MINISTRY OF ENVIRONMENT AND FORESTSNOTIFICATION
New Delhi, the 22nd April, 1993
{PART II, SECTION 3, SUB-SECTION (1)}

FORM – V
(See Rule 14)

Environmental Statement for the Financial Year Ending 31st March, 2025

PART – A

i)	Name and address of the Owner / Occupier of the Industry operation or process.	:	Shri. Krishnamoorthy Krishnan (R) 503 Jai Hari Kunj CHS Ltd., 12/13A,Shree Nagar Estate, Goregaon – West, Mumbai 400 062
ii)	Industry Category Primary (STC Code) Secondary (STC Code)	: : :	- RED
iii)	Production Capacity – Units	:	Please refer Annexure I
iv)	Year of Establishment	:	1959 / 2007 November Membrane cell plant
v)	Date of the last environmental statement submitted.	:	26/08/2024

PART – B

Water and Raw Material Consumption

i)	Water Consumption m^3/day Process Cooling Domestic	 : : :	 2735 m^3/d 300 m^3/d 30 m^3/d

Sl. No.	Name of the Products	Process water consumption per unit of product output (M^3/T)	
		During the previous financial year 2023 – 2024	During the current financial year 2024 – 2025
		(1)	(2)
1.	CAUSTIC SODA	5.10	5.06
2.	HYDROCHLORIC ACID	2.67	2.78
3.	LIQUID CHLORINE	Nil	Nil
4.	TRICHLOROETHYLENE	31.89	29.57
5.	BENEFICIATED ILMENITE	6.86	8.66
(Please refer Annexure I A)			

Contd...2

ii) Raw Material Consumption

*Name of raw materials	Name of Products	Consumption of raw material per unit of product out put	
		During the previous financial year 2023 – 2024	During the current financial year 2024 – 2025
Please refer Annexure II			

- Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials.

PART – C

Pollution discharged to environment / unit out put
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (Mass / day)	Concentrations of pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons
a) Water	Please Refer Annexure II A		
b) Air	For breakup details, please Refer Annexure II B Stack analysis report and Ambient Air Quality analysis reports furnished by Tamil Nadu Pollution Control Board are attached herewith – Please refer Annexure II C.		

PART - D

HAZARDOUS WASTES

(As specified under Hazardous& Other Waste (Management & Transboundary Movement) Rules, 2016)

Hazardous Wastes	Total Quantity (in MTs)	
	During the previous financial year(2023-2024)	During the current financial year (2024-2025)
a) From Process	Nil	Nil
b) From Pollution Control facilities	1055.340 (ETP Sludge)	770.496 (ETP Sludge)
c) Used Oil	0.469*	0.520
d) Waste Containing Oil	Nil	Nil

*Used Oil is sold to authorized agency. Refer Annexure – VII.

Contd…3

PART – E

SOLID WASTES

Non-Hazardous Wastes	Total Quantity	
	During the previous financial year 2023 – 2024	During the current financial year 2024 – 2025
a) From Process – CALCIUM HYDROXIDE CALCIUM CHLORIDE From Membrane cell Caustic Soda Plant BRINE SLUDGE	2527 MT 2184 MT 2622.484 MT	2668 MT 2218 MT 2607.0168 MT
b) From Pollution Control Facilities	Nil	Nil
c) 1) Quantity recycled or re-utilized within the Unit.	Calcium Hydroxide 1837 MT	Calcium Hydroxide 1939 MT
2) Sold	Calcium Chloride 2184 MT Calcium Hydroxide 690 MT	Calcium Chloride 2218 MT Calcium Hydroxide 729 MT
3) Disposed	Brine Sludge 2622.484 MT	Brine Sludge 2607.0168 MT

For the details of solid waste generation from the process and from Pollution Control facility, please refer Annexure III-A and B

PART - F

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

Please refer Annexure IV

PART – G

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

Please refer Annexure V

Contd…4

PART - H

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

Please refer Annexure VI

PART - I

Any other particulars for improving the quality of the environment.

