

SIX MONTHLY COMPLIANCE REPORT

(PERIOD OCTOBER 2021- MARCH 2022)

FOR
COGENERATION UNIT OF 28.5 MW

By



JAWAHAR SHETAKARI S.S.K. LTD. (JSSSKL)

**AT: Hupari-Yalgud, SURVEY. NO.: 315/7 to 315/15, TAL.:
HATKANANGALE, DIST.: KOLHAPUR, MAHARASHTRA**

JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD., HUPARI

Shri Kallappanna Awadenagar, Hupari-Yalgud 416 203, Tal.: Hatkanangale, Dist.: Kolhapur (Maharashtra)
Phone (0230) 2450402 (5 Lines), Fax (0230) 2450401, E-mail : kprjsssk@gmail.com

Ref. No. MFG/ETP/ 1538 / 2022

Date -20 /05/2022

To,
The Regional Officer,
MoEFCC; Western Region (WCZ),
Ground Floor, East Wing,
New Secretariat Building,
Civil Lines,
Nagpur - 440001.

Sub. : Submission of Six Monthly Environment Compliance report for period **October 2021 to March 2022** w.r.t Co-gen Unit of 28.5 MW - **M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari**, Shri Kallappanna Awadenagar, Hupari-Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, Maharashtra State.

Ref. : Environmental Clearance (EC) Letter No. ENV (NOC) 2005/1591/CR224/TC-II dated 27.08.2007.

Dear Sir,


This has reference to Environmental Clearance (EC) granted to our Co-gen Unit of 28.5 MW- **M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari** Shri Kallappanna Awadenagar, Hupari-Yalgud, Tal.: Hatkanangale, Dist.: Kolhapur, Maharashtra State.

We are submitting a six monthly compliance report for a period of **October 2021 to March 2022**.

We hope the details furnished by us are in accordance with your requirements.

Thanking you,

Your's faithfully
For Jawahar S.S.S.K. Ltd.Hupari


(M.G. Joshi)
Managing Director

Encl.- As above

Copy for information to:-

1. Scientist 'E' Incharge,
Central Pollution Control Board,
4th Floor, Sakhar Bhavan,
North T.T Nagar,
Bhopal - 462003

2. Member Secretary,
Maharashtra Pollution Control Board,
Kalpataru Point, 3rd & 4th Floor,
Opp.Cine Planet,
Near Sion Circle, Sion (E),
Mumbai (Maharashtra) - 400 022.

3. Regional Officer,
Maharashtra Pollution Control Board,
Udyog Bhavan Building,
Naer Collector Office,
Kolhapur- 416 002.

Enclosure – I
EC Letter

GOVERNMENT OF MAHARASHTRA

☎ 2285 50 82
☎ 2202 59 48

No.ENV(NOC)2005/1591/CR224/TC-II
ENVIRONMENT DEPARTMENT,
Mantralaya, New Administrative Bldg.,
15th floor, Madam Cama Marg,
MUMBAI - 400 032.

Dated : 27 AUG 2007

To,

The Chairman /Managing Director,
M/s. Jawahar Shetkari Sahakari Sakhar Kharkhana Ltd.,
Kallapanna Awade Nagar,
Hupri Yalgud Road,
Dist. Kolhapur

Sub : Environment clearance.

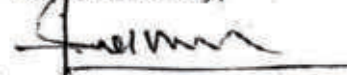
Sir,

I am directed to refer to your letter dated 11th October, 2006, on the subject mentioned above and to state that the Environment Department of the State Government has no objection from the environmental angle to permit you expansion of sugarcane crushing capacity from 5000 TCD to 7500 TCD (from Five Thousand TCD to Seven Thousand Five Hundred TCD only) and Co-Generation from 24 MW to 28.5 MW at, Kallapanna Awade Nagar, Hupri Yalgud Road] Dist. Kolhapur, Maharashtra State subject to the following conditions & general conditions stipulated in the Annexure.

These stipulations will be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 alongwith their amendments.

The above permission is without prejudice to any other permissions required under any of the laws, bye-laws or regulations in force and that the Government may impose any additional conditions from time to time for control of pollution, if necessary.

Yours faithfully,



(Surendra Jadhav)

Deputy Secretary to Government

ENCL : As above.

JAWAHAR SSSK LTD.. HUP.
IW No. 2292 Date 1/9/07
Sent To MD
Up to ADM, Chemical Engg. ChE,
Secretary / Managing Director.

