MAHARASHTRA POLLUTION CONTROL BOARD

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Kalpataru Point, 3rd & 4th floor, Sion- Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E),
Mumbai - 400 022

Red/L.S.I *Date:* 30/01/2013
Consent No: BO/JD-PAMS/EIC.NO-RD-2500-13/R/CC-918

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundry Movement) Rules 2008
[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

.....

CONSENT is hereby granted to

Sudarshan Chemical Industries Limited
Plot No-46, 44, 44 (part), 45, 46 (part),
MIDC Dhatav, Tq-Roha-402116,
Maharashtra, India

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

1. **The Consent to Operate is granted for a period up to: 31/12/2015.**

2. **The Consent is valid for the manufacture of –**

Sr. No.	Product Name		Maximum Quantity	UOM
1	Pigments (Organic Pigments, Inorganic Pigments, Pearl Pigments, Pigment Preparation, Florescent Pigment & HP Dye)		20088	MT/A
2	Intermediates (For Pigments, Agro Chemicals & Fine Chemicals)		4824	MT/A
3	Pesticides Technical (Organo Phosphorous Pesticides, insecticides, Herbicides, fungicides, Bio products, Rodenticides, Plant growth regulators, Herbicides)		5958	MT/M
4	Pesticides Formulation	Liquid	5000	KL/A
		Solid	1200	MT/A

3. **CONDITIONS UNDER WATER ACT:**

(i) The daily quantity of trade effluent from the factory shall not exceed 5688.0M3.
(ii)The daily quantity of sewage effluent from the factory shall not exceed 170.0M3.

(iii) **Trade Effluent :**

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

1	pH	Between	6.5 to 8.5
2	BOD 3 days 27 Deg	Not to exceed	100 mg/l
3	COD	Not to exceed	250 mg/l
4	Suspended Solids	Not to exceed	100 mg/l
5	Oil & Grease	Not to exceed	10 mg/l
6	Bio-assay test	90 % survival of fish after 96 hours in 100% effluent	
	a) Specific Pesticides		
1	Benzenl Hexachloride	Not to exceed	10 mg/l
2	Carbonl	Not to exceed	10 mg/l
3	DDT	Not to exceed	10 mg/l
4	Endosalfan	Not to exceed	10 mg/l
5	Diamethoate	Not to exceed	450 mg/l
6	Fenitrothion	Not to exceed	10 mg/l
7	Malathoin	Not to exceed	10 mg/l
8	Phorate	Not to exceed	10 mg/l
9	Methyl Parathion	Not to exceed	10 mg/l
10	Penathoate	Not to exceed	10 mg/l
11	Pyrethrums	Not to exceed	10 mg/l
12	Copper Oxyghloride	Not to exceed	9600 mg/l
13	Copper Sulphate	Not to exceed	50 mg/l
14	Ziram	Not to exceed	1000 mg/l
15	Sulphur	Not to exceed	30 mg/l
16	Paraquat	Not to exceed	2300 mg/l
17	Proponil	Not to exceed	7300 mg/l
18	Nitogen	Not to exceed	780 mg/l

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	b) Heavy Metals		
1	Copper	Not to exceed	1.0 mg/l
2	Maganese	Not to exceed	1.0 mg/l
3	Zinc	Not to exceed	1.0 mg/l
4	Mercury	Not to exceed	0.01 mg/l
5	Tin	Not to exceed	0.10 mg/l
6	Any other metal like Nickel etc	Shall not exceed 5 times the drinking water standards of BIS	
	c) Organics		
1	Phenol and Phenolic Compound as $C_6 H_5 OH$	Not to exceed	1.0 mg/l
	d) Inorganics		
1	Arsenic (as As)	Not to exceed	0.2 mg/l
2	Cyanide (as CN)	Not to exceed	0.2 mg/l
3	Nitrate (as NO_3)	Not to exceed	50.0 mg/l
4	Phosphate(as P)	Not to exceed	5.0 mg/l

Note: - all parameters will be compulsory for formulators for others the seventh (7th) will be optional.

(iv) **Trade Effluent Disposal:** The treated industrial effluent shall be segregated and reused back into process to maximum extent and remaining treated effluent shall be send to CETP for further treatment & disposal. There should not be any discharge of effluent outside factory premises.

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

(1)	Suspended Solids	Not to exceed	100	mg/l.
(2)	BOD 3 days 27o C.	Not to exceed	100	mg/l.

(vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, shall be used on land for gardening / plantation only.

