



**F. No. IA-J-11011/38/2020-IA-II (I)**  
**Government of India**  
**Ministry of Environment, Forest & Climate Change**  
Impact Assessment Division  
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Indira Paryavaran Bhavan,  
Vayu Wing, 3<sup>rd</sup> Floor, Aliganj,  
JorBagh Road, New Delhi-110 003

**Dated: 15<sup>th</sup> October, 2020**

To,

**M/s Shree Mahakali Dyes and Chemicals**  
GIDC Estate,  
District: Bharuch, Gujarat

**Sub: Setting of Dyes and Dyes Intermediates manufacturing unit of capacity 270 TPM in existing inorganic chemical manufacturing unit (1125 TPM) by M/s Shree Mahakali Dyes and Chemicals, located at Plot No. C1/413, 412, GIDC Estate, Ankleshwar, District Bharuch, Gujarat -Environment Clearance-regarding**

Sir,

This has reference to your online proposal No. IA/GJ/IND2/139258/2018, dated 23<sup>rd</sup> May, 2020 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for Setting of Dyes and Dyes Intermediates manufacturing unit of capacity 270 TPM in existing inorganic chemical manufacturing unit (1125 TPM) by M/s Shree Mahakali Dyes and Chemicals, located at Plot No. C1/413, 412, GIDC Estate, Ankleshwar, District Bharuch, Gujarat.

3. The details of existing and proposed products and capacity are as under: -

S. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			End-use of the products
			Existing	Proposed	Total	
1	Rubber Product	--	125	-125	0	--
2	Ammonium Sulphate	7783-20-2	1000	0	1000	Dyes Industries
3	Potassium Sulphate	7778-80-5				Dyes Industries
4	Sodium Nitrate	7631-99-4				Dyes Industries
5	Potassium Chloride	7447-40-7				Dyes Industries

6	2,4 Dinitro Aniline	97-02-9	--	50	50	Pigment orange -5
7	2-Ethyl Pyridone	28141-13-1	--	15	15	Yellow-4G
8	Butyl Pyridone	39108-47-9				Yellow-11G
9	Methyl Pyridone	--				Yellow-114
10	N-Cyanoethyl Aniline	1075-76-9	--	50	50	N-cyano ethyl N- acetoxy ethyl aniline
11	Salicylic Acid	69-72-7	--	5	5	Brown MR
12	M-1 (N,N -Di[2-Hydroxyethyl]-M-Chloro Aniline)	92-00-2	--	50	50	Brown-4
13	M-2 (N,N-Di[2-Hydroxyethyl]M-Toludine)	91-99-6				Red-17
14	M-3 (N,N-Di Hydroxy ethyl Meta Amino Acetanilide (52.79%))	--				N,N Diacetoxy ethyl Meta Amino Acetanilide
15	M - 3 A (N,N Di 2-Acetoxy Ethyl Meta Amino Acetanilide)	27059-08-1				Red-167
16	M-4 (N,N-Di Hydroxy Ethyl Aniline)	120-07-0				Paint & wax stripper
17	M-5 (3, N, N-Di Acetoxy Ethyl Amino 4-Methoxy Acetanilide)	23128-51-0				Blue-79
18	M-5A (3 N,N-Di Hydroxy Ethyl Amino 4- Methoxy Acetanilide)	24530-67-4				3,NNDiacetoxy ethyl Amino 4-Methoxy Acetanilide
19	M-6 (3,N[2-Cyanoethyl]-N-[2-Acetoxyethyl]-Amino-4- Methoxy Acetanilide)	--				Navy Blue
20	M-7A (N-Cyano - Ethyl N-Hydroxy Ethyl Aniline)	92-64-8				N-cyano ethyl N- acetoxy ethyl aniline

21	M-8 (N-Ethyl N-Cyanoethyl Aniline)	148-87-8				Orange-28
22	M-10 (3,N,N-Diethyl Amino 4-Methoxy Acetanilide)	19433-93-3				Blue-291
23	M-14 (N- [2 Acetoxyethyl] -N- [2-Cyanoethyl]-M-Amino Acetanilide)	--				Red-202
24	M-15 (N-Ethyl - N - [2-Hydroxyethyl] Aniline)	92-50-2				Red-15 Red- 1
25	M-22 (N, N- BIS Cyanoethyl Aniline)	1555-66-4				Orange -44
26	M-23 (N - Ethyl - N - Cyanoethyl Meta Toluidine)	148-69-6				Yellow-163
27	M-23A (N,N - Di -[2-Cyanoethyl]-M-Toluidine)	--				N,N Di Cyano Ethyl Meta Toluidine
28	M-24 (3,N,N-Diallyl-Amino - 4 - Methoxy- Acetanilide)	51868-45-2				Blue - 291
29	M-38 (N-Cyano Ethyl N-Benzyl Aniline )	--				Orange -288
30	M-38A (N - Cyano Ethyl M- Toluidine)	27618-25-3				N-Cyano Ethyl N-benzyl Aniline
31	M-2A (N,N Di Acetoxyethyl Meta Toluidine)	21615-36-1				N,N Diacetoxy Ethyl Meta Toluidine
32	CEEMA (N Cyano Ethyl Meta Amino Acetanilide)	21678-63-7				N-cyano Ethyl N-Acetoxy Ethyl Meta Amino Acetanilide
33	DILUTING AGENT 007 (Carboxy methylation of Guar Gum) (AMCOL 100)	--	--	100	100	Oil field drilling
Total			1125	(270-125) = 145	1270	