Please refer Annexure VI

Signature:

Name & Address of the person submitting the: Environmental Statement	S. Suresh VICE PRESIDENT (Manufacturing) DCW LIMITED SAHUPURAM PO 628229 THOOTHUKUDI DIST.
On behalf of Name and Address of the Unit :	DCW LIMITED (CS DIVISION) SAHUPURAM 628 229 THOOTHUKUDI DIST

Annexure – I

DCW Limited, Sahupuram.

DETAILS OF PRODUCTS MANUFACTURED

Sl. No.	Name of the Products	Consented Quantity in MT per month	Actual Quantity in MT per month (Avg.)
1.	CAUSTIC SODA	8,490	6382
2.	TRICHLOROETHYLENE	600	255
3.	BENEFICIATED ILMENITE (UGI)	6,000	3055
4.	LIQUID CHLORINE	3,000	1919
5.	HYDROCHLORIC ACID	7,500	4238
BY-PRODUCT			
1.	CALCIUM HYDROXIDE	450	222
2.	SODIUM HYPOCHLORITE (RECOVERED FROM CHLORINE EMISSION CONTROL)	450	375
3.	FERRIC CHLORIDE (RECOVERED FROM EFFLUENT)	1,000	458

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FORM – V
(See Rule 14)

Environmental Statement for the Financial Year Ending 31st March, 2025

PART – A

i) Name and address of the Owner / Occupier of the Industry operation or process. : Shri. Krishnamoorthy Krishnan
(R) 503 Jai Hari Kunj CHS Ltd.,
12/13A,Shree Nagar Estate,
Goregaon – West,
Mumbai 400 062

ii) Industry Category

Primary (STC Code) : Orange
Secondary (STC Code) : -

iii) Production Capacity – Units :

	Consented (TPA)	Actual (TPA)
PVC	– 140000	97960
CPVC	– 21500	21112

iv) Year of Establishment : 1983 (Revamped) – Expanded capacity CTO obtained during 08.08.2023.

v) Date of the last environmental statement submitted. : 26/08/2024

PART – B

Water and Raw Material Consumption

i) Water Consumption m^3 / Day

		PVC	CPVC
Process	:	894 m^3	295 m^3
Cooling	:	1084 m^3	110 m^3
Domestic	:	6 m^3	

Sl. No.	Name of the Products	Process water consumption per unit of product out put	
		During the current financial year 2023 – 2024	During the current financial year 2024 – 2025
		(1)	(2)
1.	Poly Vinyl Chloride	3.509 m3	3.341 m3
2.	Chlorinated Poly Vinyl Chloride	4.819 m3	5.030 m3

*Water Consumption includes recycled water.

Contd..2

ii) Raw Material Consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of product out put	
		During the previous financial year 2023 - 2024	During the current financial year 2024 – 2025
1) VINYL CHLORIDE MONOMER	PVC RESIN	1.010	1.016
2) PVC Resin	Chlorinated Poly Vinyl Chloride	0.780	0.784
3) Chlorine	Chlorinated Poly Vinyl Chloride	0.540	0.545

PART – C

Pollution discharged to environment / unit out put
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (Mass / day)	Concentrations of pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons
a) Effluent Water	120 m3/day from PVC ETP RO Reject and used in ilmenite plant for product washing.	pH: 7.17-8.3 TSS: 2 mg/l TDS: 374 - 1526 mg/l Chloride: 139-699 mg/l Sulphate: 22 - 125 mg/l BOD: 2.0 – 2.90 mg/l COD: 48 – 176 mg/l	Discharge meets standards
b) Sewage	6.0 KLD	pH: 7.33 – 7.86 TSS: 2 mg/l BOD: 2.0 – 3.1 mg/l	Discharge meets standards
c) Air			
Particulate Matter	PVC-9.83 kg/day CPVC-8.64 kg/day	PVC-30.55 mg/Nm^3 CPVC-29.55 mg/Nm^3	- 79.6%(PVC) - 80.3%(CPVC)

Contd.. 3

PART - D
HAZARDOUS WASTES

As specified under Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016

Hazardous Wastes	Total Quantity	
	During the previous financial year (2023-2024)	During the current financial year (2024-2025)
a) From Process Used Oil*	1.446 MT	1.20 MT
b) From Pollution Control Facilities.	No hazardous waste from PVC Unit.	

