

F. No. IA-J-11011/253/2015-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA- II Section)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3

Dated: 31st May, 2018

To

M/s Bharat Rasayan Ltd
2 KM Stone, Madina Mokhra Road,
Village Mokhra, Tehsil Meham,
District Rohtak (Haryana) – 124 022

Sub: Expansion of Pesticides Technical Manufacturing Unit at 2 km Stone, Madina Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana) by M/s Bharat Rasayan Ltd - Environmental Clearance - reg.

Sir,

This has reference to your proposal No. IA/HR/IND2/31067/2015 dated 8th September, 2017 submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of Pesticides Technical manufacturing unit from the present capacity of 2940 TPA to 4260 TPA by M/s Bharat Rasayan Ltd at 2 km Stone, Madina Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana).
3. The existing land area is 44517 sqm, no additional land will be required for the proposed expansion. Industry will develop greenbelt in an area of 16068.65 sqm out of total area of the project.
4. The estimated project cost is Rs 150 lakhs and the existing investment is Rs 2900 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 200 Lakhs and the recurring cost (operation and maintenance) will be about Rs 234 Lakhs per annum. The project will lead to employment for 230 persons as direct & 275 person indirect after expansion.
5. There are no National Parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Mokra minor is flowing at 1.80 km in NW direction.
6. The details of products are as under:-

S. No	Particulars	Existing Capacity (TPA)	Proposed Capacity (TPA)
Insecticide			
1	Alphacypermethrin Technical	---	100
2	Bifenthrin Technical	---	120
3	Cypermethrin Technical	600	350
4	Fenvalerate Tech.	900	300
5	Fipronil Tech.	---	100
6	Lambda Cyhalothrin Tech.	---	300
7	Permethrin Tech.	---	100

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8	Thiamethoxam Tech.	---	300
9	Diafenthiuron Tech.	---	150
Herbicide			
1	Clodinafop Tech.	---	100
2	Propanil Tech.	---	50
3	Pyrazosulfuron Tech.	---	20
4	Imiazethapyre Tech.	---	25
5	Safener	---	30
Fungicides			
1	Tebuconazole Tech.	---	50
2	Diafenconazole Tech.	---	50
3	Myclobutanil	---	15
Intermediate			
1	Methaphenoxybenzaldehyde	960	1800
2	Parachlorophenyl Isopropyl Acetic Acid	---	200
3	Parachlorobenzylcyanide	480	100
Total		2940	4260

7. Total water requirement is estimated to be 234.719 cum/day, to be met from bore well. Effluent of 49.61 KLD from process and 35 KLD from domestic shall be treated through MEE/ETP/STP. There will be no discharge of treated/untreated waste water from the unit, and thus conforming to Zero Liquid Discharge.

Power requirement after expansion will be 1720 kVA including existing 1450 kVA, to be met from State Electricity Board (UHBVNL). Existing unit has 2 DG sets of 1250 kVA & 275 kVA capacity, additionally DG set of 275 kVA will be used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the DG sets.

Existing unit has 6 TPH coal fired, 3 TPH & 2 TPH LDO fired boiler and 2 LDO fired Thermic fluid heater of 2 Lac Kcal each. Additionally, 2 TPH coal fired boiler or replacement of existing 6 TPH boiler by 8 TPH boiler and thermic fluid heater of 6 Lac Kcal will be installed. Multi cyclone separator/ bag filter/scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

8. The project/activity is covered under category A of item 5(b) 'Pesticide industry and pesticide specific intermediates' of Schedule of Environmental Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

9. The Terms of Reference (ToR) for the project was granted on 2nd August, 2016 and public hearing was conducted by the Haryana State Pollution Control Board on 15th June, 2017.

10. The proposal for environmental clearance was considered by the EAC (Industry-2) in its meetings held on 12-13 October, 2017, 22-24 January, 2018 and 27-28 March, 2018 in the Ministry. The project proponent and their consultant M/s EQMS India Pvt Ltd have presented the EIA/EMP report as per the ToR. The committee found the EIA/EMP report satisfactory and in consonance with the ToR, and recommended the proposal for environmental clearance with certain conditions.



11. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for expansion of **Pesticides Technical Manufacturing Unit** from 2940 TPA to 4260 TPA by M/s Bharat Rasayan Ltd at 2 km Stone, Madina Mokhra Road, Village Mokhra, Tehsil Meham, District Rohtak (Haryana), under the provisions of EIA Notification, 2006 and the amendments made therein, subject to the compliance of terms and conditions, as under:-

- (i) Total production of pesticides shall include manufacturing at least 25% of bio-pesticides.
- (ii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- (vi) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vii) 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) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (viii) Total fresh water requirement shall not exceed 234.719 cum/day to be met from borewell. Prior permission in this regard shall be obtained from the concerned regulatory authority.



- (ix) Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- (x) The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (xi) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiii) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- (xiv) Fly ash should 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 season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- (xv) 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.
- (xvi) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, 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.
- (xvii) All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
- (xviii) At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xix) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.



- (xx) 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.
- (xxi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) 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 online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

11.1. The grant of environmental clearance is subject to compliance of other general conditions, as under:-

- (i) The project authorities shall adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- (v) 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- (viii) The company shall also 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.


- (ix) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.
- (x) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (xi) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) The environmental statement for each financial year ending 31st 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.
- (xvi) 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 at <http://moef.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.
- (xvii) 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.



12. The Ministry may revoke or suspend the clearance, at subsequent stages, if implementation of any of the above conditions is not satisfactory.


13. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

14. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


31/5/2018
(S. K. Srivastava)
Scientist E

Copy to:-

1. The Additional PCCF (C), Ministry of Environment, Forest and Climate Change, Regional Office (NZ), Bays No. 24-25, Sector 31 A, Dakshin Marg, Chandigarh - 30
2. The Principal Secretary, Department of Environment, Government of Haryana, SCO 1-2-3, Sector 17 (D), 2nd Floor, Chandigarh
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula (Haryana) -134 109
5. Guard File/Monitoring File/Website/Record File


31/5/2018
(S. K. Srivastava)
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