1. The Project Authority shall take adequate safety precautions in handling the raw materials, plant and machinery and the products of the processes so as to avoid any damage / loss of property, or environment.
2. The Project Authority shall provide personal protective equipments, impart training and medical facilities to the workers handling the hazardous / dangerous raw materials, finished products or processes.
3. The Project Authority shall prepare the on-site disaster management plan and should submit to the Director, Industrial Safety and Health. The copies of which shall also be submitted to the District Collector, Local Authority, Maharashtra Pollution Control Board (MPCB) and the Environment Department, Government of Maharashtra. The Project Authority shall submit the information to the Director, Industrial Safety and Health for the preparation of the off-site disaster management plan. The Project Authority should carry out periodical rehearsal of the on-site disaster management plan.
4. The Project Authority shall comply with all statutory requirements for safe transportation of raw materials / finished products in case of trucks / tankers carrying hazardous raw materials shall be washed and cleaned up within the plant premises, so as to ensure no pollution in the vicinity.
5. The Project Authority shall use cleaner technology for the manufacturing process and the clean fuel for the operations so as to reduce process waste, liquid effluents and gaseous emissions.
6. The Project Authority shall treat the liquid effluents so as to conform to the standards prescribed by MPCB. The disposal of the treated effluent shall be in accordance with the conditions imposed by MPCB / GOM (Government of Maharashtra / Government of India). The continuous monitoring facility for the effluents should be provided by the project authority. If the effluent quality exceeds the standards at any time the corresponding units of the plant which are contributing the excessive pollutant load shall be stopped from the operations till the quality of pollutant discharged from those units are brought down to the required level. Under no circumstances, the quality of the effluent shall exceed the limits mentioned in the consent letter. The Project Authority should draw water consumption plans and the time bound sincere efforts for the reduction of water consumption should be made.
7. In case the treated effluent is proposed to be utilized for land irrigation / gardening on the land owned by the Project Authority, the sufficient area should be earmarked for the same purpose in consultation with the Agriculture Department. Under no circumstances, such an effluent should be allowed to flow outside the premises of the project. During Monsoon, on heavy rainfall period, if the treated effluent can not be absorbed in the project land and there is likelihood of the effluent going into the nearby areas, the respective unit should be put out of operation immediately. For the purpose of effluent disposal, mechanical system (Sprinkler etc.) and shall make adequate arrangements for the storage of excessive effluent (impervious storage tank etc.) in consultation with MPCB.
8. The Project Authority shall regularly and periodically undertake soil testing of the land which are being used for the disposal of the effluent and shall also undertake periodical and regular testing of water sources in the vicinity of the project.
9. The Project Authority shall control the air emissions as per the standards prescribed by MPCB. No change in the design of stack and fuel mix be done without the permission of MPCB. Minimum number of air quality monitoring

stations should be set up in consultation with MPCB in the plant and nearby areas. The air quality should be monitored on regular basis. All the stacks of the plant should be provided with the continuous stack monitoring equipment and the stack emission levels shall be recorded and submitted to the MPCB as per their directives.

10. The process emissions shall meet the standards prescribed by MPCB. At no time, the emissions should be beyond the standards. The respective units which exceed the standard should be put out of order immediately and should not be restarted until the control systems are rectified.
11. The solid waste shall be treated and disposed off as prescribed in the authorization certificate granted by MPCB in accordance with the Hazardous Waste (Handling and Management) Rules, 1989 (wherever applicable).
12. The Project Authority shall take precautions so as to reduce other types of environmental problems like noise, odour, thermal / heat and radio activity etc. (if applicable).
13. The Project Authority shall set up environment management cell with a suitably qualified staff, to carry out various functions of the environment management. The Environment Management Plan should be prepared by the project authority shall also earmarked submitted to MPCB. The Project Authority shall also earmarked funds for the Environment Management Cell and same shall not be diverted for any other purpose. The Project Authority shall prepare environment statement every year and copy of the same should be submitted to the MPCB.
14. The cases of any disaster / accident / mishap due to handling raw materials, process, plant and machinery or finished products, the Project Authority shall be personally, jointly and severally be responsible for the event.
15. Tree plantation programs should be undertaken at the rate of not less than 2500 trees per ha. on the factory land, in consultation with the Forest Department of the State Government and MPCB.
16. This environment clearance is not transferable and shall lapse after a period of 2 years from the date on which the clearance is given, unless the intended development is commenced before the expiry of the period.
17. The Project Authority must strictly adheres to the stipulations made by MPCB / Government of Maharashtra / Government of India. The Project Authority shall submit the compliance report regarding conditions imposed by MPCB / Government of Maharashtra (Environment Department) / Government of India before commencement of production / activity.
18. The Company should used a treated effluent for afforestation and create a green belt around the factory premises with necessary fencing around it.

Brief Summary of the Project

- 1 Name of Project : **M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., (JSSSKL), Hupari**
2. Clearance Letter No. & date : ENV (NOC) 2005/1591/CR224/TC-II, dated 27.08.2007
3. Location: District & State/UT : Dist.: Kolhapur. State: Maharashtra.
4. Address for Correspondence : Shri Kallappanna Awadenagar, Hupari -Yalgud, Tal. Hatkanangale, Dist.: Kolhapur, Maharashtra 416 203.

Six Monthly Compliance Report (Period October 2021 to March 2022) for Co-generation Unit of Capacity 28.5 MW by M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari (JSSSKL), Shri Kallappanna Awadenagar, Hupari-Yalgud, Tal. Hatkanangale, Dist.: Kolhapur, Maharashtra 416203.

