire Hydrants : Fire hydrants cover the entire Plant. | | | | | | | | | | | | | | | | | |
| 3.5 | | | | | | | | | | | | | | | | | | |
| | a. Double headed hydrants 05 Nos. | | | | | | | | | | | | | | | | | |
| | b. Single headed hydrants 62 Nos. | | | | | | | | | | | | | | | | | |
| | c. Riser Heads 16 Nos. | | | | | | | | | | | | | | | | | |
| 3.6 | | | | | | | | | | | | | | | | | | |
| | d. Water Monitors 05 Nos. | | | | | | | | | | | | | | | | | |
| 3.5 | Sprinkler system : Total 163 sprinkler heads have been provided in polymerization area for automatic control of fire incident. The water pressure of sprinkler line is maintained by two pumps meant for taking care of sprinkler system. The sprinkler system starts working if temperature of the area reaches to 79 ⁰ C. On reaching the temperature 79 ⁰ , the sprinkler bulb gets broken and starts spraying water in the area for extinguishing the fire. The sprinkler alarm (gong) has also been installed in this section. This alarm starts blowing (if any one of the sprinkler bulb gets broken) to warn the people | | | | | | | | | | | | | | | | | |
| 3.6 | Fire Hose Rack : 7 Nos. installed at suitable location containing permaline hose pipe branch nozzles, triple purpose nozzles, revolving nozzles. | | | | | | | | | | | | | | | | | |



| | |
|------|---|
| 3.7 | Fire Hose Boxes : 47 Nos. installed with each riser heads (containing permaline hosepipe and branch nozzle) & hydrant posts (22 Nos) |
| 3.8 | Fire Bucket Stand : 48 Nos. – Each fire bucket stand contains 4 buckets filled with sand, installed at suitable locations. |
| 3.9 | Foam Compound Tank System : Provided in tank farm area. It has two way water supply i.e. from hydrant system and from borewell supply. These are two in numbers one is having a capacity of 5000 liters foam and capacity of other tank is 10,000 liters. The foam compound tank having a capacity of 5000 liters is meant for taking care of ACN tanks and other larger tank having a capacity of 10,000 liters will take care of ACN tank's dyke wall (in case ACN tank leaks and spilled ACN gets accumulated inside the dyke). Foam making compound is AFFF (6 % concentrated alcohol resistance foam). Suitably meant for extinguishing ACN fire. |
| 3.10 | Foam Makers Box : 05 Nos. foam makers have been provided in the factory premises at suitable locations. These foam makers contained a permaline hosepipe, foam solution, foam making branch nozzle and foam pick-up tube. |
| 3.11 | Foam Engine : 3 Nos. (Each having a capacity of 50 ltrs.) All the engines have been installed at the centralized location from where these can be brought to the place of fire eventuality within the shortest time. |



| | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|----------|---|----------|----|---------------------------------------|---------|----|---|---------|----|---|----|----|-------------------------------|----|----|---|----|----|---|----|
| 3.12 | Portable Fire Extinguishers : Total no. of portable fire Extinguishers installed at the various location in the factory are 287 out of which – | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">1.</td> <td>CO₂ type fire extinguishers</td> <td style="width: 10%;">117 Nos.</td> </tr> <tr> <td>2.</td> <td>ABC Cartridge type fire extinguishers</td> <td>75 Nos.</td> </tr> <tr> <td>3.</td> <td>Water - CO₂ gas type fire extinguishers</td> <td>40 Nos.</td> </tr> <tr> <td>4.</td> <td>Foam fire Extinguishers- cartridge type</td> <td>25</td> </tr> <tr> <td>5.</td> <td>Foam Engine– 50 ltrs capacity</td> <td>03</td> </tr> <tr> <td>6.</td> <td>ABC Fire Extinguishers–stored pressed type-9 kg</td> <td>25</td> </tr> <tr> <td>7.</td> <td>Clean agent fire extinguishers-stores press. type-2kg</td> <td>02</td> </tr> </table> | 1. | CO ₂ type fire extinguishers | 117 Nos. | 2. | ABC Cartridge type fire extinguishers | 75 Nos. | 3. | Water - CO ₂ gas type fire extinguishers | 40 Nos. | 4. | Foam fire Extinguishers- cartridge type | 25 | 5. | Foam Engine– 50 ltrs capacity | 03 | 6. | ABC Fire Extinguishers–stored pressed type-9 kg | 25 | 7. | Clean agent fire extinguishers-stores press. type-2kg | 02 |
| 1. | CO ₂ type fire extinguishers | 117 Nos. | | | | | | | | | | | | | | | | | | | | |
| 2. | ABC Cartridge type fire extinguishers | 75 Nos. | | | | | | | | | | | | | | | | | | | | |
| 3. | Water - CO ₂ gas type fire extinguishers | 40 Nos. | | | | | | | | | | | | | | | | | | | | |
| 4. | Foam fire Extinguishers- cartridge type | 25 | | | | | | | | | | | | | | | | | | | | |
| 5. | Foam Engine– 50 ltrs capacity | 03 | | | | | | | | | | | | | | | | | | | | |
| 6. | ABC Fire Extinguishers–stored pressed type-9 kg | 25 | | | | | | | | | | | | | | | | | | | | |
| 7. | Clean agent fire extinguishers-stores press. type-2kg | 02 | | | | | | | | | | | | | | | | | | | | |
| 3.13 | Fire Hooters : 19 Nos. (17 Nos. are hooters, One number bell type, one number is revolving light) | | | | | | | | | | | | | | | | | | | | | |
| 3.14 | Fire Sirens : 4 Nos. Installed at suitable locations in Plant. | | | | | | | | | | | | | | | | | | | | | |
| 3.15 | Annunciators : 4 Nos. Installed at suitable location in Plant Main Gate Annunciator works as master annunciator panel. | | | | | | | | | | | | | | | | | | | | | |
| 3.16 | Emergency Phone number : 222 | | | | | | | | | | | | | | | | | | | | | |
| 3.17 | Fire Door : 8 Nos.- Four Nos. are installed between FPS and fibre line zone and Four Nos. are installed between fibre line and dope filtration zone. It works when the surrounding area temperature rises upto 79 ⁰ C. In this case, the fragile bulb gets broken and counter weight of the door starts coming down and allowing the door to move forward for closing the gate. Thus, This door isolate the non-fire affected are from fire affected area. | | | | | | | | | | | | | | | | | | | | | |



