Shree Mahakali Dyes & Chemicals
MFG. OF DYES & CHEMICALS
Plot No. C1/413, GIDC Estate, Ankleshwar - 393 002. Dist. Bharuch. M. : 9737297393 E-mail : shreemahakalidyes@gmail.com

August 25, 2020 **BY HAND DELIVERY/RPAD**

To,
The Member Secretary (Industry-II)
Ministry of Environment, Forest & Climate Change,
Government of India,
Indira Paryavarn Bhavan,
Aliganj, Jor Bagh Road,
New Delhi – 110 003

SUB:	**SUBMISSION OF ADDITIONAL DETAILS SOUGHT AFTER CONSIDERATION OF PROJECT IN 21st MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-2 SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006, HELD DURING JULY 14-16, 2020 TO OBTAIN ENVIRONMENTAL CLEARANCE FOR PROPOSED DYES AND DYES INTERMEDIATES (145 MT/MONTH) IN EXISTING INORGANIC (1125 MT/MONTH) MANUFACTURING UNIT AT PLOT NO. C1/413, 412, GIDC ESTATE, ANKLESHWAR - 393 002, DIST: BHARUCH, GUJARAT, INDIA OF M/s. SHREE MAHAKALI DYES AND CHEMICALS**
CATEGORY:	**AS MENTIONED ABOVE PROPOSED PROJECT FALL UNDER CATEGORY B1 AND SAME WILL BE TREATED AS CATEGORY A AS PER BELOW MENTIONED REFERENCE.**
REF:	**EIA NOTIFICATION OF MOEF DATED SEPT. 14, 2006** **CONSIDERING OM ISSUED BY CPCB VIDE ORDER NO CPCB/IPC-VII/CEPI/NGT/2019 ON DATED:-25/10/2019 GENERAL CONDITION WILL BE APPLICABLE TO OUR UNIT. [I.E. PROJECTS FALL UNDER CATEGORY B1 WILL BE TREATED AS CATEGORY A, OUR PROJECT IS LOCATED AT NANDESARI, DIST:- BHARUCH AND NANDESARI IS DECLARED AS CRITICALLY POLLUTED AREA]**
PROPOSAL NO.	**IA/GJ/IND2/139258/2018**
FILE NO.	**SEIAA/GUJ/TOR/5(f)/553/2018**

Dear Sir,

This has reference to the above mentioned subject matter. We are submitting herewith additional details sought by concerned Member Secretary after consideration of project in 21st Meeting of the Expert Appraisal Committee on July 16, 2020 for Proposed Dyes and Dye Intermediates (145 MT/Month) in Existing Inorganic (1125 MT/Month) Manufacturing Unit at Plot No. C1/413, 412, GIDC Estate, Ankleshwar - 393 002, Dist: Bharuch, Gujarat, India of M/s. Shree Mahakali Dyes and Chemicals.

We hope you would find the same in order.

Thanking you.
Yours faithfully,

For **Shree Mahakali Dyes and Chemicals**

Milan Patel
Partner

❖ **ACTION PLAN TO CONTROL PARTICULATE MATTER**

SR. NO.	SOURCE OF EMISSION OF PARTICULATE MATTER	POLLUTION CONTROL MEASURE
1	FLUE GAS EMISSION FROM BOILER, THERMIC FLUID HEATER & DG SET	Natural gas will be used as fuel in Baby Boiler (100 kg/hour), Steam Boiler (600 kg/hour) and Steam Boiler (1500 kg/hour). Diesel will be used as fuel in D.G. set. Stack with adequate height will be provided to Baby Boiler, Steam Boiler's and DG set to control the Particulate matter. The details of flue gas emission with pollution control measures are mentioned in **Annexure – 1.**
2	PROCESS GAS EMISSION FROM PRODUCTS	There is no process gas emission from the proposed unit.

CONTROL MEASURES TO CONTROL THE PARTICULATE MATTER.

1. All raw material charging will be done in closed system.
2. Solid handling will be done in closed system.
3. Closed system will be connected to dedicated water followed by two stage alkali scrubber.
4. Paved road will be provided in factory premises to control the dusting from vehicle movements.
5. Thick green belt will be provided to the periphery of the plant premises.
6. Ambient air quality monitoring station will be provided within the factory premises. Records of ambient air quality will be maintained.
7. Regular environment monitoring will be carried out.
8. Monitoring of compliance of EC conditions will be submitted with third party audit every year.