M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd; Hupari (JSSSKL) is an Integrated Project Complex of Sugar (16,000 TCD) & Co-gen (28.5 MW) located at Kallappanna Awadenagar, Hupari-Yalgud, Tal. Hatkanangale, Dist.: Kolhapur, Maharashtra State. JSSSKL was established in 1990 under. The Maharashtra Co-operative Society Act 1960. Sugar factory is registered with Govt. of Maharashtra, Vide Certificate No. KPR/HLE/PRG (A)/30(S)/29-JAN-1990. In addition, it has been registered as Multi-State Co-operative Society Vide registration no. MSCS/CR-51/30-DEC-1994. First crushing season of Sugar Factory was undertaken in the year 1993-94. Environmental Clearance (EC) was Granted to 7,500 TCD Sugar and 28.5 Co-gen by Maharashtra Government vide letter no. ENV (NOC) 2005/1591/CR224/TC-II, dated 27th August 2007. Environment clearance is Enclosed at **Enclosure-I**. There after JSSSKL Planned to go for Expansion of Sugar Factory 7,500 TCD to 12,000 TCD for which Environmental Clearance (EC) was procured vide letter no. J-11011/38/2016-IA-II (I) Dated 20th December, 2016. There after JSSSKL Planned to go for Expansion of Sugar Factory 12,000 TCD to 16,000 TCD for which Environmental Clearance (EC) was procured vide letter No.F.No.IA-J-11011/146/2020-IA II (I) Dated 1st December, 2020.

Compliance of Specific and General Conditions mentioned in Environmental Clearance (EC) letter vide no. ENV (NOC) 2005/1591/CR224/TC-II, dated 27th August 2007 for period **October 2021 to March 2022** is presented as follows -

No.	Environmental Clearance Conditions	Compliance towards the Conditions Stipulated
1	Condition No.1 The Project Authority shall take adequate safety precautions in handling the raw materials, plant and machinery and the	Adequate safety measures for handling the raw material, plant and machinery are taken. Raw material used for Co-gen is bagasse, generated

	products of the processes so as to avoid any damage / less of lie of property or environment.	from own sugar factory. 65,520 MT/M of bagasse is used for generation of electricity. Bagasse is transported to boiler through close conveyor belt. A Risk Assessment Report have been prepared for project complex. Therein, identified of hazard and mitigation measures has been suggested. Moreover, the fire hazard areas like bagasse storage yard, switchyard etc. have been provided with appropriate firefighting arrangements. Boiler interlock details is enclosed at Annexure I
2	<p>Condition No.2</p> <p>The Project Authority shall provide personal protective equipments; impart training and medical facilities to the workers handling the hazardous / dangerous raw materials, finished products or processes.</p>	<p>The workers engaged in handling operations are provided with necessary Personal Protective Equipment's (PPEs) like safety helmet, shoes, goggles, face mask, dust mask, hand gloves, welder goggles, earmuffs, safety belts etc. Regular training is important for workers who are handling the hazardous / dangerous raw materials, finished products or processes etc. Moreover, annual health checkup of all workers is done through authorized and qualified doctor and records are maintained. Latest health checkup report dated 03.09.2021. Health checkup reports are enclosed at Annexure II.</p>
3	<p>Condition No.3</p> <p>The Project Authority shall prepare the on-site disaster management plan and should submit to the Director, Industrial Safety and Health. The copies of which shall also be submitted to the District Collector, Local Authority, Maharashtra Pollution Control Board (MPCB) and the Environment Department, Government of Maharashtra. The Project Authority shall submit the information to the Director, Industrial Safety and Health for preparation of the off-site disaster management plan. The Project Authority should carry out periodical rehearsal of the on-site disaster management plan.</p>	<p>As mentioned above a Risk Assessment Report have already prepared for entire project complex. Therein, identification of hazard and migration measures have been suggested. Moreover, the fire hazard areas like bagasse storage yard, switchyard etc. have been provided with appropriate firefighting arrangement. Periodic mock drills are conducted for imparting training on handling hazardous situations and handling of firefighting equipments. Latest Mock drill was conducted on 25.01.2022. Photographs of Firefighting system and Mock drill is enclosed at Annexure III.</p>
4	Condition No.4	

	<p>The Project Authority shall comply with all statutory requirements for safe transportation of raw materials / finished products in case of trucks / tankers carrying hazardous raw material shall be washed and cleaned up within the plant premises, so as to ensure no pollution in the vicinity.</p>	<p>Not applicable. Since electricity generated is directly fed to MSEB grid.</p>
5	<p>Condition No.5 The Project Authority shall be use cleaner technology for the manufacturing process and the clean fuel for the operations so as to reduce process waste, liquid effluents and gaseous emissions.</p>	<p>In Co-gen plant electricity is generated using bagasse as fuel for steam generation. Bagasse is a renewable source of energy.</p>
6	<p>Condition No.6 The Project Authority shall treat the liquid effluents so as to confirm to the standards prescribed by MPCB. The disposal of the treated effluent shall be in accordance with the conditions imposed by MPCB / GOM (Government of Maharashtra / Government of India). The continuous monitoring facility for the effluent should be provided by the project authority. If the effluent quality exceeds the standards at any time, the corresponding units of the plant which are contributing the excessive pollutant load shall be stopped from the operations till the quality of pollutant discharged from those units are brought down to the required level. Under no circumstances, the quality of the effluent shall exceed the limits mentioned in the consent letter. The Project Authority should draw water consumption plans and the time bound sincere efforts for the reductions of water consumption should be made.</p>	<p>Effluent generated from Co-gen plant operation mainly comprise of boiler blow downs - 150 CMD and DM backwash - 10 CMD. This entire effluent is forwarded to Sugar ETP.</p>
7	<p>Condition No7 In case of the treated effluent is proposed to the utilized for land irrigation / gardening on the land owned by the project Authority, the sufficient area should be earmarked for the same purpose in consultation with the Agriculture Department. Under no circumstances, such an effluent should be</p>	<p>No effluent is discharge outside industrial premises. The treated effluent is being recycled and use for gardening in premises. Online monitoring system as well as flow meter already provided for ETP. ETP monitoring reports are attached is enclosed at Annexure IV</p>