MEANS OF ESCAPE :

Means of escape in our plant is adequate and more care has been taken on this aspect considering the following points :-

| | |
|-----|--|
| I | They are conveniently situated. |
| ii | Access to them is properly maintained and unobstructed. |
| iii | They are sufficiently wide for greatest number of persons ever likely to use them. |
| iv | The direction of exit is towards a normally used and familiar approach to the building or area and is adequately marked. The exit lead to a safe area. |

LIST OF FIRE FIGHTING EQUIPMENTS :

| Sr. No. | Name of Fire Equipments | Nos. |
|---------|---|---|
| 1. | Hydrants | 87 |
| 2. | Water Monitors | 06 |
| 3. | <ul style="list-style-type: none"> - CO₂ type fire extinguishers - ABC Cartridge type fire extinguishers - Water - CO₂ gas type fire extinguishers - Foam fire Extinguishers- cartridge type - Foam Engine– 50 ltrs capacity - ABC Fire Extinguishers–stored pressed type-9 kg - Clean agent fire extinguishers-stores press. type-2kg | <ul style="list-style-type: none"> 117 75 40 25 03 25 02 |
| 4. | Fire Bucket Points (each having 4 Nos. of Buckets). | 40 |
| 5. | <ul style="list-style-type: none"> Fire pump House - Hydrant Pump - Sprinkler Pump - Jockey Pump | <ul style="list-style-type: none"> 01 02 01 |

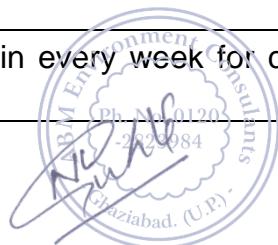




| | | |
|-----|---|-----|
| 6. | Sprinkler Alarm | 02 |
| 7. | Fire Alarm Sirens | 04 |
| 8. | Fire Hooters | 17 |
| 9. | Hose Rack | 07 |
| 10. | Foam Making Boxes | 05 |
| 11. | Permaline Hose Pipes | 90 |
| 12. | Standard Branch Nozzles | 36 |
| 13. | Foam Making Nozzles | 05 |
| 14. | Revoling Nozzles | 01 |
| 15. | Triple Purpose Nozzle | 30 |
| 16. | Annunciator | 04 |
| 17. | Fire entry suit with complete set | 02 |
| 18. | Fire Blankets | 02 |
| 19. | Fire doors | 08 |
| 20. | Hose Boxes (provided with each riser head & near Hydrant posts) | 47 |
| 21. | Bell Type Hooter | 01 |
| 22. | Smoke Detector | 150 |
| 23. | Revolving light | 01 |
| 24. | Hose Reel | 02 |

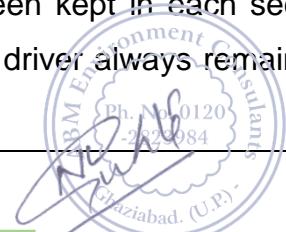
MAINTENANCE SCHEDULE OF FIRE FIGHTING SYSTEM :

| | |
|----|--|
| 1. | Monthly testing of sprinkler system |
| 2. | The hydrant pump is started for 10 minutes in every week for checking its proper working |



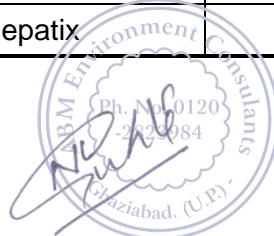
| | |
|-----|---|
| 3. | Fire alarm testing is done twice in a month. |
| 4. | Weekly (Tuesday) schedule for fire extinguisher cleaning |
| 5. | Yearly schedule of fire extinguisher refilling & checking & weighing of cartridge. If weight loss is found to be 10% then cartridge is changed. |
| 6. | Schedule for hydro testing of fire extinguisher once in every two years. |
| 7. | Weighing of all CO2 fire extinguishers is carried out once in every six months. If weight loss is observed to be 10% then extinguisher is replaced. |
| 8. | Pressure testing & maintenance of all fire hose pipes is done once in every six months. |
| 9. | Weekly schedule (Sunday) of fire equipment cleaning & oiling. |
| 10. | Monthly schedule for changing of water of water – Co2 fire extinguisher. |
| 11. | Monthly testing of smoke detectors. |
| 12. | Daily routine checking of all fire fighting equipments installed in the premises of the factory. |
| 13. | Schedule has been made for cleaning & polishing of fire hydrant landing valve once in every 6 months. |
| 14. | Daily checking of the level of fire water reservoir. |

| 4 | MEDICAL FACILITY |
|---|---|
| | <p>Our first Aid Center (Dispensary) is located near Time office of the factory. One dispensary named “Pasupati Clinic” is located at town Thakurdwara, 3 Km away from the factory site. Free treatment and medical advice is given to the people by the factory Doctor. One doctor having M.B.B.S. qualification and 4 nos. experienced Compounders are working in the above dispensary.</p> <p>All the facilities required for First Aid are available in our factory. First Aid boxes containing essential medicines have been kept in each section of the plant. Inspite of that an Ambulance van and a driver always remain available in each shift for emergency purpose.</p> |