(vii) **Non-Hazardous Solid Wastes:**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	Boiler Ash (Briquette/ Coal)	16.00	Ton/D	Sale to Brick Maker
2	Paper, Plastic, Sweep Age	310.00	Kg/Day	Incineration
3	Process Potatoes Waste	80.00	Kg/Day	Bio Gas / Vermin Composting
4	Drums/ Barrels	8800.00	Nos./Y	By Sale
5	HDPE Bags	200.00	Kg/Day	By Sale
6	Mica Waste	1500.00	Ton/Y	By Sale/ MWML

(viii)**Other Conditions:** Industry should monitor effluent quality regularly.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under

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

(i) Domestic purpose	...	235.0 CMD
(ii) Water gets Polluted & Pollutants are Biodegradable	...	6063.0 CMD
(iii) Water gets Polluted, Pollutants are not Biodegradable & Toxic	...	300.0 CMD
(iv) Industrial Cooling, spraying in mine pits or boiler feed	...	288.0 CMD
(vi) Agriculture/Gardening	...	10.0 CMD

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

5. CONDITIONS UNDER AIR ACT:

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

a. Control Equipment:

Industry shall provide dust collector/scrubber of sufficient capacity to control the emissions.

Conditions for D.G. Set

a. Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
b. Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
c. The industry shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Day time is reckoned between 6 a.m. to 10 p.m and night time is reckoned between 10 p.m to 6 a.m.
d. Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
e. Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
f. A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use
g. D.G. Set shall be operated only in case of power failure
h. The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

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Standards for Incinerator as per CPCB guidelines:

Applicant shall provide and/or upgrade the existing incinerator so as to comply the following standards and conditions.

A] Emission limit of Incineration while operating properly at 100 % rated capacity, shall have an emission limit from the discharge stack to atmosphere of less than or equal to :

Parameter	Emission limit (mg/Nm³)
Particulate Matter	50
HCI	50
SO_2	200
CO	100
Total Organic Carbon	20
HF	4
NO_X	400

All values corrected to 11% oxygen on a dry basis.

B] Hydro carbons 10 ppm over an hourly rolling average dry basis, measured as propane.

C] **Capacity :** While operating properly at 100% rated capacity, the system shall be have a visible emission rate of less than or equal to 10% except for condensed water vapour from the discharge stack to Atmosphere (one hour rolling averages).

D] **Dioxin Furans:** While operating properly at 100% rated capacity, the system shall be an emission of dioxins and furans of less than of equal to 0.1 manogram TEQ/NM3 corrected to 10% oxygen, Sampling period shall be minimum 5 hours and maximum 8 ours. Analysis at dioxin and furans as well as reference measurement methods to calibrate automated measurement system shall be carried out as given by CEN standards. II.CEN standards are not available, ISO Standards, National or International Standards which will ensure the provision of data of an equivalent scientific quality shall apply.

E] **Metals:** While operating properly at rated capacity, the system shall have an emission rate from the discharge of stack to atmosphere less than or equal to:

Metal	
Cd+Th (and its compounds)	0.05Mg/NM3
Hg (and its compounds)	0.05
Sb+As+Pb+Cr+Co+Mn+Nr+V (and their compounds)	0.5

All values corrected to 11% oxygen on a dry volume basis.

F] **Operating Standards:**

1. Combustion efficiency (CE) shall be at least 99.9% and shall be computed as follows-
   CE= %Co2/% CO% + % CO] x 100
2. Temperature of the primary chamber shall be at least 850°C.
3. Secondary chamber gas residence time shall be at least 2 (two) second at 11009C will minimum 3% oxygen in the stack gas.
4. Destruction and Removal Efficiency (DRE) for each principal Organic hazardous Constituent (POHC) in the waste lead shall be at least 99.99%.

5. DRE for hazardous waste containing PCBs. PCTs and other colonnaded compounds shall be 99.9999%.

G] **Air pollution control devices:** The emission control system shall be installed for cleaning and removal of air pollutants. The system shall comprise of following equipment. Singly or in combination with design efficiencies to meet the emission norms:

i) Waste heat boiler/heat exchange/quench
ii) Bag filters (ESP)/Cyclone
iii) Dry/wet scrubber with hydrated lime or sodium hydroxide injection.
iv) Chimney/ stack of minimum 30 m height or as per formula

14 (Q) [01] [Where Q is emission rate of SO_2 in Kg hr]

Whichever is more and designed as per GEP.

[**Note**: Dry/wet ESP, spray dryer, dediex filter and mist eliminator shall also be considered as may be required.]

H] **Operating Conditions:** Incineration plants shall be operated in order to achieve a level of incineration such that the slag and bottom ashes Total Organic Carbon (TOC) content is less than 3% or their loss on ignition is less than 5 of the dry weight of the material. If necessary, appropriate techniques of waste pre-treatment shall be used. Incineration plants shall be designed, equipped, built and operated in such a way that the gas resulting from the process is raised after the last injection of combustion air, in a controlled and homogenous fashion and even under the most unfavorable conditions to a temperature of 850°C as measured near the inner wall or at another representative point of the combustion chamber as authorized by the Competent Authority for two seconds. If hazardous wastes with a content of more than 1% of halogenated organic substances, expressed as chlorine, are incinerated, the temperature has to be raised to 1200°C + 100 for at least two seconds.