	<p>allowed to flow outside the premises of the project. During Monsoon on heavy rainfall period, if the treated effluent cannot be absorbed in the project land and there is likelihood of the effluent going into the nearby areas, the respective unit should be put out of operation immediately. For the purpose of effluent disposal, mechanical system (Sprinkler etc.) and shall make adequate arrangements for the storage of excessive effluent (impervious storage tank etc.) in consultation with MPCB.</p>	
8	<p>Condition No.8 The Project Authority shall regularly and periodically undertake soil testing of land which are being used for the disposal of the effluent and shall also undertake periodical and regular testing of water sources in the vicinity of the project.</p>	<p>Industry regularly conducts soil testing by approved laboratory of nearby farmers where treated effluent is used for irrigation.</p>
9	<p>Condition No.9 The Project Authority shall control the air emissions as per the standards prescribed by MPCB. No change in the design of stack and fuel mix be done without the permission of MPCB. Minimum number of air quality monitoring stations should be set up in consultation with MPCB in the plant and nearby areas. The air quality should be monitored on regular basis. All the stacks of the plant should be provided with the continuous stack monitoring equipment and stack emission levels shall be recorded and submitted to the MPCB as per their directives.</p>	<p>ESP have been installed to Co-gen boiler of capacity 20, 90 & 75 TPH followed by stack of 75M& 72 M height. As per latest guidelines of CPCB, online monitoring system have been installed for Co-gen boiler stack. Therein, parameter like SPM is monitored continuously. Moreover, industry conducts self-monitoring w.r.t. Ambient Air, Stack Emissions, Noise as well as analysis of untreated and treated effluent on monthly basis. The same is done through an approved laboratory. The AAQ locations are selected in upwind and downwind directions. The report of the same are enclosed at Annexure IV</p>
10	<p>Condition No.10 The process emissions shall meet the standards prescribed by MPCB. At no time, the emissions should be beyond the standards. The respective units which exceed the standard should be put out of order immediately and should not be restarted until the control systems are rectified.</p>	<p>The condition has been followed.</p>

11	<p>Condition No.11 The solid waste shall be treated and disposed off as prescribed in the authorization certificate granted by MPCB in accordance with the Hazardous Waste (Handling and Management) Rules, 1989 (Wherever applicable).</p>	<p>No hazardous waste is generate in Co-gen plant. Solids waste in form of boiler ash is generated and the same is given to farmers for use as manure. Also, given to brick manufacturer.</p>
12	<p>Condition No. 12 The project Authority shall take precautions so as to reduce other types of environment problems like noise, odour, thermal/heat and radio activity etc. (if applicable).</p>	<p>Major noise generating source are Boiler, Turbine, D.G. Set etc. The overall noise level in the around the plant area are maintained within the standards prescribed under Environment (Protection) Act, 1986 Rules. Workers working in noisy area are provided with personal protective equipment's such as earplug, earmuffs etc. The measures adopted under existing unit for controlling the same are proper housekeeping, sludge management in biological ETP units, steaming of major pipe lines, regular use of bleaching powder in the drains, efficient handling, prompt & proper disposal of pressmud. No any radioactive substances are used in Co-gen plant.</p>
13	<p>Condition No. 13 The Project Authority shall set up environment management cell with a suitably qualified staff, to carry out various functions of the environment management. The Environment Management Plan should be prepared by the project authority shall also earmarked submitted to MPCB. The project Authority shall also earmarked funds for the Environment Management Cell and same shall not be diverted for any other purpose. The Project Authority shall prepare environment statement every year and copy of the same should be submitted to the MPCB.</p>	<p>The industry has an Environmental Management Cell (EMC) functioning. Members of the EMC are well qualified and experienced in their concerned fields. A separate Environment Management cell of 15 Persons is already established. Structure of EMC is enclosed at Annexure V</p>
14	<p>Condition No. 14 The cases of any disaster/accident/mishap due to handling raw materials, process, plant and machinery or finished products, the Project Authority shall be personally, jointly and severally be responsible for the event.</p>	<p>Noted.</p>