The details of medicines and equipments available in our Dispensary are given below :

| | | |
|---------------------|-------------------------|----------------------|
| Tab. Avomine | Tab. Enteroguinol | Inj. Larik |
| Tab. Avil | Tab. Metrogy 1 | Inj. Ceraminc |
| Tab. Aciloc (150mg) | Tab. Vitamin C | Inj. Strophchromic |
| Tab. Actifid | Tab. Incidal | Inj. Perinorm |
| Tab. B. Complex | Tab. Slamital | Inj. Xylocum 4 % |
| Tab. Anafontal | Tab. Belacord | Inj. Alropine |
| Tab. Sodimint | Tab. Lomofen | Inj. MVI |
| Tab. Salvin | Tab. Larix | Oint. Sumeg |
| Tab. Trigan | Tab. Gelusil MPS | Oint. Soframycin |
| Tab. Stilabia | Tab. Deriphyllin retard | Oint. Burnol |
| Tab. Calampose | Tab. Relcidin forte | Oint. Iodex |
| Tab. Paracetamol | Tab. Disprin | Oint. Medicream |
| Tab. Phenargan | Cap. Becasule | Band Aid |
| Tab. Perinorm | Cap. Calispas | Electral powder |
| Tab. Digene | Cap. Doxy | Glucon-D |
| Tab. Domestal | Cap. Bestozyme | Aidex Spray |
| Tab. Diclolol | Cap. Provenspas | Betadin lotion |
| Tab. Dependal- M | Inj. Dexa | Priton cough syp |
| Tab. Kitanov | Inj. Avil | I Tone eye drop |
| Tab. Voveran- SR | Inj. T.T. | Albucid eye drop |
| Tab. Tapcid | Inj. Katonov | Dexcin eye drop |
| Tab. Orprimds | Inj. Anafortan | Sofracent eye drop |
| Tab. Unezymic | Inj. Phenargan | Lucoplast |
| Tab. Liv. 52 | Inj. Aciloc | Antidote kit for ACN |
| Tab. Larigo | Inj. Gentamycin | |
| Tab. Dexa | Inj. Neohepatix | |





| | |
|--|---|
| | <p>The dispensary is equipped with the following equipment :</p> <ol style="list-style-type: none">1. Sterilized drum (Cotton Bandage)2. Suction Apparatus3. Autoclave4. Oxygen Cylinder5. Sterilizer6. BP Instrument7. Ambulance Van with 24 Hr. Service |
| | <p>The site is very well connected by road with Kashipur 10 KM and Moradabad 50 Km. Hospitals equipped with ultra modern facilities are available in these towns.</p> |



CONCLUSION

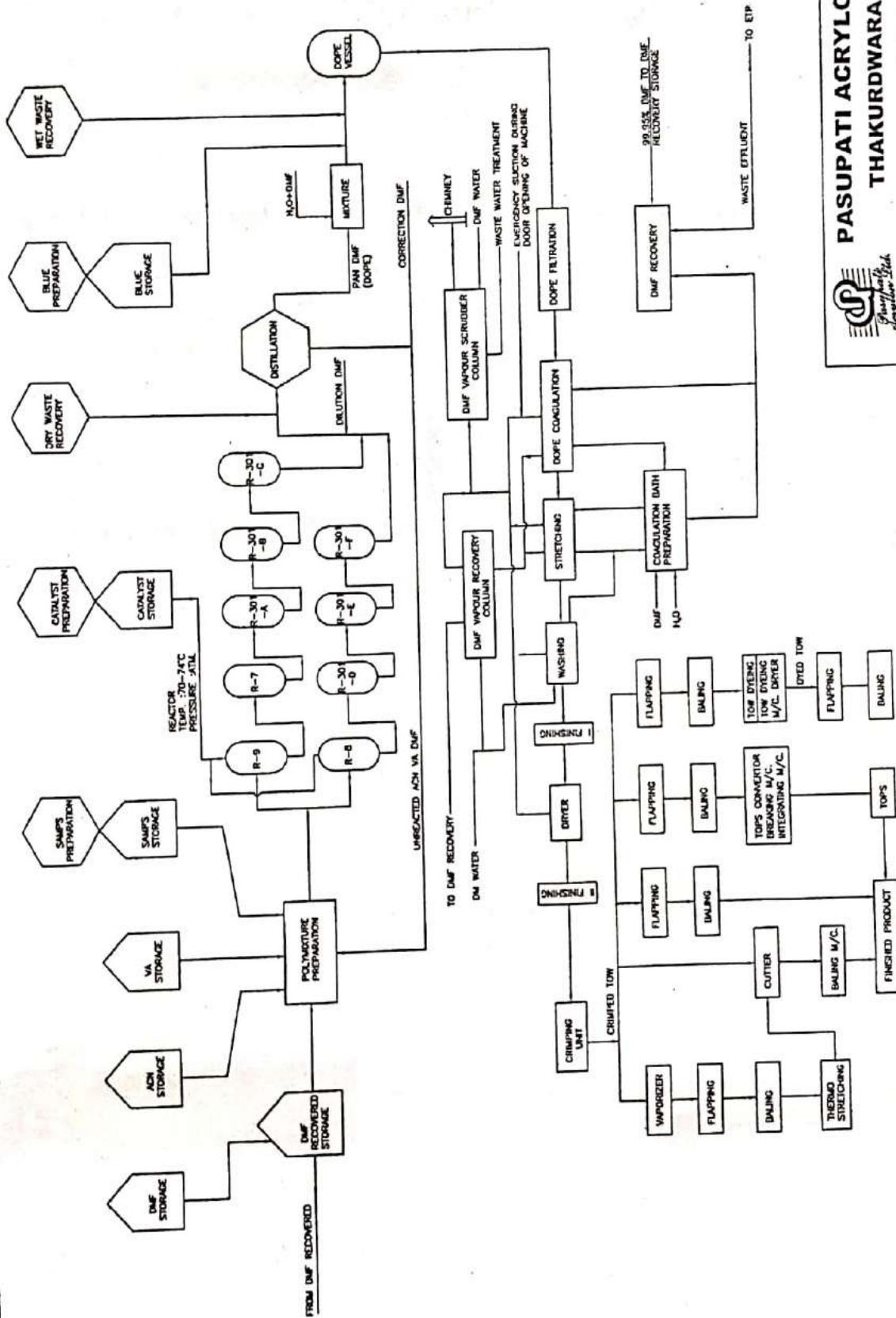
&

RECOMMENDATIONS

[M/s. PASUPATI ACRYLON LTD.]

