

EXECUTIVE SUMMARY

Introduction

M/s. Vadivarhe Speciality Chemicals Ltd. (VSCL) is incorporated in the year 2007 to manufacture Bulk Drug & Intermediates. It has been incorporated with main object to manufacture Bulk Drugs & Intermediates which have a good export potential. The ever-increasing demand for the products in India & Abroad has prompted the promoters to undertake manufacturing of some selected Bulk Drugs & Intermediates. M/s. Vadivarhe Speciality Chemicals Ltd. is a team of performing range of aptitude, talented and affirmative professionals, when it comes to quality and excellence. The proposed Expansion production capacity is 22.01815 MT/M.

Project proponent:

M/s. Vadivarhe Speciality Chemicals Limited is proposed by Mr. Vasant Jagtap, Director of the Company, having experience in Engineering and maintenance department for more than 35 years and Mr. Pramod V. Gajare, GM R & D and Production, of the Company, having 30 years experience in Manufacturing and R & D in Intermediates and Bulk Drugs.

Type of Project:

The project is neither an interlinked project nor an interdependent project. The proposed project is an expansion of manufacturing capacity as well as addition of new products to the existing manufacturing unit of Bulk Drugs & Intermediates. The project falls under Category 'A', Section 5(f) "Synthetic organic chemicals industry" of EIA notification 2006 and subsequent amendments.

Project cost:

Total Project cost for proposed project activity is Rs. 3 crores.

Location of the Project Site:

The proposed project is located at Gut No.204, Nashik - Mumbai highway, A/P-Vadivarhe, Tal-Igatpuri, Dist-Nashik-422403, Maharashtra.

The site is well connected by road and rail network. The nearest road is Nashik –Mumbai Highway (0.15 Km, E), Railway station is Igatpuri Railway Station (20.87 Km, SW) and nearest airport is Nashik Airport (30 Km, NE).

Nature and Size of the project:

M/s. Vadivarhe Speciality Chemicals Ltd. has proposed for expansion of existing products as well as addition of new products. The existing production capacity of the plant is 12.85 MT/M and proposed production capacity will be 22.018 MT/M. Thus the total production capacity after expansion and addition of new products will be 34.868 MT/M.

Water Requirement:

The total fresh water requirement during the operation phase for the existing facility is 26.41 KLD and proposed fresh water requirement will be 11.51 KLD. Total Water requirement of the project after expansion will be 54.41 KLD, Out of which, 37.92 KLD will be fresh water, while remaining 16.49 KLD will be recycled water. Main source of water supply will meet through tanker water supply.

Waste water generation & Management:

Total Effluent generation after expansion will be 24.71 KLD [6.51 KLD (existing) + 18.20 KLD (proposed)], which after treatment in ETP followed by RO and treated water will be reused for flushing, gardening, washing and cooling Tower make-up. Domestic waste water will also be treated in existing ETP.

Electricity Requirement:

The Total power requirement will be 300 KVA. The main source of power is MSEB. The back-up will be provided from DG Sets having capacity of 250 KVA in case of power failure. Solar Electricity Generation Plant is installed at Factory premises for generating between 886 to 1063 KVA (unit) per day and utilized for production activity. Therefore no additional electricity will be required for proposed project.

Fuel Requirement & Stack details:

Diesel Oil will be used as a fuel for DG set and Boiler. Scrubber is installed for process reactors. Stack height of Boiler is 20 m and scrubber will be 24 m. Solar Water Heater Plant is installed at Factory premises for generating 3000 liter per day and utilized for production activity saving 120 to 180 liters of LDO per day. Therefore no additional fuel will be required for proposed project. In rainy season / at night online heater is used to enhance the temperature of water as per requirement.

Manpower Requirement:

There are 120 peoples are working in existing plant and around 30 peoples will be required for the proposed expansion project. Thus, total manpower will be 150 workers.

Solid & hazardous waste management:

Hazardous waste like Discarded drum / Container, Used / Spent oil, Distillation residue, Discarded product material (R&D) etc. will be generated and sold or disposed to MPCB authorized vendor / recycler and / or will be disposed at CHWTSDF.

Green Belt Development:

Total 4600 m² area (36.8 %) has been already provided in existing premises. Suitable local 387 numbers of plant of variety of species are planted with adequate spacing.