15	<p>Condition No. 15 Tree plantation programs should be undertaken at the rate of not less than 2500 trees per ha on the factory land, in consultation with the Forest Department of the state Government and MPCB.</p>	<p>Total 62,279 Nos. of trees have been planted in the factory premises. Out of the total plot of 246 Acres (99.55 Ha.), 83.20 Acres (34 Ha.) area comes under Greenbelt. This comes to about 34% of total plot area. Details and Photographs of Green belt is enclosed at Annexure VI</p>
16	<p>Condition No. 16 This environment clearance is not transferable and shall lapse after a period of 2 years from the date on which the clearance is given, unless the intended development is commenced before the expiry of the period.</p>	<p>The Condition is followed by industry.</p>
17	<p>Condition No. 17 The Project Authority must strictly adhere to the stipulations made by MPCB/ Government of Maharashtra/ Government of India. The Project Authority shall submit the compliance report regarding conditions imposed by MPCB/ Government of Maharashtra (Environment Department)/ Government of India before commencement of production/activity.</p>	<p>Industry is strictly following all the stipulations made by the Central Pollution Control Board (CPCB) as well as Maharashtra State Pollution Control Board (MPCB).</p>
18	<p>Condition No. 18 The Company should use a treated effluent for afforestation and create a green belt around the factory premises with necessary fencing around it.</p>	<p>Effluent is treated in existing ETP. Treated effluent is used for gardening purpose in the industrial premises.</p>

Annexure I
Details of Boiler Interlocking

ALSTOM

Turbine Details :

Sr. No.	Particulars	Turbine Data	
		12 MW	2.5 MW
1.	Type	Back Pressure Route	Back Pressure Route
2.	Working Pressure	42 Kg/cm ² g	20 Kg/cm ² g
3.	Working Temperature	475°C	320°C
4.	Qty.	2 Nos.	1 No.

Sr. No.	Criterion	Unit	Normal Value	Response Value	TAG No ^o	Remark
A) Protection equipment (emergency tripping) :						
1.	Trip Relay	Min ⁻¹	7000	7700	SS-1-01	
2.	Rotor axial position	µm	< 130	> 530	ES	
3.	Lube oil pressure	Kgf/cm ²	2.0	≤ 1.0	PS-32A/B	
4.	Exhaust steam pressure	Kgf/cm ²	1.0	1.2	PS-01A/B	
5.	Metal Bearing Temp.	°C	70 – 85	105	TI3-P (31-38)	
B) Safety Equipment (Switching) :						
1.	Automatic start of auxiliary oil	Kgf/cm ²	8.0	< 6.0	PS-2-31	
2.	Automatic start of recooling oil	Kgf/cm ²	2.0	< 1.0	PS-2-36	
C) Monitoring Equipment (Alarms) :						
1.	Difference pressure Main oil Δp	Kgf/cm ²	0.5	≥ 0.8	PD6-S-31	
2.	Lube oil temp. after oil cooler.	°C	45	≥ 55	TI3-P-50	
3.	Rotor axial position	µm	< 130	> 330	ES	
4.	Exhaust steam pressure.	Kgf/cm ²	1.0	> 1.1	PS-04	

Boiler Interlock

Fuel Handling System:

1. Main bagasse carrier tripped, previous carriers RBC belts tripped.
2. Pull cord & belt SWA switch provided for emergency operation.

Ash Handling System :

1. Ash conditioner tripped. Ash conveying system tripped.

FAN Interlock System :

1. ID Fan stopped or tripped then FD fan, SA fan and fuel handling system are tripped.
2. FD Fan stopped or tripped then SA Fan and fuel handling system are tripped.
3. SA Fan stopped or tripped the fuel handlings system are tripped.

Drum Level Interlock:

1. Drum level greater than 80% or less than 20% FD Fan tripped.

Bagasse Feeder Interlocks:

1. SA Fan air pressure for fuel feeding less than 250mmWc or both SA fan stopped or tripped.

Feed Pump Interlock:

1. Deareator level less than 30% or suction pressure less than 1 Kg/cm² or suction valve close. All any above conditions or any one of above conditions occur then feed pump tripped.

ESP Interlock System :

1. Purge air blower stopped or tripped or ESP inlet flue gas temperature less than 130°C or ESP hopper level hi hi alarm then ESP TRCC tripped.

Boiler Alarm

1. Fuel feeding air pressure for bagasse less than 350mmWc.
2. ESP inlet Temperature less than 140°C.
3. Main steam pressure less than 40 Kg/cm².
4. Main steam Temperature less than 400°C.
5. Deareator level less than 50%.
6. Deareator level greater than 90%.
7. Deaerator temperature less than 105°C.
8. Deareator temperature greater than 110°C.

Turbine Interlock System

Turbine Tripping Interlock:

1. Lube oil pressure less than 1.8 kg/cm².
2. Control oil pressure less than 7.8 kg/cm².
3. Turbine inlet pressure less than 38 kg/cm².
4. Turbine inlet temperature less than 350 °C.
5. Exhaust pressure greater than 1.45 kg/cm².