1. The concentration of pollutants discharged into the environment is reasonable and well within the range.
2. PAL is conscious of its responsibility for environmental management, then it is necessary to have a fresh monitoring for flue gas from the stacks and ETP outlet water from outside reputed laboratory, to check the in house monitoring & testing at least once in a year, it will also be able to check the calibration of in house monitoring equipments.
3. PAL company is a ZLD unit. The ETP treated water is recycled and reused in cooling tower.





PASUPATI ACRYLON LIMITED

S

TITLE FLOW DIAGRAM FOR MANUFACTURE OF ACRYLIC

| TITLE FLOW DIAGRAM FOR MANUFACTURE OF ACRYLIC FIBRE (ACRYLON) | | | | | | |
|---|-----|------|-------------|------|------|-----------------|
| NOTES | 5 | 6 | 7 | 8 | 9 | 10 |
| 1. ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE SPECIFIED. | 5 | 4 | 3 | 2 | 1 | 0 |
| 2. THIS DRAWING & DESIGN IS THE PROPERTY OF PASUPATI ACRYLON LTD. AND MUST NOT BE COPIED OR LENT WITHOUT THEIR PERMISSION IN WRITING. | RFV | DATE | DESCRIPTION | DRN. | CHD. | APPD. BY |
| | | | | | | M.SANSARI |
| | | | | | | F.A.KHAN |
| | | | | | | CHD |
| | | | | | | SKETCH |
| | | | | | | DRAFFNT |
| | | | | | | DRAWN |
| | | | | | | DATE |
| | | | | | | 21.5.18 |
| | | | | | | POS. NO./AREA - |
| | | | | | | POLY |
| | | | | | | DRAWING NO. |
| | | | | | | REV. |
| | | | | | | MISC-011/A3 |
| | | | | | | 0 |

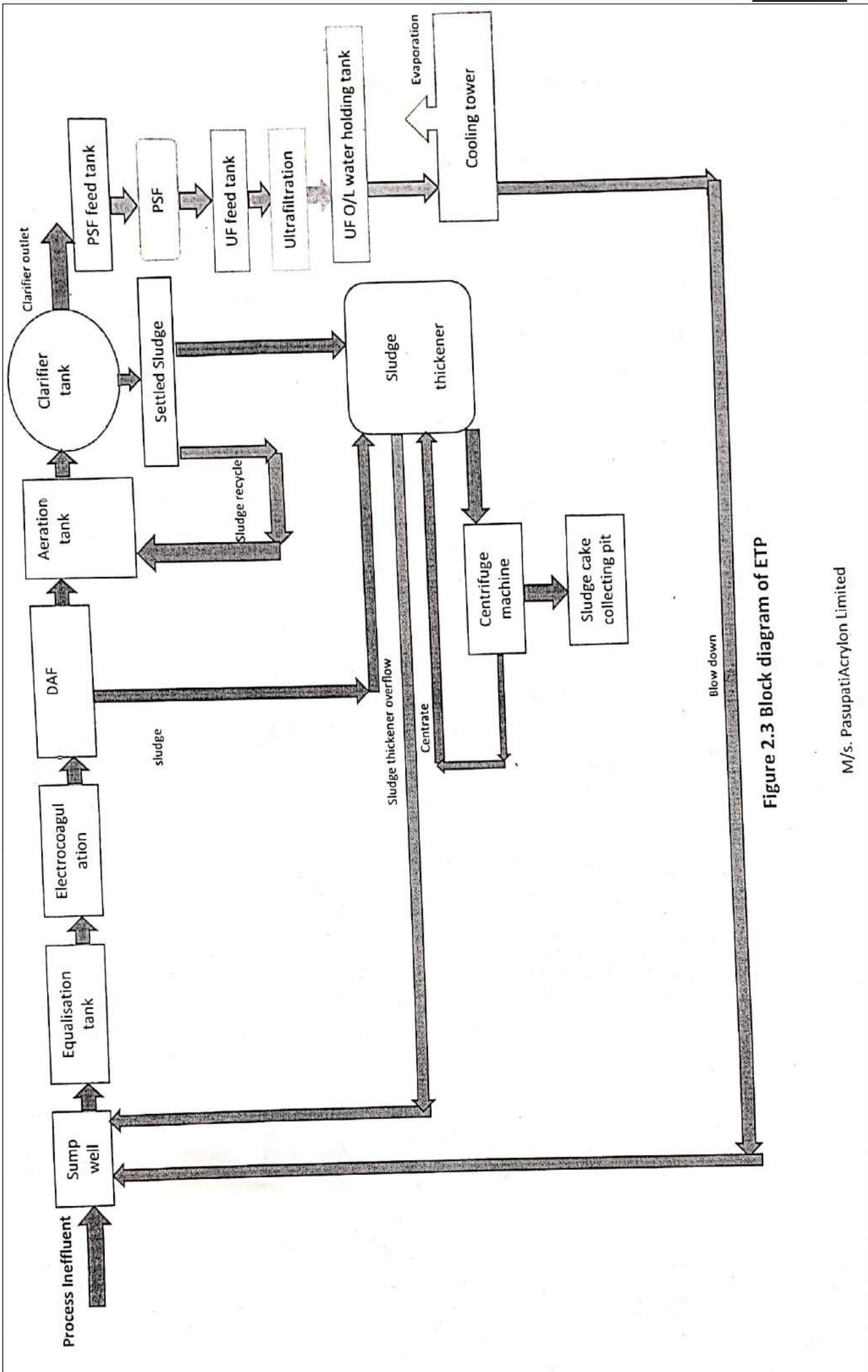


Figure 2.3 Block diagram of ETP



ETS-LAB

ENVIRO-TECH SERVICES

An Analytical Laboratory



An Environment, Food, Soil & Biological Analytical Laboratory
 (An ISO 9001:2015, 14001:2015 and 45001-2018 Certified Company)
 Recognised by MoEF (Govt. of India), Accredited by ISO/IEC-17025:2017 (NABL) & UPPCB
 Plot No. 1/32, South Side G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001
 email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063

TC-8771

ANNEXURE : 'C'



TEST REPORT

TEST REPORT NO.: ETS/1128-24/03/2022 URLNO.TC877121000112824F DATE OF REPORT: 21.03.2022

WASTE WATER SAMPLE ANALYSIS REPORT

Name And Address of Customer : M/S, PASUPATI ACRYLON LIMITED
 THAKURDWARA, DISTRICT- MORADABAD.