Each line of the incineration plant shall be equipped with at least one auxiliary burner. This burner must be switched on automatically when the temperature of the combustion gases after the last injection of combustion air falls below 850°C or 1100°C as the case may be is maintained at all times during these operations and as long as unburned wastes is in the combustion chamber.

During the start up and shut down or when temperature of the combustion gas falls below: 850°C or 1100°C as line the case may be, the auxiliary burner shall not be fed with fuels emissions than those permitted.

I] **Monitoring requirements**: Continuous monitoring and recording system for opacity CO, SO_2 and NOx shall be installed and reported shall be sent to the State Pollution Control Boards on regular basis. Interlocking arrangements for CO and temperature controls (in primary and secondary chamber) with feeding devices shall also be provided waste feed has also to be terminated on lass of ignition in the after burner safety valve in case of high pressure development in the furnace.

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J] **Notification of Compliance:** The operator of the incinerator shall undertake comprehensive performance test. Within 90 days of completion of comprehensive performance test. The operator shall issue a notification of compliance documenting compliance or non compliance, as the case may be, for public information.

K] Standards for Emissions due to Incineration of Industrial effluent:

Sr. No.	*Pollutants*	*Limit*
1.	Particulate	30 mg/Nm^3
2.	HCI	50 mg/Nm^3
3.	SO_2	200 mg/Nm^3
4.	CO	100 mg/Nm^3
5.	HBr	60 mg/Nm^3
6.	Dioxin/Furan	0.1 µg TEQ/Nm^3
7.	Opacity	10%
8.	Cadmium (Cd)	0.05 mg/Nm^3
9.	Thallium (TI)	0.05 mg/Nm^3
10.	Mercury (Hg)	0.05 mg/Nm^3
11.	Antimony (Sb)	0.5 mg/Nm^3
12.	Arsenic (As)	0.5 mg/Nm^3
13.	Lead (Pb)	0.5 mg/Nm^3
14.	Chromium (Cr)	0.5 mg/Nm^3
15.	Cobalt (Co)	0.5 mg/Nm^3
16.	Copper (Cr)	0.5 mg/Nm^3
17.	Manganese (Mn)	0.5 mg/Nm^3
18.	Nickel (Ni)	0.5 mg/Nm^3
19.	Vnadium (V)	0.5 mg/Nm^3
20.	Tin (Sn)	0.5 mg/Nm^3

b. Standards for Emissions of Air Pollutants:

S.No	Parameters	Standards	
1	SPM/TPM	Not to exceed	150.0 mg/Nm^3
2	SO_2 (boiler)	Not to exceed	1200 kg/day.
3	SO_2 (process)	Not to exceed	50.0 ppm.
4	HCL	Not to exceed	20 mg/Nm^3
5	Cl_2	Not to exceed	5.0 mg/Nm^3
6	H_2S	Not to exceed	5.0 mg/Nm^3
7	P_2O_5 (as H_3PO_4)	Not to exceed	10.0 mg/Nm^3
8	NH_3	Not to exceed	30.0 mg/Nm^3
9	Particulate matter with pesticides compounds	Not to exceed	20.0 mg/Nm^3
	CH_3 Cl	Not to exceed	20.0 mg/Nm^3
	HBr	Not to exceed	5.0 mg/Nm^3

c. Standards for Emissions of VOC Pollutants:

Sr. No.	Petrochemical process / compounds	Maximum emission limit (mg/Nm^3) dry basis.
1	MA, PA, Phenol	20
2	Ethyl benzene (EB), Styrene, Toulene, Xylene, Aromatics, EG, PG	100
3	Non-methane HC (paraffin), Acetone, olefins	150

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

Sr. No.	Type Of Fuel	Quantity	UOM
1	Furnace Oil	18.00	KL/day
2	Coal	80.00	MT/day
3	Bagasse	20.00	MT/day
4	LDO	1000.00	Ltrs/day
5	LPG	200.00	Kg/day