4. The land area available for the project is 1407.9 sqm. Industry will develop greenbelt in an area of 40% i.e. 564 sqm out of total area of the project. The estimated project cost is Rs.2.98 Crores including existing investment of Rs.0.98 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.0.78 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.79 Crores per annum. Total Employment will be 30 persons.

5. Total water requirement is 41.0 m<sup>3</sup>/day of which fresh water requirement of 25.5 m<sup>3</sup>/day will be met from GIDC Water Supply Authority. Total wastewater generation will be 19.0 KLD will be treated in in-house stripper, MEE, ATFD and 15.5 KLD MEE Condensate will be re-used within premises for Boiler & Cooling purpose.

6. Power requirement for proposed project will be 120 KVA and will be met from DGVCL. 1 No. DG set of 1250 KVA capacity shall be used as standby during power failure. Stack (height 9 m) will be provided as per CPCB norms to the proposed DG set of 125 KVA which will be used as standby during power failure. Existing unit has 0.1 TPH Wood fired boiler but unit will use Natural gas as fuel in proposed expansion scenario. Additionally, 0.6 TPH Natural Gas fired boiler and 1.5 TPH Natural Gas fired boiler will be installed. Adequate Stack Height with a stack of height of 11 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm<sup>3</sup>) respectively

7. All Synthetic Organic Chemicals Industry (Dyes & Dye Intermediates; Bulk Drugs and Intermediates Excluding Drug Formulations; Synthetic Rubbers; Basic Organic Chemicals, Other Synthetic Organic Chemicals and Chemical Intermediates) are listed in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'B' to be appraised at State level. However, being the project is located inside the critically polluted area, the project appraised at Central level in the Ministry.

8. The ToR was granted by the SEIAA vide letter SEIAA/GUJ/TOR/5(f)/553/2018; dated 31st May, 2018. Public hearing is exempted as per para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. The Committee deliberated and noted that Existing unit is inorganic chemical manufacturing unit and for the same, prior EC is not required, so certification of monitoring report of EC report is not applicable.

9. The proposal was considered by the EAC in its 21<sup>st</sup> meeting held on 14-16 July, 2020 in the Ministry, wherein the project proponent and their consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and recommended the project for grant of environmental clearance. Further, PP vide letter dated 25.08.2020 has submitted the requisite information.

10. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

11. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for



all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Committee also deliberated the compliances of the Ministry's OM dated 31.10.2019 (Critically Polluted Areas) and accordingly stipulated the conditions. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

**12.** The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

**13.** Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for **Setting of Dyes and Dyes Intermediates manufacturing unit of capacity 270 TPM in existing inorganic chemical manufacturing unit (1125 TPM) by M/s Shree Mahakali Dyes and Chemicals, located at Plot No. C1/413, 412, GIDC Estate, Ankleshwar, District Bharuch, Gujarat,** under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

**A: Specific Condition**

- (i). The SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24<sup>th</sup> October, 2019 and forwarded by Central Pollution Control Board vide letter dated 25<sup>th</sup> October, 2019 to the SPCB's, while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.
- (ii). 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.
- (iii). 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.
- (iv). 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.
- (v). 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.
- (vi). 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.

- (vii). 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.
- (viii). 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.
- (ix). 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.
- (x). 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.
- (xi). 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.
- (xii). 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 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.
- (xiii). 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.
- (xiv). 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.
- (xv). 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.
- (xvi). 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.
- (xvii). 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 Management and Monitoring functions.

- (xviii). 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.

### **13.1: General Condition:**

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iii) The overall noise levels in and around the plant 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 levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as



prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

- (ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

**14.** The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

**15.** Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

**16.** Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**17.** The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

**18.** This issues with the approval of the competent authority.

**(Dr. R. B. Lal)**  
**Scientist 'E'/Additional Director**

(डॉ. आर. बी. लाल)  
(Dr. R. B. LAL)  
वैज्ञानिक 'ई'/Scientist 'E'  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय  
Min. of Environment, Forest and Climate Change  
भारत सरकार, नई दिल्ली  
Govt. of India, New Delhi

**Copy to:-**

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
2. The Chief Conservator of Forests (Western Zone), Ministry of Environment & Forests,



Regional Office, E-5, Arera Colony, Link Road -3, Bhopal - 462 016 (M P)

3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Gujarat State Pollution Control Board, ParyavaranBhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira ParyavaranBhavan, Zorbagh road, New Delhi
6. Guard File/Monitoring File/Parivesh Portal/Record File

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