*Used Oil Sold to authorized agency.

PART – E
SOLID WASTES

Solid Wastes	Total Quantity (MT)	
	During the previous financial year 2023 - 2024	During the current financial year 2024– 2025
a) From Process – Off Grade resin	53.475	55.0
b) From Pollution Control Facilities	Nil	Nil
c) 1) Quantity recycled or re-utilized within the Unit.	Nil	Nil
2) Sold (as Off grade Resin)	53.475	55.0
3) Disposed	Nil	Nil

PART - F

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

S. No	Type of waste	Characterization	Mode of disposal
1	Hazardous waste Used oil	Used Oil composition: 1) Cadmium + Chromium + nickel (Nl): 48.5 mg/kg 2) Arsenic : BDL (DL: 0.1 mg/kg) 3) Lead (as PB) : 8.5 mg/kg 4) Polychlorinated biphenyl (PCBs): BDL (DL:1.0 mg/Kg)	Sold to authorized vendors
2	Solid waste Off grade resins	-	The generated quantity is sold.

Used oil of 1.20 MT fall under Category 5.1 is sold to authorized agency. Refer Annexure – 1.

Contd.. 4

PART – G

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

- We have already installed On-line system for VCM emission monitoring at ten vantage locations of the plant process, handling and storage areas, with an investment of around Rs.10 lakhs.
- The critical air quality parameter (VCM) is monitored continuously and the same is hooked up to Care Air Centre at the TNPCB HQ at Chennai.
- All dryers are provided with cyclone separators to control particulate matter emission and operated effectively.
- As water conservation efforts, we have carried out recycling and reuse of treated rejects for the product washing in the Ilmenite plant of our unit. The ultrafiltration system is provided for the effluent generated from the superdecantor and the permeate is completely reused in DM Plant.

PART - H

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

- We have already installed On-line system for VCM emission monitoring at ten vantage locations of the plant process, handling and storage areas, with an investment of around Rs.10 lakhs.
- The critical air quality parameter(VCM)is monitored continuously and the same is hooked up to Care Air Centre at the TNPCB HQ at Chennai.
- We have introduced advanced stripping tower system for the recovery of residual VCM from PVC slurry with an investment of about Rs.14 crores.
- Scrubbing system provided in the Fluidized Bed Dryer for effective dust control in the dryer vent.
- We have installed Continuous ambient air quality monitoring station to monitor PM10, PM2.5, VCM, SO2, NOx, CL2 & Ammonia) in Ambient surrounding the unit and the same has been connected to Care Air Centre, TNPCB from 28.07.2022 onwards.
- We have installed Continuous Emission monitoring station to monitor SPM & VCM in dryer stack and the same has been connected to Care Air Centre, TNPCB from 28.07.2022 onwards.

Contd.. 5

PART - I

The CSR activities carried out during the period 2024-25 by the management to improve the environment, ensure environmental sustainability and rural developments are:

- To enhance the local infrastructure and the connectivity of villages, constructed a bridge (Jain Bridge) in Kadamba channel near Thalaivanvadali village.
- Promoting healthcare by contributing a computer to the Primary Health Centre (PHC) in Authoor, as requested by the Public Health Department, to support administrative and medical record-keeping functions.
- To promote healthcare, including preventive health care, we deputed sanitary workers to the Government Hospital in Tiruchendur.
- To promote the agricultural activities, donated the PVC pipelines to Authoor keelkulam Farmers Association.
- As per the request from Kayalpatnam Municipality, provided two Manjappai vending machines, an initiative promoted by the Tamil Nadu Government.
- By improving water flow, enhancing irrigation efficiency, reducing flooding risks, and promoting sustainable agricultural practices for long-term growth and environmental conservation, we desilted the channels from Kurangani to Authoor, Arumugamangalam and surrounding villages.
- Donation of groceries to provide a one-day lunch (almsgiving) salt worker in Kayalpatnam Municipality.
- To ensure environmental sustainability, ecological balance, and the conservation of natural resources, DCW contributed 1,000 liters of diesel for machinery used to desilt and clean the debris and Juliflora in the bed of the Thambrabarani River.
- To ensure environmental sustainability, ecological balance, and the conservation of natural resources, we arranged for epoxy paints to protect the masonry structure of the bridge constructed over the Kadamba Surplus Channel (Jain Bridge).
- As part of disaster management efforts, we arranged the JCB for clearing the flood affected areas at Authoor, Sethukkuvaithan and Thanneerpandal villages.
- As part of livelihood enhancement efforts, cleared the sand from the seashore to facilitate the movement of fishing boats entering the sea, as requested by the Singhithurai Village Committee, Kayalpatnam.
- To support student training, donated the 10 units of 22” Miruthangams to Harbour Higher Secondary School in Thoothukudi.
- Donated the desktop computer, UPS, Laser printer, uniforms, notebooks, geoboxes, tables and chairs to nearby village schools.
- Repairs and restoring works to the temples in and around of Sahupuram