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

Sr. No.	Chimney Attached To	Height in Mtrs.
1	Boiler-I (Coal/FO)	45.00
2	Incinerator	35.00
3	Boiler-II (Coal)	45.00
4	Thermopac	20.00
5	D.G. Set 624 KVA	6.00
6	Scrubber For HPP Ammonia	20.00
7	Scrubber For inorganic Pigment	20.00
8	Scrubber For Organic Pigment	20.00
9	Scrubber For Lead Dissolution Pigment	20.00
10	Scrubber For Calcinations	20.00
11	Scrubber For Cadmium	20.00
12	Air Wash Unit-TTK-3000163	16.00
13	Scrubber For Cadmium Calcinations/ Dissolution	20.00
14	Air Wash Unit-TTK-3000162	16.00
15	PMN Reaction	25.00
16	MCP Reaction	25.00
17	Common Scrubber-Cl2	25.00
18	D.G. Set 1000KVA	6.50
19	D.G. Set 1150 KVA	6.70
20	D.G. Set 250 KVA	4.00

(iii) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

(iv) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

(vi) **Other Conditions:**

1) The industry should not cause any nuisance in surrounding area.
2) The industry should monitor stack emissions and ambient air quality Regularly.

6. CONDITIONS UNDER HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDRY MOVEMENT) RULES, 2008:

(i) The Industry shall handle hazardous wastes as specified below.

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	3.3 Sludge and filters contaminated with oil	200.00	Kg/A	CHWTSDF
2	15.2 Discarded asbestos	1.00	MT/A	CHWTSDF
3	26.1Process waste sludge/ residues	20.00	MT/A	Recyclable
4	5.2 Wastes/residue containing oil	300.00	Ltrs/A	CHWTSDF / Incinerated in their own plant
5	Chemical sludge from waste water treatment	1500.00	MT/A	CHWTSDF
6	33.3 Discarded containers / barrels / liners	8000.00	No's/A	Returned to Suppliers or recyclers
7	29.3 Date-expired and off-specification pesticides	4.00	Kl/A	CHWTSDF / Incinerated in their own plant
8	36.2 Ash from incineration of hazardous waste	8.00	MT/A	CHWTSDF
9	33.3 Discarded containers / barrels / liners	3.00	MT/A	CHWTSDF
10	35.1 Filters and filter materi which have organic liquid	3.00	MT /A	CHWTSDF
11	35.3 Spent carbon*	3.00	MT /A	CHWTSDF
12	34.1Flue gas cleaning residue	3.00	MT /A	CHWTSDF
13	35.2 Spent catalyst	8.00	MT /A	CHWTSDF
14	5.1 Used /spent oil	800.00	Ltr/M	CHWTSDF for sale to authorized party approved CPCB/ MoEF

(ii) Treatment: - NIL

1. The authorization is hereby granted to operate a facility for collection, storage, transport & disposal of hazardous waste.
2. The industry should comply with the Hazardous Waste (M&H) Rules, 2003.

a. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.

b. Industry shall obtain registration from CPCB as a re-refiner of Used oil having environmentally sound technology as per the provisions of Hazardous Waste (Management & Handling) Rules 1989 & Amendment Rules 2003 before commencement of production.

c. The unit has to display and maintain the data online outside the factory main gate in Marathi & English both on a 6'x4' display board in the manner and the report of the compliance along with photograph shall be submitted to this office & concerned Regional Office/ Sub Regional Office.

d. It shall be ensured that the Hazardous waste is handled, managed & disposed of strictly in accordance with the Hazardous Waste (Management & Handling) Rules, 1989 as amended on 2003 and shown & submitted to the Board as & when asked for.

7. Industry shall comply with following additional conditions:

i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
iii. Solid waste – The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal to dumping ground.
iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
v. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent / emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
viii. The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
ix. As inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
x. The applicant shall install a separate electric meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes / sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection System.
xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.

8. If CETP does not work for achieving standards & problem of pollution occurs, industry shall voluntarily stop the production or total effluent shall be reused.

9. The industry shall also comply with the Industry specific standards notified under Environment Protection Act.

10. This Consent is issued pursuant to the decision of Consent Committee meeting of the Board held on 18/01/2013.

11. The use of the structures in plot No's-44, 44(part), 45, 46 (part) shall be use as Godown of raw material & finish goods as per the MIDC letter No-MIDC/ROM/Roha/1054 dtd-28/06/2005.

12. The Capital investment of the industry is Rs. 98.56 Cr.

(Rajeev Kumar Mital, IAS)
Member Secretary

To,
Sudarshan Chemical Industries Limited
Plot No-46, 44, 44 (part), 45, 46 (part),
MIDC Dhatav, Tq-Roha-402116,
Maharashtra, India

Copy for information to:-
Regional Officer MPCB Raigad.
Sub-Regional Officer MPCB Raigad-II
Chief Account Officer MPCB Mumbai

Received Consent fee of –

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	225000	460317	16 Nov 2012	SBI Bank
2	150000	460556	06 Dec 2012	SBI Bank

Maharashtra Pollution Control Board