

Government of Maharashtra

SEAC-2012/CR-53/TC-2
Environment department
Room No. 217, 2nd floor,
Mantralaya Annexe,
Mumbai- 400 032.
Dated: 11th December, 2014

To,
M/s. Shree Tatyasaheb Kore Warana
Sahakari Sakhar Karkhana Ltd.
At village Warananagar, Kodoli
Tal Panhala, Dist Kolhapur

Subject: Environment clearance to M/s. Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. at Gat no. 1101/1, 1102, 1103, 1114, 1116 & 1162 Warananagar, Kodoli Tal Panhala, Dist Kolhapur.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification, 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 82nd meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 76th meeting.

2. It is noted that the proposal is for grant of Environmental Clearance to M/s. Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. at Gat no. 1101/1, 1102, 1103, 1114, 1116 & 1162 Warananagar, Kodoli Tal Panhala, Dist Kolhapur. SEAC-I considered the project under screening category 5(j), B1 of EIA Notification 2006.

Brief Information of the project submitted by Project Proponent is as:

Name of the Project	Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. Gat No.1101/1,1102,1103,1114,1116 & 1162, A/P.: Warananagar, Tal.: Panhala, Dist.: Kolhapur (Maharashtra)			
Project Proponent	Shri V. S. Chavan, (Managing Director)			
Consultant	M/s. Equinox Environments (I) Pvt. Ltd.			
New Project / Expansion in existing project / Modernization/Diversi- fication in exiting project	'Capacity Utilization' of existing sugar factory for enhancement of production capacity from 5000 TCD to 10000 TCD and implementation of a new 500 TPD sugar refinery plant			
Activity schedule in the EIA Notification	Item No.: 5(j) as per the provision of "EIA Notification No. S.O. 1533 (E)" dated 14.09.2006; amended on December 01, 2009, the proposed project comes under Category 'B'.			
Area Details	Description	Existing	Proposed	Total

	Total Indus. Area	19.14 Ha	1.53 Ha	20.67 Ha
	Total Built - up Area	8.54 Ha	0.19 Ha	8.73 Ha
	Area Under Roads	5.3 Ha	0.46	5.76 Ha
	Open Space	5.3 Ha	0.88	6.18 Ha
	Green Belt	18.94 Ha	4.0 Ha	22.94

TOR Issued During 40th meeting of SEAC directed to conduct Public Hearing.

Estimated capital cost of the Project (including cost for land, building, plant and machinery separately)	Sugar Factory	Rs. 162.74 Cr.
	Sugar Refinery	Rs. 43.00 Cr.
	Total	Rs. 205.74 Cr.

Location details of the project	Latitude	16°51'51.99 N
	Longitude	74°11'42.60 E
	Location	Warnanagar.
	Elevation above Mean Sea Level (meters)	600 m

Raw materials (including process chemicals, catalysts, & additives).

Industrial unit	List of raw materials to be used	Quantity (MT/ Month)	Source of materials
Proposed Capacity Utilisation of Sugar Unit (5000 to 10,000 TCD)	Sugarcane	1,50,000	Nearby farms
	Sulphur	60	From Out Side parties
	Lime	1	
	Oil & Grease	10	
Sugar Refinery (500 TPD)	Raw Sugar	15,000	From Own Sugar Factory

Production details

Industrial unit	Name of Products, By products and Intermediate Products	Quantity MT/M	
		Existing	Expansion
Sugar Unit	Sugar	14000 MT/M	22,000
	By Product		
	Molasses	4500 MT/M	6,000
	Bagasse	33,600 MT/M	62,800
	Press Mud	4500 MT/M	5,125
Sugar Refinery (500 TPD)	Refined Sugar	--	15,000
	By Product		
	Refined Molasses		150