Date of Sampling : 15.03.2022
 Analysis Start Date : 17.03.2022
 Analysis End Date : 21.03.2022
 Sample ID No : 1128-24
 Sampling Done By : ETS STAFF
 Sampling Description : AFTER TREATMENT
 Sampling Location : E.T.P.- OUTLET
 Sampling Method : ETS/STP/WATER-02
 Sample Quantity : 2.0 Ltr.
 Packing Condition : SEALED
 Packed In : P.V.C. CANE

| S. No. | Test Parameter | Unit | Result | Specification/Limit (As per CPCB) | | Test Method |
|--------|--|-------|--------|--------------------------------------|---------------|--------------------|
| | | | | Inland Surface Water | Public Sewers | |
| 1 | pH | ... | 7.25 | 5.5 - 9.0 | 5.5 - 9.0 | APHA 4500-H+ |
| 2 | Conductivity | µs/cm | 2068.0 | Not Specified | Not Specified | APHA 2510-B |
| 3 | Colour | Hazen | <10.0 | ... | ... | APHA 2120-B |
| 4 | Total Dissolved Solids,(TDS) | mg/L | 1370.0 | Not Specified | Not Specified | APHA 2540-C |
| 5 | Total Suspended Solids,(TSS) | mg/L | 31.6 | 100 | 600 | APHA 2540-D |
| 6 | Chemical Oxygen Demand,(COD) | mg/L | 104.0 | 250 | Not Specified | APHA 5220-C |
| 7 | Biological Oxygen Demand(BOD _{3d} 27°C) | mg/L | 16.5 | 30 | 350 | IS: 3025 (Part-44) |
| 8 | Oil & Grease, (O & G) | mg/L | 3.0 | 10 | 20 | APHA 5520-D |

*****End of Test Report*****

CHECKED BY
PUSHKAR MITTAL



Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

Page 1 of 1

For Enviro-Tech Services

 Md Humraj
 Quality Manager
 AUTHORIZED SIGNATORY

Note:-

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
2. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
3. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
4. The results indicated only refer to the tested samples and listed applicable parameters.
5. No complaint will be entertained if received after 7 days of issue of test report.
6. Our liability is limited to invoice value only.

40

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ETS-LAB

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Plot No. 1/32, South Side G.T. Road Industrial Area, Ghaziabad (U.P.) - 201001

email : etslab2012@gmail.com | Website : www.etslab.in | Ph.: 9911516076, 9811736063



TC-8771



ANNEXURE : 'D'

TEST REPORT

TEST REPORT NO.: ETS/1128-23/03/2022 URLNO.TC877121000112823F DATE OF REPORT: 21.03.2022

STACK EMISSION MONITORING AND ANALYSIS REPORT

Name And Address of Customer : M/S, PASUPATI ACRYLON LIMITED
 THAKURDWARA, DISTRICT- MORADABAD

Date Of Sampling : 15.03.2022
 Analysis Start Date : 17.03.2022
 Analysis End Date : 19.03.2022
 Duration Of Sampling : 30 MIN
 Sample ID No. : 1128-23
 Sampling Done By : ETS STAFF
 Sampling Method : ETS/STP/ STACK-01
 Stack Attached To : BOILER
 Capacity Of Stack : 50.0 TPH
 Quantity Of Fuel Used : 200.0 TPD
 Type Of Fuel Used : COAL
 Stack Height Above Ground : 60.0 MTR.
 Stack Dia At The Top : 3060.0 MM
 Material Of Construction : R.C.C.
 Attached APICS : ESP
 Normal Operating Schedule : NORMAL
 Ambient Temperature : 26.0 °C
 Flue Gas Temperature : 142.0 °C
 Velocity Of Flue Gases : 8.9 MTR./SEC.
 Quantity Of Emission Discharged : 235507.64 (m³/hr)

| S. No. | Test Parameter | Unit | Result | Specification/Limit (As per CPCB) | Test Method |
|--------|---|--------------------|--------|-----------------------------------|-------------------|
| 1 | Particulate Matters,(PM) | mg/Nm ³ | 35.0 | 150 | IS-11255 (Part-1) |
| 2 | Sulphur Dioxide,(SO ₂) | mg/Nm ³ | 126.1 | 600 | IS-11255 (Part-2) |
| 3 | Oxide of Nitrogen,(NOX as NO ₂) | mg/Nm ³ | 7.0 | 300 | IS-11255 (Part-7) |
| 4 | Carbon Monoxide,(CO) | %v/v | 0.52 | 1 | IS: 13270 |

*****End of Test Report*****



Page 1 of 1

Format No ETS/LAB/TR-05, Issue No. 05, Date 01.04.2019, Amd. No. 04 Date 01.04.2019

For Enviro-Tech Services

 Md Humraj
 Quality Manager
AUTHORIZED SIGNATORY

Note:-

1. Test reports without ETS LAB HOLOGRAM are not issued by our laboratory.
2. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
3. The sample shall be destroyed after 15 days & Biological / Perishable sample shall be destroyed immediately after issue of test report.
4. The results indicated only refer to the tested samples and listed applicable parameters.
5. No complaint will be entertained if received after 7 days of issue of test report.
6. Our liability is limited to invoice value only.



