EXECUTIVE SUMMARY

For
PROPOSED EXPANSION OF
Co-gen. Power Plant to 31.5 MW
& Sugar Mill to 7000 TCD

BY
M/s Shri Dnyaneshwar SSK Ltd,
At Village Bhende, TalukaNewasa,
District Ahmednagar, Maharashtra

This executive summary is prepared on the basis of what MoEF has prescribed for considering appraisal for granting Prior Environmental Clearance.

i. Project name and location (Village, Dist, State, Industrial State (if applicable)

M/s **Shri Dnyaneshwar SSK Ltd.**, Village Bhende, Tehsil Newasa and District Ahmednagar, Maharashtra.

ii. Address for Correspondence (Name, Designation and complete address)

Shri. Anil P. Shewale, Managing Director,

M/s **Shri Dnyaneshwar SSK Ltd.**, Village Bhende, Tehsil Newasa and District Ahmednagar, Maharashtra.

iii. Products and capacities. If expansion proposal then existing products with capacities and reference to early EC.

#	Production Unit	No.	Cat	Unit	Proposed Capacity		
					Existing	Add	Total
1	**Distillery**	5(g)	A	KLPD	45	-	45
2	**Sugar**	5(j)	B	TCD	5000	2000	7000
3	**Co-Gen Power**	1(d)	B	MW	12	19.5	31.5

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iv. Requirement of land, raw material, water, power, fuel with source of supply (Quantitative)

- Land: The Company owns 330 acres land. The proposed project will be commissioned in the premises of existing factory.
- Water: Water need daily is 1867 m^3. Permission of Irrigation Department is obtained. Water source is New Mula right bank canal.
- Power: Available through Govt. Electricity Board and own generation.
- Fuel: Bagasse, 1527 TPD, available with self.

- **Raw material:**

Item	Quantity	Particulars
Sugarcane	7000TPD	Self & Available in District. Local transport will be by tractors, carts and tankers.
Sulfur	3.6 T	
Lime	12.5 T	Available from nearby Pune and Ahmednagar market. Brought by road.

v. Process description in brief, specifically indication the gaseous emission, liquid effluent and solid and hazardous wastes.

Process:

Co-gen: Steam is generated from boiler at high pressure. This high pressure steam is then supplied to turbines to produce electricity.

Sugar: Sugar is prepared in five steps. (a) Juice extraction from sugarcane, (b) Clarification of juice, (c) Evaporation of water from juice, (d) Crystallization of sugar syrup and (e) Centrifugation of massecuite.

Gaseous Emission:

.#	Source	Pollutant	In-plant Measures	Control Equipment
1	Yard	SPM road dust, HC	Leveled Roads and land, rubber tire, slow speed. Less waiting	--
2	Proposed Boiler	RSPM, CO	Feed Bagasse/husk more dry, also will be used methane. Improved quality of water	Dampers, ID Fan, CO_2 meter, Fly-ash arrestor ESP, Light ash through very tall stack.
3	Other effluents	H_2O, CO_2	Closed transfer	Fully Aerobic regime.

Liquid Effluent: There will be two types of effluent. (a) Sober effluent from cooling, boiler blow down, purging water and (b) Moderate effluent from vessel/floor washing, process, spent lees stream,

Solid waste:

#	Waste	Quantity	Disposal	Remark
1	Canteen	100 kg	Own garden	Organic
2	Colony	500 kg	Own garden	Mixed
3	ETP sludge	116 kg	On Land after composting	Organic, Non-Haz
4	Office	50 kg	Sales	Non-Haz.
5	Yeast Sludge	167 kg	On greening belt	Organic, and Non-Haz.
6	Ash	12 TPD	Sale to farmers after composting,	Takers available
7	Lube oil	18 Kg/day	Own boiler (with Bagasse)	In season

Hazardous waste:

#	List of Processes Generating Hazardous Waste	Waste stream		Remark Please vide Note
38	Cleaning of barrels which have held chemical substances	38.1	Chemicals containing residues from barrel cleaning	No. 1 below
		38.2	Sludge from waste-water purification	
41	Waste treatment processes e.g. distillation, separation and concentration technique.	41.4	Distillation residue from the work-up of contaminated halogen-free organic solvents	No. 2 below

44	Every action relating to and every use of lubricating and system oil	44.1	Spent oil	No. 3 below
		44.2	Other spent lubricating and system oil	

Note 1: The number of barrels containing Turkey Red Oil is small, as the substance is not a raw material. It is merely an anti-foam agent. These are on returnable basis to suppliers. So it can be said for the yeast supplement substances, like nutrients, which comes in bags only.

Note 2: The activity is bound to remain inside, as no organic solvents are involved anywhere in the line of process reaction or work-up.

Note 3: Not being an Engineering Industry, use of oil-grease, lubricants, or hydraulic/ system oil is extremely limited. The steps like fermentation, distillation do not involve any rotating machines, hence it is not applicable. Recovered and used for lubricating cane carrying carts.

vi. Measures for mitigating the impact on the environment and mode of discharge or disposal.