Rain Water Harvesting (RWH)	Rain water of 17,800 M ³ /Yr from roof top harvesting and 22,266 M ³ /Yr from surface harvesting would be diverted and charged through gutters into proposed bore wells and rain water harvesting tanks. Total water becoming available is to the tune of 40,066 M ³ /Yr																													
Total Water Requirement	Total water requirement:																													
	Fresh water (CMD) & Source	: Total Water requirement for Sugar Factory and Refinery activities is 2935 M ³ / Day. Out of which 725 M ³ / Day would be the fresh water from river and remaining 2210 condensate water. Source -River Warana																												
	Condensate water (CMD)	: 2210 M ³ / Day																												
	Use of the total water (CMD) : 8699.5 M ³ / Day																													
	<table><tr><td></td><td>Sugar unit</td><td>Refinery</td><td>Total</td></tr><tr><td>Process</td><td>*1360</td><td>500 (100 + *400)</td><td>1860 (1760 * + 100)</td></tr><tr><td>Cooling</td><td>410</td><td>10</td><td>420</td></tr><tr><td>Boiler feed</td><td>100</td><td>*450</td><td>550 (450* + 100)</td></tr><tr><td>Washing & lab</td><td>65</td><td>40</td><td>105</td></tr><tr><td>Domestic</td><td>-</td><td>-</td><td></td></tr><tr><td>Total</td><td>1935 (*1360 + 575)</td><td>1000 (150 + *850)</td><td>2935 (2210* + 725)</td></tr></table>				Sugar unit	Refinery	Total	Process	*1360	500 (100 + *400)	1860 (1760 * + 100)	Cooling	410	10	420	Boiler feed	100	*450	550 (450* + 100)	Washing & lab	65	40	105	Domestic	-	-		Total	1935 (*1360 + 575)	1000 (150 + *850)
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Note:- * Condensate water																														
Natural water drainage pattern	: Storm water collection and conveyance arrangement through closed RCC pipeline has been provided in the premises. The storm water is discharged at lowest point in the premises of industry and through percolation and infiltration it enriches the ground water table.																													
Quantity of storm water	: About 22266 M ³ /Year of runoff shall be generated during monsoon season.																													
Size of SWD	: Requisite arrangements are provided by the Industry.																													
Amount of sewage generation (CMD)	: There would not be generation of domestic effluent from activities under capacity utilization and sugar refinery																													
Amount of effluent generation (CMD)	650 M ³ / Day (500 M ³ / Day from proposed sugar factory activities & 150 sugar refinery plant)																													
Capacity of the ETP (CMD)	: The present ETP comprises of primary, secondary and tertiary treatment units. Effluent generated from proposed activity like sugar factory to the tune of 500 M ³ / Day & refinery to the tune of 150 M ³ / Day shall be forwarded to existing ETP unit which has been duly upgraded.																													

Sr.	Solid waste	Source	Qty (TPM)	Form (Sludge/ Dry/ Slurry etc.)
1.	Capacity Utilization of Sugar Factory	Boiler Ash	90 MT/Day	Dry
		ETP sludge	20 MT/M	Sludge
2.	Sugar Refinery	Boiler Ash	9.6 MT/Day	Dry

Boiler Ash is sold to farmers for use as manure in fields. ETP sludge is used as manure in own premises

Hazardous waste details:

Sr.	Type & Category of Hazardous Waste	Quantity
1	Capacity Utilization of Sugar Factory	Cat. No. 5.1 and 5.2 Used /Waste Oil

If waste(s) contain any hazardous / toxic substance / radioactive materials or heavy metals, provide quantity, disposal data and proposed precautionary measures
Disposal Method - The Hazardous Waste generated under Cat. No. 5.1 would be sold to authorized re-processor.

r.	Source of Emission	Pollutant	Concentration in flue gas(g/m ³)
1.	Boiler	SPM	93.39
		SO ₂ (mg/Nm ³)	16.2

Sr. No	Fuel	Daily Consumption		Calorific value (Kcals /kg)	Ash %	Sulphur %
		Existing	Proposed			
1.	Bagasse	1272 MT / Day (Sugar Factory)	360 MT /Day (Sugar Refinery)	2500 kcal/Kg	2%	0.03%

Power supply: The entire electricity required for Warana campus shall be taken from the 44 MW Co-gen.

Existing power requirement

Sr. No.	Description	Consumption
1.	Sugar Factory	7 MW
2.	For ESP	20 KW
3.	For ETP	12 KW
4.	For Bio-Gas	12 KW
5.	For Evaporation Plant	20 KW

Proposed power requirement:

No.	Description	On Season(MW)	Off Season (MW)
a.	Power Generation	39.45	44
b.	Power Consumption		
	Sugar Factory	8.33	0.35
	Cogeneration Auxiliaries	4.40	4.40
	Distillery Division	0.81	0.81
	Colony	0.60	0.60

	Pulp – Ligno Sulphonate plant	0.25	0.25
	Refined Sugar	0.90	0.90
c.	Power Export	24.16	36.69
Green belt area (Sq. m.)		Existing Area: 18.94 Ha Proposed Area : 4.0 Ha	
Number and species of trees to be planted		For Existing: 12,091 Nos. For Proposed: 2000 Nos.	
Number, size, age and species of trees to be cut, trees to be transplanted			
Pollution Control Measures :			
Sr.	Aspect	Existing pollution control system	Proposed to be installed
1.	Air	In the existing sugar factory, the boilers are provided with the Electro Static Precipitator (3 Nos.) as APC equipment with stack of adequate height. Moreover, The DG set is provided with appropriate stack height of 45M	The steam required for capacity utilization activities shall be taken from the boilers in existing unit. Moreover, the proposed boiler in sugar refinery shall be provided with wet scrubber as APC equipment with appropriate stack height.
2.	Water	The trade effluents from existing unit are treated in an ETP provided at the site. The present ETP comprises of Oil & Grease Chamber, Equalization Tank, Bio-Digester, Primary Clarifier, Aeration Tank, Secondary Clarifier, Treated Water Sump and Sludge Drying Beds, Pressure Sand and Activated Carbon Filter. The domestic effluent is treated in septic tank followed by soak pits in decentralised manner and the over flow is used for gardening.	The effluent from proposed sugar factory capacity utilization and sugar refinery shall be treated in existing ETP which has been duly upgraded. For domestic effluent in existing unit STP shall be provided.
3.	Noise	The methodologies of isolation & separation, covering, insulation etc. are adopted in existing unit. Moreover the workers are provided with Personal Protective Equipments (PPE).	Same practice as that under existing operations shall be observed.
4.	Solid Waste	Under existing activity the from sugar factory, the solid waste in form of boiler ash and ETP sludge is generated which are to the tune of 4 MT/day and 500 MT/M respectively. Boiler Ash is used in Spentwash composting and ETP Sludge is used as manure in own factory premises.	Solid Waste in the form of Boiler Ash to the tune of 118.8 MT/Day (From Sugar 90 MT/Day + From Refinery 9.6 MT/D) and ETP Sludge to the tune of 20 MT/M would be generated. Boiler Ash would be used in Spentwash composting / supplied to farmers for use as manure. ETP Sludge would be used as manure in own