UTTAR PRADESH POLLUTION CONTROL BOARD
Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010
Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.com, Website: www.uppcb.com

CONSENT ORDER

Ref No. -
102075/UPPCB/Moradabad(UPPCBRO)/CTO/air/MORADABAD/2020

Dated : 25/01/2021

To ,

Shri SATYA PRAKASH GUPTA
M/s PASUPATI ACRYLON LTD
Kashipur Road, Thakurdwara, Distt-Moradabad, Uttar Pradesh,MORADABAD,244601
MORADABAD

Sub : **Consent under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended) to M/s. PASUPATI ACRYLON LTD**

Reference Application No. 9357592

Dated : 25/01/2021

- With reference to the application for consent for emission of air pollutants from the plant of M/s PASUPATI ACRYLON LTD. under Air Act 1981. It is being authorised for said emissions, as per the standards, in environment, by the Board as per enclosed conditions .
- This consent is valid for the period from 01/01/2021 to 31/12/2022 .
- Inspite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 21 (6) of the Air (Previntion and Controt of Pollution) Act, 1981 as amended.

This consent is being issued with the permission of competent authority .

Amit
Chandra
For and on behalf of U.P. Pollution Control Board

Chief Environment Officer

Enclosed : As above
(condition of consent):

Copy to: Regional Officer Moradabad to ensure the compliance of the conditions imposed in the consent order.

Amit
Chandra
Chief Environment Officer

Digital Signature by Amit Chandra
 DN: C=IN, O=U.P. Pollution Control Board, OU=Environment
 Common Name: amit@uppcb.org.in
 Private Key ID: 00000000000000000000000000000000
 Public Key ID: 00000000000000000000000000000000
 Serial Number: 00000000000000000000000000000000
 Issued To: amit@uppcb.org.in
 Location: your signing location here
 Location: your signing location here
 File Reader Version: 10.0.0

U.P. Pollution Control Board

Dated : 25/01/2021

CONDITIONS OF CONSENT

1. This consent is valid only for the approved production capacity of Acrylic Fiber-3750 ton per month.
2. This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/ process /fuel/ plant machinery failing which consent would be deemed void.
- 3(a) The maximum rate of emission of flue gas should not be more than the emission norms for the stacks.
- 3(b) Air Pollution Source Details.

| Air Pollution Source Details | | | | | |
|-------------------------------------|---|-------------------------|------------------|--------------------|---|
| S.No | Air Polution Source | Type of Fuel | Stack No. | Parameters | Height |
| 1 | Boiler 50 TPH | Rice Husk /Coal-200 TPD | 01 | Particulate Matter | Electrostatic Precipitator and stack height of 60 meter from ground level |
| 2 | DG sets 1000 KVA, 1000 KVA, 1000 KVA, 1000 KVA and 1250 KVA | Diesel | 02 | Particulate Matter | 7 meter stack height above from ground level in each DG sets |

- 3(c) The emissions by various stacks into the environment should be as per the norms of the Board .

| Emission Quality Details Detail | | | |
|--|-----------------|--------------------|-----------------------|
| S.No | Stack No | Parameter | Standard |
| 1 | 01 | Particulate Matter | 150mg/NN3 |
| 2 | 02 | Particulate Matter | As per E(P)Rules 1986 |

4. Quantity of other pollutants should also be as per the norms prescribed by the Board/MOEF & CC/or otherwise mandatory .
5. The equipment for air pollution control system and monitoring ,as proposed by the industry and approved by the Board should be installed in their premises itself .
6. The modification or installation in the existing pollution control equipments should be done only by prior approval of Board .
7. The operation of air pollution control system and maintenance be done in such a way that the quantity of pollutants should be in accordance with the standards prescribed by the Board/MoEF & CC/or otherwise mandatory .
8. Unit should do provisions for fugitive emissions chimney/stack as per the norms of the Board/MOEF & CC/or otherwise mandatory .
9. The unit should submit the stack emissions monitoring report within one month from issuance of consent order along with the point wise compliance report of the consent order . Further quarterly monitoring report should be submitted .

The Unit will file the renewal application at least 2 months prior to the expiry of this Order.
Specific Conditions:

1. This Consent to Operate Air is valid for production Acrylic Fiber-3750 ton per month.
 2. Unit shall ensure proper operation and maintenance of Air Pollution Control Systems installed in the boiler of 50 TPH, i.e., Electrostatic Precipitator and stack height of 60 meter from ground level.
 3. Unit shall ensure that the ambient air quality shall not be adversely effected by the operation of the unit.
 4. Unit shall install online emission monitoring system at the stack of boiler of 50 TPH and ensure the connectivity with the server of UPPCB and CPCB.
 5. Unit shall use Bio-briquette as co-fuel with main fuel in the ratio of minimum 20 percent in boiler subject to its availability.
 6. Unit shall submit the ambient air monitoring report of the premises and stack monitoring report of the air pollution sources from laboratory authorized from MOEF & CC.
 7. The overall noise levels in and around area 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 level shall confirm to the standards under the Environment (Protection) Act 1986.
 8. Unit shall submit the ambient noise monitoring report of the premises and noise monitoring report of the sources such as boiler, DG set etc. Done by laboratory authorized from MOEF & CC in every 3 months.
 9. Unit shall develop Green Belt in minimum 33 percent area of Industrial Premises as per the provisions laid down in office order no. H16405/220/2018/02 dated 16-02-2018 of U.P. Pollution Control Board. The copy of said office order is available on the website of U.P. Pollution Control Board www.uppcb.com.
 10. Fly ash shall be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy seasons by flowing along with storm water . Direct exposure of workers to fly ash & dust shall be avoided.
 11. Unit shall comply the provisions of Air (Prevention and Control of Pollution) Act 1981 as Amended and Environment (Protection) Act 1986, and direction issued by Hon'ble National Green Tribunal, New Delhi in Order dated 13.07.2017 in OA no. 200/2014, M.C. Mehta v/s Union of India.
 12. This Consent order shall automatically become invalid on issuance of Closure Order by C.P.C.B / UPPCB and further on Revoking of Closure order, the Consent order shall become valid. The above comments are for your kind perusal and further necessary action.