❖ **COMPLIANCE OF CERTAIN TERMS & CONDITIONS IN MOM – 21ST EAC MEETING MINUTES 16/07/2020.**

SR. NO.	TERMS & CONDITIONS	COMPLIANCE
1	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	All the environmental protection measures and safeguards proposed will be implemented after execution of the proposed plant.
2	Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.	All the latest modern technology shall be adopted to control the fugitive emission.
3	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.	Zero liquid discharge will be ensured and no waste/treated water will be discharged outside the premises. Total treated will be reused to achieve ZLD.
4	Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.	All the mitigation measures shall be implemented based on outcome of the process safety and risk assessment studies carried out using advanced models.

5	Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Occupational health center shall be provided. Required safety kits/mask and PPEs shall be provided to workers.
6	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.	A full-fledged firefighting system as per the norms shall be provided for protection of possible fire hazards.
7	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.	Safety training shall be imparted to all employees.
8	Total fresh water requirement shall not exceed 25.5 cum/day, proposed to be met from GIDC water supply. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.	The fresh water requirement for the proposed project shall be 25.5 cum/day, which shall be met from GIDC water supply. Permission obtained from GIDC for the water supply. Rain water harvesting system shall be implemented to reduce water requirement.
9	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.	Rain water harvesting system shall be implemented to reduce water requirement. Storm water from the roof top shall be collected in storage tank and shall be used for industrial requirement. Process effluent / any waste water shall not be mixed with storm water.
10	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	CEMS – Continuous Environment Monitoring System will be provided to each stack and CEMS will be connected to GPCB & CPCB server. For ZLD, web camera with night vision and flow meter shall be installed in the channel/drain carrying effluent.
11	Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is	All the guideline mentioned for Solvent management shall be implemented.

	done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	
12	Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.	Distillation residue, spent carbon shall be sent to cement industry through co-processing. ETP sludge, Sulphur sludge, Evaporation salt shall be disposed to common TSDF.
13	The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.	All the guidelines mentioned in condition shall be followed for waste minimization.
14	As proposed green belt of at least 10-20 m width shall be developed mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. As committed by the project proponent, the greenbelt area shall be developed and maintained in an area of 40% out of the total project area.	40% of the total plot area shall be developed as green belt by plantation of at least 10 m width along the plant periphery. Plant species shall be selected in consultation with Forest Department.
15	As committed 4% of the total project cost shall be allocated towards Corporate Environment Responsibility (CER), and shall be utilized for meeting the commitment of issues. The CER plan shall be completed before commissioning /expansion of the project. Preference shall be given to local villagers for employment in the unit.	4% of the total project cost shall be allocated towards Corporate Environment Responsibility (CER).
16	A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental	Environment Management Cell shall be equipped for effective control of Environment Management.

	Management and Monitoring functions.	
17	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	CEMS – Continuous Environment Monitoring System will be provided to each stack and CEMS will be connected to GPCB & CPCB server. For ZLD, web camera with night vision and flow meter shall be installed in the channel/drain carrying effluent.

ANNEXURE – 1 FLUE GAS EMISSION:

The details of flue gas emission are as under.

Sr. No.	Stack attached to	Type of fuel	Fuel Cons.	Stack Ht., m	APCM	Emission Parameter	Unit	Permissible limit
1	Baby boiler (100 kg/hour)	Natural Gas	200 SM3/day	9	Stack with adequate ht.	Particulate Matter	mg/NM3	150
						SO2	ppm	100
						NO_x	ppm	50
2	Steam boiler (600 kg/hour)	Natural Gas	300 SM3/day	11	Stack with adequate ht.	Particulate Matter	mg/NM3	150
						SO2	ppm	100
						NO_x	ppm	50
3	Steam boiler (1500 kg/hour)	Natural Gas	500 SM3/day	11	Stack with adequate ht.	Particulate Matter	mg/NM3	150
						SO2	ppm	100
						NO_x	ppm	50
4	D.G. Set (125 KVA)	Diesel	12Lit/ hr.	9	Stack with adequate ht.	Particulate Matter	mg/NM3	150
						SO2	ppm	100
						NO_x	ppm	50

NOTE:

1. Natural gas will be used as fuel in boiler. Stack with adequate height will be provided to boiler and thermic fluid heater to control the Particulate matter.
2. Diesel will be used in DG set. DG set will be operated in case of power failure only. Stack with adequate height will be provided to DG set to control the Particulate matter.
3. **CEMS – Continuous Environment Monitoring System will be provided to each stack and CEMS will be connected to GPCB & CPCB server.**