

## EXECUTIVE SUMMARY

### 1.0 Project Name and location

The Proposed Project i.e. **M/s Rana Sugar Limited (Distillery Division)** is proposing to increase the overall capacity of existing Molasses/Grain based Distillery of capacity at Village Lauhka, Tehsil & District Tarn Taran, Punjab.

### 2.0 Products and capacities

Existing plant is proposing to increase the overall capacity of existing Molasses/Grain based Distillery from 60 KLPD to 150 KLPD & (60KLD to 90KLD through modernization and 60KLD *through* new plant.

### 3.1 Land Area

The industry is having 40 acres of land. No additional land will be required for expansion.

### 3.2 Raw Material Requirement

The raw material requirement of the project will be as under:

#### Raw Material Requirement

Description	Existing	Addition With modification	Total After Modification	Addition with New Plant	Total (Modification + With new Plant)
Molasses	270(TPD)	140(TPD)	410(TPD)	270 (TPD)	680 (TPD)
Grain	135(TPD)	65(TPD)	200(TPD)	135(TPD)	335(TPD)
Rice Husk	95(TPD)	Nil	95(TPD)	100(TPD)	195(TPD)

### 3.3 Water Requirement

The total fresh water requirement for 150 KLPD Distillery plant will be 1128 KL/day Permission from CGWA has been obtained for the extraction of Ground water for existing plant and proposed water requirement will be met through surface water. Details of water requirement for expansion:-

#### Water Requirement

Description	Existing	Addition With modification	Total After Modification	Addition with New Plant	Total (Modification + With new Plant)
Water Requirement	588(KLD)	180KLD	768(KLD)	360(KLD)	1128(KLD)

### **3.4 Power Requirement**

- Total Power requirement of the units after expansion will be 4.4 MW.
- The existing co-gen Power Plant is 1.6 MW which will be replaced with 2.4 MW highly efficient turbines for the modernization / expansion plant. There will be another 2.0 MW turbine for 60 KLD plant.
- Two No. 500 KVA DG sets are proposed as standby in case of power supply failure.

### **3.5 Manpower Requirement**

The total manpower required for the proposed expansion will be 175 persons which include all Categories of unskilled, semiskilled, skilled personnel and contract labour.

### **4.0 Description of Mitigation Measures**

To minimize & control the Flue Gas emission from the stack attached to Boiler & DG Set, M/s Rana Sugar Ltd, has already installed acoustic enclosure for Turbine and D.G. sets. Used Oil from DG set is being sold to the authorized Recyclers. Septic Tank is provided for treatment of domestic effluent. Treated effluent is used for plantation in the premises. The industry is regularly operating and maintaining its equipments and ensuring that the emissions are adequately collected and concentration of air pollutants in its emissions conforms to the emission standards laid down by the board.

### **5.0 Cost Details**

Capital cost of the project existing project is **Rs. 75 crore** and total cost for EMP is Rs. 10.0 Crores and recurring cost is Rs. 80 Lakhs. The total cost of project after expansion will be Rs.145 Crores. The proposed expansion will be done within two year after granting of Environment Clearance.

### **6.0 Site Details**

M/S Rana Sugar Ltd is situated at Village- Lauhka, Tehsil & District- Tarn Taran, Punjab, having its global coordinates as Latitude 31°20'13.71"N & Longitude 74°53'57.13"E. The project is located at Village- Lauhka. TarnTaran is the nearest city and railway station. Nearest airport is Amritsar which is at 42 km from site. No National Parks/ Wildlife Sanctuaries/ Biosphere Reserves/ Reserved Forests exist within 5 km radius of project site. Nearby water

body is Beas & Wet land Harike which is about 20 KM from the unit.

## **7.0 Baseline Environmental Data and their impacts**

Various Environmental factors as existing in the study area which are liable to be affected by the activities have been assessed both quantitatively and qualitatively. Baseline environmental data generation of study area was carried out during the period October, November & December 2017.