Issued with the permission of competent authority .

Amit
Chandra

Digitalily signed by Amit Chandra
DL: C-In, C-Open Platform Control Board,
OU-Environment, PostalCode>226010, S-Uttar Pradesh,
Phone:<01262212802>02126212513d9623e94bd65f7
>0809012128163a935a9695,
SERIALNUMBER>3z759f82be66c249aeca0fbfa36c62c
>4c2617883030ed>74ccce0763ba3c, CN=>Amit
Chandra
Reason: I am the author of this document
Location: your signing location here
Date: 2021-01-25 11:32:45

For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer



UTTAR PRADESH POLLUTION CONTROL BOARD
Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010
Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.com, Website: www.uppcb.com

CONSENT ORDER

**Ref No. -
102620/UPPCB/Moradabad(UPPCBRO)/CTO/wa
ter/MORADABAD/2020**

Dated : 25/01/2021

To ,

Shri SATYA PRAKASH GUPTA
M/s PASUPATI ACRYLON LTD
Kashipur Road, Thakurdwara, Distt-Moradabad, Uttar Pradesh,MORADABAD,244601
MORADABAD

**Sub : Consent under Section 25/26 of The Water (Prevention and control of Pollution) Act, 1974
(as amended) for discharge of effluent to M/s. PASUPATI ACRYLON LTD**

Reference Application No :9408296

Dated :25/01/2021

1. For disposal of effluent into water body or drain or land under The Water (Prevention and control of Pollution) Act,1974 as amended (here in after referred as the act) M/s. PASUPATI ACRYLON LTD is hereby authorized by the board for discharge of their industrial effluent generated through ETP for irrigation/river through drain and disposal of domestic effluent through septic tant/soak pit subject to general and special conditions mentioned in the annexure ,in refrence to their foressaid application .
2. This consent is valid for the period from 01/01/2021 to 31/12/2022 .
3. In spite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 27(2) of the Water (Previntion and Controt of Pollution) Act, 1974 as amended .

This consent is being issued with the permission of competent authority .

**Amit
Chandra**
For and on behalf of U.P. Pollution Control Board

Chief Environment Officer

**Enclosed : As above
(condition of consent):**

Copy to: Regional Officer Moradabad to ensure the compliance of the conditions imposed in the consent order.

**Amit
Chandra**
Chief Environment Officer

Digitally signed by Amit Chandra
DN: CN=U.P. Pollution Control Board, OU=Environment, PostaCode=226010, S=Uttar Pradesh,
Phone=+912224220202, Email=amit@uppcb.gov.in, L=New Delhi, O=U.P. Pollution Control Board
Subject=Digital Signature
Signature Date: 2021-01-25T10:40:57Z
Location: your signing location here
File Reader Version: 10.0.0

Digitally signed by Amit Chandra
DN: CN=U.P. Pollution Control Board, OU=Environment, PostaCode=226010, S=Uttar Pradesh,
Phone=+912224220202, Email=amit@uppcb.gov.in, L=New Delhi, O=U.P. Pollution Control Board
Subject=Digital Signature
Signature Date: 2021-01-25T10:40:57Z
Location: your signing location here
File Reader Version: 10.0.0

U.P. POLLUTION CONTROL BOARD, LUCKNOW

Annexure to Consent issued to M/s.PASUPATI ACRYLON LTD vide

Consent Order No. 9408296/ Water

Dated : 25/01/2021

CONDITIONS OF CONSENT

1. This consent is valid only for the approved production capacity of Acrelic Fiber-3750 ton per month.
2. The quantity of maximum daily effluent discharge should not be more than the following :

| Effluent Discharge Details | | | |
|-----------------------------------|-------------------------|---------------------------------------|---|
| S.No | Kind of Effulant | Maximum daily discharge,KL/day | Treatment facility and discharge point |
| 1 | Domestic | 30 KLD | ETP |
| 2 | Industrial | 980 KLD | ETP |

3. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. The treated domestic and industrial effluent if discharged outside the premises, if meets at the end of final discharge point, arrangement should be made for measurement of effluent and for collecting its sample. Except the effluent informed in the application for consent no other effluent should enter in the said arrangements for collection of effluent. It should also be ensured that domestic effluent should not be discharged in storm water drain .
- 4(a) The domestic effluent should be treated in treatment plant so that the should be in conformity with the following norms dated treated effluent .

| Domestic Effulant | | |
|--------------------------|------------------------|--|
| S.No | Parameter | Standard |
| 1 | Total Suspended Solids | 100mg/l |
| 2 | BOD | 30mg/l |
| 3 | COD | 250mg/l |
| 4 | Oil & Grease | 10mg/l |
| 5 | Quantity of Discharge | 30 KLD, shall be treated in ETP and treated water shall be reused in process |

- 4(b). The industrial effluent should be treated in treatment plant so that the treated effluent should be in conformity with the following norms.. .

| Industrial Effulant | | |
|----------------------------|------------------------|---|
| S.No | Parameter | Standard |
| 1 | Total Suspended Solids | 100mg/l |
| 2 | BOD | 30mg/l |
| 3 | COD | 250mg/l |
| 4 | Oil & Grease | 10mg/l |
| 5 | Quantity of Discharge | 980 KLD, Treated in ETP and treated effluent shall be reused in process |

5. Effluent generated in all the processes, bleed water, cooling effluent and the effluent generated from washing of floor and equipments etc should be treated before its disposal with treated industrial effluent so that it should be according to the norms prescribed under The Environment (Protection) Act,1986 or otherwise mandatory .
6. The other pollutant for which norms have not been prescribed, the same should not be more than the norms prescribed for the water used in manufacturing process of the industry .
7. The method for collecting industrial and domestic effluent and its analysis should be as per legal Indian standards and its subsequent amendments/standards prescribed under The Environment (Protection) Act, 1986.