Contd.. 6

- Distribution of cooking wares, stainless steel plates, and vessels to the flood-affected people within the Thoothukudi Corporation limits as part of the relief and rehabilitation efforts.
- Installation of 15 units of street light fittings in Palayakayal and Manjalneerkkayal villages to improve street lighting and enhance safety for local residents.
- As part of our rural development, arranged the JCB for cleaning activities at seashore areas, Temples, playground, railway station and schools.
- Provided the two high-mast lamps in Kuchikadu - Mela Authoor Village and Mela Sernthamangalam - Sernthamangal Village to improve street lighting and enhance safety for residents.
- DCW undertook the cleaning of roadsides, public gathering areas, and in Kayalpatnam, Arumugneri, Authoor, Punnakkayal.
- Providing drinking water facility to Kayalpatnam municipality, nearby schools, Orphanages, large festivals, etc

Signature:

Name & Address of the person submitting the: Environmental Statement	S. SURESH VICE PRESIDENT (Manufacturing) DCW LIMITED SAHUPURAM PO 628229 THOOTHUKUDI DIST.
On behalf of Name and Address of the Unit :	DCW LIMITED (PVC DIVISION) SAHUPURAM 628 229 THOOTHUKUDI DIST

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(R) 503 Jai Hari Kunj CHS Ltd.,
12/13A,Shree Nagar Estate,
Goregaon – West,
Mumbai 400 062.

ii) Industry Category

Primary (STC Code) : RED
Secondary (STC Code) : -

iii) Production Capacity - Units : Consented – 58.27 MW (2 x 25 + 8.27)
Actual Generation for 24-25 – 27.31 MW

iv) Year of Establishment : June 2008 & Nov 2010

v) Date of the last environmental statement submitted. : 26/08/2024

PART – B

Water and Raw Material Consumption

i) Water Consumption m^3/day

Process : 351 m^3/d
Cooling : 1638 m^3/d
Domestic : 10 m^3/d

Sl. No.	Name of the Products	Process water consumption per unit of product out put	
		During the previous financial year 2023 – 2024	During the current financial year 2024 – 2025
		(1)	(2)
1.	For Steam Generation	3.116 m^3/Hr/MW	3.051 m^3/Hr/MW

Contd..2

ii) Raw Material Consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of product out put	
		During the previous financial year 2023 – 2024	During the current financial year 2024 – 2025
Coal	Power Generation	0.972 T/MW	0.974 T/MW

PART – C

Pollution discharged to environment / unit out put
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (Mass / day)	Concentrations of pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons
a) Water	The average effluent generated in the plant is about 670 m^3/day • RO permeate of about 402 m^3/day is recycled for Cooling tower makeup • RO reject of about 268 m^3/day is used for ilmenite product washing, dust suppression and ash conditioning.	pH: 6.98 – 8.24 TSS: 2 mg/L TDS: 1218– 1954 mg/L Chloride: 260– 782 mg/L Sulphate: 36 – 112 mg/L BOD: 2.1 – 2.9 mg/L COD: 56-216 mg/L	-
b) Sewage	4.0 KLD - Treated in the Industrial STP and Treated sewage used for Milk of lime Preparation and meets the standard.	pH: 7.33 – 7.86 TSS: 2 mg/l BOD: 2.0 – 3.1 mg/l	-
c) Air			
Particulate Matter	111.06 kg/d	42.00 mg / m3	-16.00 %
Sulphur Dioxide	401.54 kg/d	152.00 mg / m3	-74.67 %
Oxides of Nitrogen	180.46 kg /d	68.05 mg / m3	-84.88 %