Vibration Alarm and Trip Condition (Turbine, Gearbox and Alternator) :

Sr. No.	TAG	Service Name	Alarm H	Trip HH	Alarm L	Alarm LL
1.	ZI-801	Axial Displacement	0.4mm	0.6mm	0.4mm	0.6mm
2.	ZI-802	Axial Displacement	0.4mm	0.6mm	0.4mm	0.6mm
3.	ZI-801	Turbine front bearing vibration X-axis	76 μ	99 μ		
4.	ZI-802	Turbine front bearing vibration Y-axis	76 μ	99 μ		
5.	ZI-803	Turbine rear bearing vibration X-axis	76 μ	99 μ		
6.	ZI-804	Turbine rear bearing vibration Y-axis	76 μ	99 μ		
7.	ZI-805	GB High speed DE vibration X-axis.	65 μ	125 μ		
8.	ZI-806	GB High speed DE vibration Y-axis.	65 μ	125 μ		
9.	ZI-807	GB High speed NDE vibration X-axis.	65 μ	125 μ		
10.	ZI-808	GB High speed NDE vibration Y-axis.	65 μ	125 μ		
11.	ZI-809	GB Low speed NDE vibration X-axis.	90 μ	150 μ		
12.	ZI-810	GB Low speed NDE vibration Y-axis.	90 μ	150 μ		
13.	ZI-811	GB Low speed DE vibration X-axis.	90 μ	150 μ		
14.	ZI-812	GB Low speed DE vibration Y-axis.	90 μ	150 μ		
15.	ZI-813	Alternator front vibration X-axis.	178 μ	232 μ		
16.	ZI-814	Alternator front vibration Y-axis.	178 μ	232 μ		
17.	ZI-816	Alternator rear vibration X-axis.	178 μ	232 μ		
18.	ZI-817	Alternator rear vibration Y-axis.	178 μ	232 μ		
19.	--	Exciter field volt	200 V	200 V		
20.	--	Exciter field current	25 A	25 A		

Bearing Temperature, Alarm and Trip Condition (Turbine, Gearbox) :

Sr. No.	SESOR	ALARM	TRIP
1.	Turbine thrust active top bearing temperature.	95 °C	120 °C
2.	Turbine thrust non active top bearing temperature.	95 °C	120 °C
3.	Turbine front bearing temperature.	110 °C	120 °C
4.	Turbine rear bearing temperature.	110 °C	120 °C
5.	Turbine active bearing bottom temperature.	95 °C	120 °C
6.	Turbine non active bearing bottom temperature.	95 °C	120 °C
7.	Gearbox high speed front bearing temperature.	100 °C	120 °C
8.	Gearbox high speed rear bearing temperature.	100 °C	120 °C
9.	Gearbox low speed front bearing temperature.	85 °C	120 °C
10.	Gearbox low speed rear bearing temperature.	85 °C	120 °C

Bearing Gear Motor Interlock System:

1. Lube oil pressure greater than 1.95 kg/cm² then barring gear motor start permissive.
2. Turbine RPM less than 250 RPM then barring gear motor start permissive.

Annexure II
Health Check-up Reports

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 03/09/2021 To 02/09/2022

Certifying Surgeon

DR. ARVIND MANE

MBBS DPH AFIHL (Mumbai)

Company Name : JAWAHAR SHETKARI SAHAKARI KARKHANA LTD.

Sr. No.	Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharge	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of unfitness or suspension issued to worker	Signature with gate certifying surgeon.
1	2086	MR. TATOBA B PATIL	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
2	1570	MR. SADASHIV B KUMBHAR	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
3	0007	MR. RAMESH R CHAVAN	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
4	1259	MR. RAJESH R BAWACHE	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
5	0947	MR. MANGESH PUJARI	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
6	1360	MR. SURESH K KORE	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7	1408	MR. SUBASH J KAMBLE	56	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
8	6258	MR. ABHIJEET D PAKALE	22	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
9	7229	MR. ARIHANT K BARGALE	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
10	1850	MR. SUNIL B. KININGE	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
11	0417	MR. RAGHUNATH R MUDHALE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
12	7218	MR. RUSHIKESH B PATIL	24	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
13	0370	MR. MARUTI G SHINDE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
14	1741	MR. RAHUL R SHANDAGE	40	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
15	0972	MR. VIJAY M GHATGE	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
16	1436	MR. SHARAD A MUDGAL	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
17	0414	MR. SHEKHAR M BHANDARE	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
18	0861	MR. RAJARAM K DAVARI	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
19	1817	MR. JAWAHAR B MALI	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम 1947 च्या कलम 10(2) प्रमाणे
कॉल्हापुर जिल्हाकरिता

प्राधिकृत प्रमाणक शल्यचिकित्सक
क्र. ACS 15-AM/2016

Form No 7 (Prescribed under Rule 18 (7))

HEALTH REGISTER

From: 03/09/2021 To 02/09/2022

Certifying Surgeon

DR. ARVIND MANE

MBBS DPH AFIH.(Mumbai)

Company Name : JAWAHAR SHETKARI SAHAKARI KARKHANA LTD.