8. The treated domestic and industrial effluent be mixed (as per the provisions of Condition No. 2) and disposed of on one disposal point. This common effluent disposal point should have arrangement for flow meter/V Notch for measuring effluent and its log book be maintained .
 9. The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

Specific Conditions:

1. This Consent to Operate Water is valid for production Acrylic Fiber-3750 ton per month.
 2. Industrial effluent 980 KLD shall treated in ETP and the treated effluent shall be reused in cooling tower and process. The domestic effluent 30 KLD is also treated in the ETP. The unit shall be operational on zero liquid discharge outside the premises.
 3. No effluent is allowed to Discharge in any drain/ well/river or any surface water body. The unit shall comply with the provisions of notification No. S.O. 3187(E) dated 07-10-2016 of Ministry of Water Resources, River Development and Ganga Conservation, GOI.
 4. Unit shall operate and maintain properly the installed Web Camera and ensure the connectivity with the server of UPPCB.
 5. The unit shall operate and maintain properly the installed flow meter at the outlet/recycling point of ETP and shall maintain records of the effluent treated and recycled in process.
 6. Unit shall identify recipient drains/ rivulets and their u/s & d/s location in consultation with UPPCB and shall carry out monthly monitoring of identified recipient drains at u/s & d/s location through lab recognized under Environment (Protection) Act,1986 and shall submit the analysis report on monthly basis by 10th of every month to CPCB and UPPCB.
 7. Unit shall obtain NOC from CGWA/UP Ground Water Department and shall comply with Rule 10/11 of UP Ground Water (Management and Regulation) Act 2019.
 8. Unit shall comply to the directions issued by CPCB for the textile and dyeing industries time to time.
 9. Unit shall develop Green Belt in minimum 33 percent area of Industrial Premises as per the provisions laid down in office order no. H16405/220/2018/02 dated 16-02-2018 of U.P. Pollution Control Board. The copy of said office order is available on the website of U.P. Pollution Control Board www.uppcb.com.
 10. Process effluent / any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
 11. Unit shall make temporary storage facility for storage of hazardous waste in the premises before it will send to TSDF as per the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016
 12. Unit shall comply the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016 and shall obtain authorization for disposal of hazardous waste.
 13. Unit shall install the board showing daily environmental statement ie chemicals used in the treatment of effluent, flow meter reading, hazardous waste generated and send to TSDF etc.at the main gate of the unit
 14. Unit shall comply the provisions of Water (Prevention and Control of Pollution) Act 1974 as Amended and Environment (Protection) Act 1986, and direction issued by Hon'ble National Green Tribunal, New Delhi in Order dated 13.07.2017 in OA no. 200/2014, M.C. Mehta v/s Union of India.
 15. Unit shall submit the treated effluent of ETP and ground water quality monitoring report of premises done by MoEF & CC approved laboratory in every 3 months.
 16. This Consent order shall automatically become invalid on issuance of Closure Order by C.P.C.B / UPPCB and further on Revoking of Closure order, the Consent order shall become valid. The above comments are for your kind perusal and further necessary action.

Issued with the permission of competent authority .

Amit
Chandra

For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer



UTTAR PRADESH POLLUTION CONTROL BOARD

TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226010

Phone: 0522-2720828, 2720831 Fax: 0522-2720764 Email: info@uppcb.com Website: www.uppcb.com

Ref. No : 13785/UPPCB/Moradabad(UPPCBRO)/HWM/MORADABAD/2021

Dated :02/03/2021

To,

M/s PASUPATI ACRYLON LTD

KASHIPUR ROAD THAKURDWARA, MORADABAD, 244601

Tehsil : Thakurdwara

District : MORADABAD

Sub :- Authorisation issued under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

1. Number of authorization and date of issue 13785 and 02/03/2021 .
2. Reference of application (No. and date) 11214758 and 03/02/2021 .
3. Mr SATYA PRAKASH GUPTA of M/s PASUPATI ACRYLON LTD is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, utilization, storage and disposal or any other use of hazardous or other wastes or both on the premises situated at KASHIPUR ROAD THAKURDWARA, MORADABAD, 244601 .

Details of Authorisation

| S No. | Category of Hazardous Waste as per the Schedules I, II and III of these rules | Authorised mode of disposal or recycling or utilization or co-processing, etc. | Quantity(ton/annum) |
|-------|---|--|---------------------|
| 1 | Schedule I (Category 35.3.) ETP sludge | TSDF | 10 Ton Per Annum |

1. The authorization shall be valid for a period of 02/03/2026 from the date of issue of this letter .
2. The authorization is subject to the following general and specific conditions (please specify any conditions that need to be imposed over and above general conditions, if any) .

A General Conditions of Authorization -

1. The authorised person shall comply with the provisions of the Environment (Protection Act, 1986, and the rules made there under .
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Board .
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization .
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation .
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time .

6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and penalty .
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility .
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation .
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained .
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation .
11. The importer or exporter shall bear the cost of Import or export and mitigation of damages if any
12. An application for the renewal of an authorisation shall be made as laid down under these Rules .
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time .
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year .
15. The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

B Specific Conditions of Authorization

1. Unit shall ensure compliance of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
2. Unit shall comply with the provisions of Rule 19 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and send copy of Form 10 regarding Manifest for Hazardous and Other Wastes.
3. Unit shall comply with the provisions of Rule 20 of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and submit Annual Returns to State Board in Form IV.

(Authorized Signatory)

Amit

Chandra

UTTAR PRADESH POLLUTION CONTROL BOARD

Copy to: To the Regional Officer, U.P.Pollution Control Board, Moradabad for information and necessary action .

Amit
Chandra
CEO/EE, I/C Circle

Digital signed by Amit Chandra
Digital Signature On U.P. Pollution Control Board
OU-Environment, PostCode:28010, S-Uttar Pradesh,
Prayagraj, India, Date:2021-03-09 12:41:10
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889178333e744cc007f7c3a2ae,CN=Amit
Chandra
Location: your signing location here
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