Description of the Environment

Study area

The baseline quality of various components of the environment, viz. air, noise, water, land, biology, meteorological and socio-economic is assessed within the impact zone of about 10 km around the proposed site. The present report presents the data collected during the sampling period of three months during winter season from January'17 and March'17.

Climate of the study area

The climate of the region is classified as tropical wet and dry climate. The annual maximum temperature is 37.6 in the month of May and minimum temperature is 10 °C in the month of January. The average annual rainfall for the Igatpuri as a whole is 700 mm. Most of the rainfall is received from June to September.

Seismicity

According to the seismic-zoning map of India, the project area falls in Zone III-Moderate Risk zone of seismicity.

Air Environment

AAQM was carried out in 8 locations on 24 hourly average basis as per guidelines of CPCB and NAAQS within 10 km radius of the study area. PM₁₀ and PM_{2.5} was found in the range of 64.26 to 86.69 µg/m³ and 29.56 to 48.18 µg/m³ respectively. SO₂ found in the range of 5.78 to 9.45 µg/m³ and NO_x: 12.21 to 25.14 µg/m³. The PM₁₀, PM_{2.5}, SO₂ & NO_x parameters are found within the permissible limit as per NAAQS level. Other parameters like VOCs, Heavy metals, Benzene etc. were found within permissible limit.

Noise Environment

Noise can be defined as an unwanted sound. A total of 8 locations were identified for ambient noise monitoring in the study area. The daytime varied from 47.8 dB(A) to 64 dB(A) and night time noise

varied of 38.6 dB(A) to 54.6 dB(A). Both daytime noise and night time noise were found within the limit.

Water Environment

In order to establish the baseline water quality, 8 ground water and 8 surface water samples were collected and analyzed in the study area. The analysis result for ground water samples were within drinking water limit as per IS 10500: 2012. The surface water quality is within class D as per classification of water quality criteria.

Soil Quality

Soil samples were collected from 8 locations in the study area and analyzed for physico-Chemicals characteristics. Soil quality was found to be normal.

Land Use/Land Cover of the Study Area

Land use pattern of the study area covering 10 km radius includes Barren Hilly Terrain, Pond / Lake, Crop Land, Barren Land, Land with Scrub, Fallow Land, Settlement, Industry, Query and Hilly Forest Terrain Land. Which comprises of Industrial area 663.36 ha and Agriculture land 10242.66 ha.

Biological Environment

Biological environment includes flora and fauna including aquatic species found in the study area of 10 km radius.

Flora: The most common grasses Aristida species, Brachiara species, Digitaria species, Heteropogon species, Themeda species, Sporobolus species, Cenchrus barbatus, Lasiurushirsutus and Cymbopogonjwarancusa are found to grow in this region.

Fauna: The various animal species in the study area are found, detailed study is given in Baseline Chapter-3.

Socio-economic Environment:

Socio-economic data were collected from within 10 km radius of the Project site. These include 30 villages as per census of India 2011. Total population was 60847, out of which male population is 31035 and female population is 29812 with Sex ratio is 964.43. The total no. of household was 10993. The total literate population was 40502, male literacy was 23002 and female literacy was 17500 and literacy rate was 67%.

Anticipated Environmental Impacts & Mitigation Measures

Air Environment

- In order to estimate the ground level concentrations due to the emission from the proposed project, AERMOD View – Lake Environmental Software has been employed.
- These predicted ground level concentrations when added to baseline scenario, the overall scenario levels of PM₁₀, SO₂, NO_x, are well within the permissible limits specified by CPCB.
- VOCs and other NAAQS parameters are observed within below detectable limit, the detail explanation is mentioned in Baseline chapter-3.
- Adequate mitigation measures have been already installed to control air pollution.

Noise Environment

The major noise source includes various machines, pumps, motors, DG sets and vehicular traffic. The noise levels were below the stipulated standards of CPCB for residential and industrial areas. Technical and administrative measures are already implemented to minimize the noise levels which include periodic maintenance of machinery, mandatory use of personal hearing protection equipment with operable mufflers, oiling and lubrication, noise suppression measures such as enclosures, buffers, greenbelt development etc.

Water Environment

VSCL is intended to achieve a Zero Liquid Discharge. The total fresh water requirement during the operation phase for the existing facility is 26.41 KLD and proposed fresh water requirement will be 11.51 KLD. Total Water requirement of the project after expansion will be 54.41 KLD, Out of which, 37.92 KLD will be fresh water, while remaining 16.49 KLD will be recycled water. Main source of water supply will meet through tanker water supply. Total Effluent generation after expansion will be 24.71 KLD [6.51 KLD (existing) + 18.20 KLD (proposed)], which after treatment in ETP followed by RO and treated water will be reused for flushing, gardening, washing and cooling Tower make-up. Domestic waste water will also be treated in existing ETP.