Sr. No.	Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharge	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of unfitness or suspension issued to worker	Signature with gate certifying surgeon.
20	0645	MR. BHAUSAB T MUDALE	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
21	7480	MR. AMOL J JOKARE	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
22	0353	MR. SHRIDHAR P NALGE	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
23	1962	MR. AJIT B KININGE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
24	0720	MR. BALASAHEB HEGADE	56	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
25	1116	MR. RAJARAM L BARGAVKAR	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
26	2125	MR. RAHUBHAU UATHARE	60	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
27	0108	MR. VIJAY J PODJALE	58	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
28	989	MR. R G NAIKWADE	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
29	7504	MR. SANTOSH S CHOUGULE	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
30	0010	MR. PUNDLIK N KAMBLE	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
31	1903	MR. RAMESH P SALOKHE	39	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
32	7246	MR. SHUBHAM A KALAGATE	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
33	1319	MR. NISAR M MULLA	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
34	0625	MR. SAGAR R PATIL	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
35	0755	MR. VIJAY R DANGRE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
36	1720	MR. NITIN B SHINTRE	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
37	1335	MR. VIJAY V YADAV	56	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
38	0846	MR. ADAM A MULLA	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम 1947 च्या कलम 10(2) प्रमाणे
कोल्हापूर जिल्हाकरीता

प्राधिकृत प्रमाणकशल्यचिकित्सक
क्र. ACS 15-AM/2016

Form No 7 (Prescribed under Rule 18 (7))

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9	1260	MR. SURESH J PARIT	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
0	1536	MR. SATAPPA M SUTAR	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1	0946	MR. APPASO U HAWALDAR	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
2	6023	MR. AKASH A BODALE	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
3	1456	MR. NIVRUTTI N KATKAR	56	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
4	1267	MR. HANMANT B MORE	42	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
5	0435	MR. SURESH A DESAI	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
6	380	MR. VILAS N PATIL	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7	1403	MR. RAJENDRA A SANNAKE	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
8	289	MR. SUNIL H KHADE	58	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
9	2092	MR. RAMESH S PATIL	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
0	1956	MR. SUNIL A KALAGANTE	42	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1	1991	MR. SACHIN A KERGUTTE	37	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
2	1318	MR. DADASO D PATIL	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
3	0314	MR. SANDIP N TAVANSHETTI	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
4	1954	MR. RAHUL U MUDRALE	44	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
5	0180	MR. SURESH B GIRAGAVE	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
6	0660	MR. VILAS B RAUT	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7	0404	MR. KRISHNA SANKAPAL	59	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
कोल्हापूर जिल्हाकरिता

HEALTH REGISTER

From: -03/09/2021 To 02/09/2022

Certifying Surgeon

DR. ARVIND MANE

MBBS DPH AFIH.(Mumbai)

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58	0399	MR. SANJAY D PATIL	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
59	1959	MR. HINDURAO D MANE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
60	1729	MR. UMESH A CHOUGULE	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
61	2238	MR. SHRIKANT R DADMODE	44	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
62	0885	MR. ASHOK G CHAVAN	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
63	1701	MR. SHANTINATH B CHOUGALE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
64	1699	MR. SANJAY KAMBLE	59	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
65	0910	MR. RAJENDRA A SANGAI	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
66	1670	MR. PANDURANG J KAMBLE	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
67	2085	MR. DONDAPPA KAMATNURE	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
68	1912	MR. RAMESH S PATIL	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
69	1633	MR. SHIVAJI B MALI	44	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
70	1217	MR. SAMBHAJI B SADALE	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
71	0006	MR. RAJENDRA A PARAMAJ	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
72	0369	MR. MANIK S PATIL	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
73	1739	MR. VIJAY A PATIL	41	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
74	7403	MR. SOURABH R CHOUGALE	23	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
75	1928	MR. DATTATRAY P YARGITI	44	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
76	0544	MR. SUBHASH S GOTKHINDE	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४८ च्या कलम १०(२) अन्वये
कोल्हापूर जिल्हाकरिता

HEALTH REGISTER

From: 03/09/2021 To 02/09/2022

Certifying Surgeon

DR. ARVIND MANE

MBBS DPH AFIH.(Mumbai)

Company Name : JAWAHAR SHETKARI SAHAKARI KARKHANA LTD.

Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharge	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of unfitness or suspension issued to worker	Signature with gate certifying surgeon.
1402	MR. SURESH B PAJARE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1902	MR. SIDDHU S MUDHALE	39	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1886	MR. ASHOK G CHOUGALE	45	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
6230	MR. BABAN B DESAI	59	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1767	MR. JIVENDER V KAMBLE	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7477	MR. SANTOSH S PUJARI	22	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7028	MR. ABHINANDAN M GIRMAL	29	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1346	MR. PARGONDA N PATIL	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7131	MR. SUJIT S RANGOLE	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7023	MR. RANJIT R FIRAGANNAVAR	29	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7137	MR. FIROJ B NAIKWADE	40	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1946	MR. DHANAJI M CHAVAN	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1778	MR. PRAVIN M GHAT	42	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
2040	MR. SWAPNIL B CHOUGALE	34	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7242	MR. SOURABH J GIBHISE	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1359	MR. VRUSHABH A AITVADE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1612	MR. ANIL K KAMBLE	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
0416	MR. SHARAD B PATIL	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
1834	MR. DAVAL M SHAIKH	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४८ च्या कलम २०(२) प्रमाणे
कोल्हापूर जिल्हाकरिता

HEALTH REGISTER

From: 03/09/2021 To 02/09/2022

DR. ARVIND MANE
MBBS DPH AFIH.(Mumbai)

Company Name : JAWAHAR SHETKARI SAHAKARI KARKHANA LTD.