- Air pollution: Air pollution control equipments like ESP, ID Fan, dampers. Stack of appropriate height installed.
- Water pollution: This is Zero Liquid Discharge unit. No water is discharged from the site to surrounding area. The sober effluent is given physic-chemical treatment. Then this water is combined with Moderate effluent which is treated with equalization, neutralization, aeration, secondary clarifier and tertiary treatment.
- Noise: Sturdy foundation provided for machines, personal protective equipment like ear plugs given to workers, tree belt as sound barrier around factory.

vii. In case of hazardous operation, safety systems incorporate.

Sugar and Co-gen operation is not hazardous. However, risk assessment is done for proposed project. Workers are trained for safety and emergency cases.

viii. Capital cost of the project, estimated time of completion.

Capital cost of proposed project is Rs. 96.90 Crores. Rs. 6 Crores are earmarked for environmental care for existing and Rs. 1.10 Cr for proposed project. The estimated time for completion is 1 year after getting all permissions.

ix. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)

Site selected for project is already being used as industrial land. The proposed project will be established in premises of existing industry. The land of area 330 acres is owned by company. Within the study area, there are no forests eco-

sensitive zones and major industries. The project location has good accessibility. State Highway 0.5 km away from site.

x. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population

Baseline environmental data is collected by monitoring. Quality of surface water, ground water, air is found to be within limit. Soil characteristics are also agreeable.

There are no eco-sensitive areas and endangered species of flora & fauna within 10 km area.

People in study area are mainly dependent on agriculture. For improving their status, big industries like this are required.

xi. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.

There is no risk involved in Sugar and Co-gen production. However, risk assessment is done for proposed project. Workers are trained for safety and emergency cases. Precautions suggested by Factory Inspectors, MPCB and Experts are taken into account while preparing the Disaster Management Plan for the factory.

xii. Likely impact of the project on air, water, land, flora-fauna and nearby population

There are minimal impacts on air, water land, flora-fauna and nearby population. The emissions in air are controlled by air pollution equipment like ESP, dampers, ID Fans, Stack. As this is ZLD, surface or ground water is not polluted. All waste water generated is treated and recycled. There are no endangered species of flora-fauna in study area. Air modelling is done to study Ground Level Concentration. The incremental concentration is very small and resultant concentration is well within limit.

xiii. Emergency preparedness plan in case of natural or in plant emergencies

Disaster management cell and plan is prepared to tackle man-made and natural disaster. People in this cell are trained to face emergency cases. Safety equipments are also provided to workers and installed in the premises. Workers are also trained to avoid accidents during operation.

xiv. CSR plan

CSR plan is being prepared as per Govt. Regulations. Suggestions received during Public Hearing will also be incorporated in the CSR Plan. Major facets are given below.

#	**Particulars**
1	Education and Boarding for children of Workers
2	Seminars and training for farmers
3	Health camp, medical facilities
4	Tree plantation and providing saplings
5	Women empowerment
6	Vocational training for youth

7 Funds for facilities in village and surrounding area
8 Funds to Chief Minister/Prime Minister Relief Fund

Suggestions given in Company Act, 1956 and its amendments will also be taken into account. The fund allocation will be finalized after discussion with society.

xv. Occupational Health Measures

For the present, it is found that the situation is within Permissible Exposure level (PEL). In order to maintain the same, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved is mentioned. For future work, namely exposure specific health status evaluation of worker, we propose to conduct health evaluation on a pre-designed format for chest X rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect), ECG during pre placement and periodical examinations as per Factory Act & Rules. This will be for future working when alcohol manufacturing is involved, with an aim of maintaining OHS standards as per OSHAS/USEPA. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers is separately earmarked

#	Occupation	Type of Evaluation	Frequency Pre-placement & Thereafter		
			For Age <30 every (years)	For Age 30-40 every (Years)	For Age 41-50 every (years)
1	Cane crushing area	Chest X-ray, Spirometry & vision testing	5	4	2
2	Sugar Process area & Co-generation Area	Chest X-ray, Spirometry & vision testing	5	4	2
3	Main Control Room	Far & Near Vision, colour vision and hearing test	5	4	2
4	Ash & Bagasse handling area	Chest X-ray, Spirometry, vision & Hearing testing	5	4	2
5	Noise prone area	Audiometry	Annually		

xvi. Post project monitoring plan

#	Facet	Stations at	Parameters	Frequency
1	Surface water	One upstream One downstream One nalla	BOD, pH, SS, TDS, Colour	H-Y
2	Groundwater	One up-gradient Two down-gradient near the lagoon & compost yard	BOD, pH, SS, TDS, Colour	H-Y

3	AAQ (Ambient Air Quality)	Three directions @ 120 degrees, one of it especially covering the spot indicated by mathematical modelling	RSPM, SO2, NOx	H-Y
4	Noise	Three directions @ 120 degrees, as may be advised by MPCB	Decibel	H-Y day and night

Above mentioned facets will be monitored regularly and compliance reports will be submitted regularly to MoEF.