Contd.. 3

PART - D

HAZARDOUS WASTES

As specified under Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016

Hazardous Wastes	Total Quantity	
	During the previous financial year 2023-2024	During the current financial year 2024-2025
a) From Process – Used Oil	0.853 MT	0.840 MT
b) From Pollution Control Facilities.	Nil	Nil

PART – E

SOLID WASTES

Solid Wastes		Total Quantity (MT)	
		During the previous financial year 2023– 2024	During the current financial year 2024– 2025
a) From Process Bed Ash Fly Ash		 2199.97 12494.35	 1684.98 16068.31
b) From Pollution Control Facilities			
c) 1) Quantity recycled or re-utilized within the Unit. (Bed Ash)		2199.97	1684.98
2) Sold	Fly Ash	12494.35	16068.31
3) Disposed	Bed Ash	Nil	Nil

PART - F

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

In Cogen Plant, used oil is generated from Turbine bearing lubrication and sold to authorized agency. Refer Annexure – 1.

The total ash quantity is maintained less than the consented quantity of 2500T/month.

Contd.. 4

S. No	Type of waste	Characterization	Mode of disposal
1	Hazardous waste Used oil:	Used Oil composition: 1) Cadmium + Chromium + nickel (NI): 48.5 mg/kg 2) Arsenic : BDL (DL: 0.1 mg/kg) 3) Lead (as PB) : 8.5 mg/kg 4) Polychlorinated biphenyl (PCBs): BDL (DL:1.0 mg/Kg)	Used Oil is collected separately and sold to authorized parties
2	Solid waste Bed Ash Fly Ash	-	Fly ash is sold to cement units / Brick Manufacturers on daily basis. The Bed Ash generated is used for in-house purpose viz. bund strengthening, road formation inside premises.

PART – G

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

The boilers are attached with advanced Electrostatic precipitator with three field arrangements for effective containment of suspended particulate matter.

The net effluent generated from the cooling tower bleed off, DM water treatment RO system and mixed bed regenerating are collected in equalization tank, treated in a dedicated effluent treatment plant exclusively provided with RO system. The permeate is recycled for cooling tower makeup and the reject is used for Ilmenite product washing dust suppression, and ash conditioning in such a way that the net effluent generated is fully utilized within the plant.

The secondary water treatment for the effluent generated from the system conserves resource saving of about 980 m^3 / day of river water.

PART - H

Additional measures / investment are proposed for environmental protection including abatement of pollution, prevention of pollution.

- Additional measures are taken for development of green belt by planting tree saplings with systematic and sustained efforts.
- The coal is stored in stacks not more than 5m height in closed storage yards of capacity 10000 MT.

Contd.. 5

- The coal from storage yards are transferred to the plant through closed conveyor systems.

- Manual as well as automatic water sprinkler systems are provided as dust suppression systems.

- The unit has an Online Continuous Emission/Effluent Monitoring System for Core Parameters Viz. SO_2, NOx & PM furnaces for Emission and pH, TSS & Temperature for Effluent parameters and the same is continuously being uploaded to TNPCB & CPCB server.

PART - I

Any other particulars for improving the quality of the environment.

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Contd.. 6

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- Providing drinking water facility to Kayalpatnam municipality, nearby schools, Orphanages, large festivals, etc.

Signature:

Name & Address of the person submitting the: Environmental Statement

S. SURESH
VICE PRESIDENT (Manufacturing)
DCW LIMITED
SAHUPURAM PO 628229
THOOTHUKUDI DIST.

On behalf of Name and Address of the Unit :

DCW LIMITED
(COGEN POWER PLANT DIVISION)
SAHUPURAM 628 229
THOOTHUKUDI DIST