### **8.0 Ambient Air Quality**

The PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub> and CO levels were monitored at eight locations in the study area for two months (Oct -Dec, 2017). The P98 levels of criteria pollutants are as follows: PM<sub>2.5</sub> is 41.40 µg/m<sup>3</sup>, PM<sub>10</sub> is 84.82µg/m<sup>3</sup>, SO<sub>2</sub> is 13.30µg/m<sup>3</sup>, NO<sub>2</sub> is 19.59µg/m<sup>3</sup> and CO is 0.60 mg/ m<sup>3</sup>. The baseline air quality levels are within the National Ambient Air Quality Standards prescribed for residential and industrial area (**Standards are 60, 100, 80 and 80µg/m<sup>3</sup> for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>2</sub> respectively**). Proposed expansion will have less impact than existing one.

### **8.1 Water Quality**

Eight groundwater samples and one surface water sample were collected from the study area for chemical and biological analysis. The groundwater qualities of the study area are satisfactory. No metallic or bacterial contamination was found in the water quality. But bacterial contamination is found in surface water.

### **8.2 Noise Environment**

Ambient noise levels were monitored at 8 locations in the study area. . Noise levels in the study area vary from 49.7 dB (A) to 53.30 dB (A) in day time and 40.60 dB (A) to 44.10 dB (A). The highest levels were observed at Project Site. The baseline noise levels are well within the National Standards. Proposed expansion will have less impact than existing one due to better pollution control facility.

### **8.3 Soil Quality**

Two soil samples were collected from the study area and analyzed. The texture of soil is sandy loam. The organic matter, nitrogen, potassium and phosphorus content of the soil are moderate. The pH of all the soil samples is within the acceptable range. No impact on soil will be there for proposed plant.

#### **8.4 Ecological environment**

Ecological data has been collected through secondary sources and by site visits. The tree species mainly dominated by are kikar, Jamun, Peepal and Mango etc are the dominant plant species of the study area. Mongoose, porcupine, jungle cat, cobra, krait, snakes, hare, pigeon and variety of birds are the common animals of the study area. No endangered species of plants and animals are found in the study area, so no impact on ecological environment.

#### **8.5 Sensitive Ecosystem:**

Within 10 km distance of the project site, no plant or animal species were found to be on the endangered list. No ecologically sensitive area like biosphere reserve, tiger reserve, and elephant reserve, migratory corridors of wild elephant, wetland, national park and wildlife sanctuary are present within 10 km distance of the project site. There is no Reserve and Protected Forests present around the project site of 10 km. Agriculture and industrial workers dominate the occupation structure of the study area.

#### **8.6 Socioeconomic Condition:**

Socioeconomic status has been studied through secondary sources and by site visits. The social requirements identified such as Drinking water requirement, Promotion of Educational institutions and Medical facilities to the villagers (especially Senior Citizens and infants or pregnant ladies). Community centers, recreation facilities etc will also be developed as part of social responsibility.

#### **9.0 Possible Hazards & Risks from Distillery Industries:**

The various process operations, which are having potentially high risk to human exposure and which have high levels of attention area identified.

#### **10.0 CSR Plan**

Proposed project will result in further growth of the surrounding areas by increased direct and indirect employment opportunities in the region including ancillary development and supporting infrastructure. Special emphasis on Financial and Social benefits is being given to the local people. Development of social amenities is in the form of medical facilities, education to underprivileged and creation of self help groups.

The company has earmarked Rs. 1.42 lacks towards the Corporate Social Responsibility (CSR) Activities.

### **11.0 Corporate Responsibility for Environment Protection**

The distillery of M/S Rana sugar Ltd is in operation since 2005. All the responsibilities as laid down in CREP, 2003 has already been addressed in the existing facility and the latest responsibilities for the proposed expansion/revamp shall be fulfilled.

### **12.0 Environment Monitoring Plan**

Regular monitoring of all significant environmental parameters is essential to check the compliance status vis-à-vis the environmental laws and regulation. The frequency of the monitoring will be as follows:

- The ambient Air quality shall be monitored at project site and two upward and downstream locations once every quarter for PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>& SO<sub>2</sub>, and CO levels during the Construction Phase and Operational Phase.
- The Ambient Noise Levels, Water Quality, Effluent etc. shall also be monitored once every six months or as per EC conditions.