Environmental Management Plan :
 Capital cost (With break up): Rs. 2735 Lakhs (For Sugar Factory, Distillery, Bagasse Pulping,
 Co-gen & Sugar Refinery Plant), O & M cost (With break up): Rs. 182 Lakhs

DESCRIPTION	COST COMPONENT IN RS. LAKHS	
	CAPITAL	O & M PER YEAR
<i>The Sugar Factory Unit</i>		
Air Pollution Control Equipment (APC) & Stacks	Rs. 735	Rs. 60
Effluent Treatment Plant (ETP)	Rs. 150	Rs. 15
Noise Pollution Control	Rs. 10	Rs. 2
Environmental Monitoring	Rs. 10	Rs. 5
Green Belt Development	Rs. 60	Rs. 10
Occupational Health and Safety	Rs. 20	Rs. 3
<i>The Distillery Unit</i>		
Bio-methanation Plant for Spent wash Digestion	Rs. 700	Rs. 34
Multiple Effect Evaporation (MEE) Plant for Concentration of Digested Spent wash	Rs. 800	Rs. 20
Spent wash Bio-composting Infrastructure including Land, Machinery, Plant & Equipment	Rs. 220	Rs. 30
<i>The Bagasse Pulping Unit</i>		
Lignosulphonate Plant Infrastructure which converts the liquid wastes from pulping (i.e. black liquor) in to powder	Rs. 30	Rs. 3
Total	Rs. 2735	Rs. 182
Period of data collected	: March 2012 to May 2012	
Details of the primary data collection (i.e. location of the sample collection, number of visit, etc)	: M/s. Horizon Services; Pune; Environmental & Safety. A lab approved by MoEF; New Delhi which has received accreditations namely ISO 9001: 2008, ISO 14001:2004, OSHAS 18000:2007	
Details of the secondary data collection (i.e. Source and year of data)	: India Metrological Department; Govt. of India through Director General of Meteorology, New Delhi for Climatological Tables of Observatories in India	
	District Census Handbook published by Census of India; 2001	
	Survey of India – Dehradun and Hyderabad.	
Date of the public hearing	: 09.01.2013	

3. The proposal has been considered by SEIAA in its 76th meeting decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

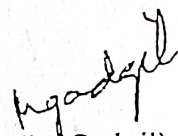
- (i) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
- (ii) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.

- (iii) Regular monitoring of the air quality, including SPM & SO₂ levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
- (iv) Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.
- (v) Proper Housekeeping programmes shall be implemented.
- (vi) In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- (vii) A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set. (If applicable)
- (viii) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
- (ix) Arrangement shall be made that effluent and storm water does not get mixed.
- (x) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (xi) Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
- (xii) 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.
- (xiii) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xiv) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
- (xv) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
- (xvi) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- (xvii) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collection/treatment/storage/disposal of hazardous wastes.
- (xviii) The company shall undertake following Waste Minimization Measures :
 - Metering of quantities of active ingredients to minimize waste.
 - Reuse of by-products from the process as raw materials or as raw material substitutes in other process.
 - Maximizing Recoveries.
 - Use of automated material transfer system to minimize spillage.
- (xix) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
- (xx) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.

- (xxi) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.
- (xxii) Separate silos will be provided for collecting and storing bottom ash and fly ash.
- (xxiii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the MPCB & this department.
- (xxiv) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://ec.maharashtra.gov.in>
- (xxv) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
- (xxvi) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xxvii) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (xxviii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
- (xxix) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.
5. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
6. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years to start of production operations.

7. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.
9. Any appeal against this environmental clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1st Floor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. This Environment Clearance is issued to M/s. Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Ltd. at Gat no. 1101/1, 1102, 1103, 1114, 1116 & 1162 Warananagar, Kodoli Tal Panhala, Dist Kolhapur.



(Medha Gadgil)
Additional Chief Secretary,
Environment department &
MS, SEIAA

Copy to:

1. Shri. R. C. Joshi, IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.
2. Shri T. C. Benjamin, IAS (Retired), Chairman, SEAC-I, 602, PECAN, Marigold, Behind Gold Adlabs, Kalyani Nagar, Pune - 411014.
3. Additional Secretary, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
4. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
6. Regional Office, MPCB, Kolhapur
7. Collector Kolhapur

8. 1A- Division, Monitoring Cell, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.

9. Select file (TC-3)

(EC uploaded on 16/12/14)