Land Environment

A total of 4600 m² area (36.8%) has been earmarked for the green area development. There will be little impact envisaged due to the operation of the plant. There is no discharge of solid as well as liquid effluent in open land. The green area development and tree plantation will help in enhancing the aesthetics of the plant. Thus no adverse impact is envisaged on land environment.

Biological Environment

Analysis of abiotic factors reveals that ambient air and fresh water quality will remain practically unaffected. Hence no impact on flora and fauna is envisaged. Moreover there are no reserve forest and protected areas within 10 km radius.

Socio-economic Environment

The proposed expansion project is expected to provide direct and indirect employment opportunity to skilled and unskilled workers. The project will contribute to the socio-economic development of the area at the local level in turn reducing migration for employment. Hence, the proposed project will have positive impact on the socio-economic environment.

Environmental Monitoring Program

Environmental Monitoring Program is designed for operation phase of the project for monitoring of various environmental parameters like air, water, noise, soil and ecology etc.

Environmental Management Plan

The EMP presents the project specific guidelines on:

- Environmental management strategies
- Specialized engineering construction procedures in relation to environmental guidelines of the country
- Spill prevention and control
- Management of wastes and hazardous Chemicals
- Air, water and soil quality protection
- Noise control
- Soil erosion control and slope stabilization
- Vegetation, wildlife and habitat protection
- Socio-economic and welfare considerations
- Risk and disaster management plan
- To prepare a checklist for statutory compliance
- Budget allocation for environment management plan.

Risk Assessment

The Risk assessment study has been conducted for all the operations involved in the project. The study considers all the hazards associated with all the activities which will be involved. The hazards leading to possible consequences are summarised in the chapter-7 and the risk mitigation measures and intended safeguards are specifically mentioned in the chapter-7 in the EIA report. The risk to personnel, process / operation is considered in the study.

Disaster Management Plan

Disaster Management Plan is prepared for identification of various hazards addressed qualitatively and included onsite and off-site emergency plan. A Disaster Management Plan is prepared to meet any grave emergency which can occur due to Natural Disasters such as Floods, Earthquakes, or due to Man-Made Disasters such as Acts of war and Fires, Power failures. Details of risk assessment and disaster management plan are given in the EIA report.

Project Benefits

Growth in the industrial sector creates new opportunities for employment and can also help diversify the economy.

CSR Activities

Existing: VSCL has initiated various CSR activities for the development and care of the area and people. The various CSR activities undertaken by VSCL include.

- Blankets distributed at Local Villages of Igatpuri and Trymbakeshwar.
- Medical Camp arranged at Wadivarhe Village Gram panchayat School.
- Compound Wall constructed for Wadivarhe Gram panchayat School.
- School uniforms, notebooks and scholarship will be provided to poor students.
- Organized Health check up camp for School children.
- Water Tank and Dust Bins were provided at Kumbhmela Nashik
- Tree Plantation on both side of Village Road from Highway to Wadivarhe Village.

Proposed: VSCL has also planned various CSR activities for future which include.

- Installation of High mast at Wadivarhe Village.
- Funds will be provided to arrange extracurricular activities for nearby schools.
- Plants will be maintained at Roads passing nearby.



EIA REPORT

FOR PROPOSED EXPANSION OF MANUFACTURING OF BULK DRUG & INTERMEDIATES



- Regular medical camps and eye-camps in the surrounding villages to provide treatment with free supply of medicines and highlight the aspects of hygiene and good health.

Conclusion:

- The project proponent will follow all the statutory norms and guidelines as per EPA, 1986 to safeguard environment.
- Waste water generated from the proposed project will be treated in to ETP followed by RO.
- Ambient Air Quality of the project site will be within the permissible limit as prescribed by National Ambient Air Quality Standards.
- Noise is expected to be on higher side during Operational phase noise shall be within industrial premises which will not exceed 75 dB(A).
- The project will generate employment opportunities during operational stage. The standard of living of local people due to employment is likely to be better, so we may say that it is positive socio-economic impact. The region will get economic boost.
- Overall the project will have positive impact for socio-economic and cultural development.