Sr. No.	Emp. No.	Name	Age	Sex	Dept of employment of present work	Date of leaving or transfer to other work	Reason for leaving Transfer of discharge	Nature of job or occupation	Raw material or bye product handled	Exam. Date	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Certified fit to resume duty on with signature of Certifying Surgeon	If Certificate of unfitness or suspension issued to worker	Signature with gate certifying surgeon.
06	2009.	MR. JAVED A MUJAWAR	38	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
07	1248	MR. SUBHASH A GOTKHINDE	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
08	7027	MR. SACHIN A BRGALE	28	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
09	1475	MR. SUNIL A TASHILDAR	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
00	1717	MR. RAJU P UPADHYE	43	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
01	1709	MR. ANIL A PATIL	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
02	0157	MR. BALERAM A MANE	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
03	7351	MR. RUTESH V CHANVIRE	21	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
04	992	MR. BABURAO A KAMTE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
05	1921	MR. RAVINDRA P KARANJE	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
06	0802	MR. DATTATRAY G KHEDKAR	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
07	2232	MR. RAJARAM V PAWAR	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
08	0058	MR. SATAPPA U CHOUGULE	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
09	7144	MR. PRAKASH N KAMBLE	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
10	1240	MR. ARUN K PATIL	46	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
11	7412	MR. AJIT R BANDGR	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
12	2120	MR. SANJEEVAN B VAJAMKAR	58	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
13	7032	MR. SANDIP S CHOPADE	26	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
14	1374	MR. SARJERAO V CHOUGULE	58	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४७ च्या कलम १०(२) प्रमाणे
कोल्हापूर जिल्हाकरिता

HEALTH REGISTER

DR. ARVIND MANE
MBBS DPH AFHL (Mumbai)

From: 03/09/2021 To 02/09/2022

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5	6068	MR. KALPESH K KAPSE	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
6	705	MR. DEEPAK KOTHAWALE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
7	2029	MR. YUVRAJ A GANAKE	32	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
8	7024	MR. SAGAR H NAIK	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
9	2094	MR. NAVNATH A MUDHALE	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
10	0815	MR. KUBER J SOUNDATTE	55	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
11	637	MR. ASHOK D MANE	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
12	2030	MR. SUNIL M KIRUNGE	32	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
13	1100	MR. KALLAPPA R CHOUGULE	53	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
14	1976	MR. SHRENIK B KOLHAPURE	45	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
15	7451	MR. HEMANT R PATIL	24	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
16	1075	MR. RAOSAHEB V MAJGAVKAR	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
17	2128	MR. VAIBHAV PATIL	30	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
18	173	MR. BAPU H MANGALEKAR	54	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
19	1006	MR. SANJAY M KUDALKAR	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
20	1599	MR. TANAJI S WALKE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
21	1447	MR. PRABHAKAR S KUMBHAR	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
22	0411	MR. YASHWANT R BOGADE	57	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
23	0627	MR. SANJAY B KOLI	47	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे
कोल्हापूर जिल्हाकरिता

HEALTH REGISTER

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34	0803	MR. ASLAM B NADAF	56	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
35	1780	MR. RAJENDRA R SHINDE	43	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
36	1594	MR. BIRU LATE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
37	1696	MR. GAJANAN DAKE	42	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
38	2222	MR. KIYAVLYA R SHASTRI	25	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
39	1708	MR. MAHADEV M MAGDUM	42	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
40	1683	MR. AMOL B HERWADE	43	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
41	1770	MR. UTTAM R VADD	40	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
42	2207	MR. NIRANJAN P POWAR	27	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
43	0987	MR. VIJAY B HANDE	50	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
44	1007	MR. ANNASO D PARIT	59	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
45	1984	MR. SHRIRANG R CHOUGULE	33	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
46	7303	MR. SANTOSH S BHANSE	23	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
47	1754	MR. BHRAT S GHUNKE	41	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
48	0927	MR. MAHADEV B KORAVI	49	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
49	6042	MR. SURAJ D PATIL	29	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
50	871	MR. SHANKR M SUTAR	48	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
51	1111	MR. SHAHAJI B NIMBALKAR	52	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	
52	1437	MR. SADIK I MUJAWAR	51	M	-	NA	NA			03/09/2021	Fit	NA	Fit	NA	

कारखाने अधिनियम १९४८ च्या कलम १०(२) प्रमाणे

कोल्हापूर जिल्हाकरिता

Annexure III
Details of Firefighting & Mock drill

Photographs of firefighting system



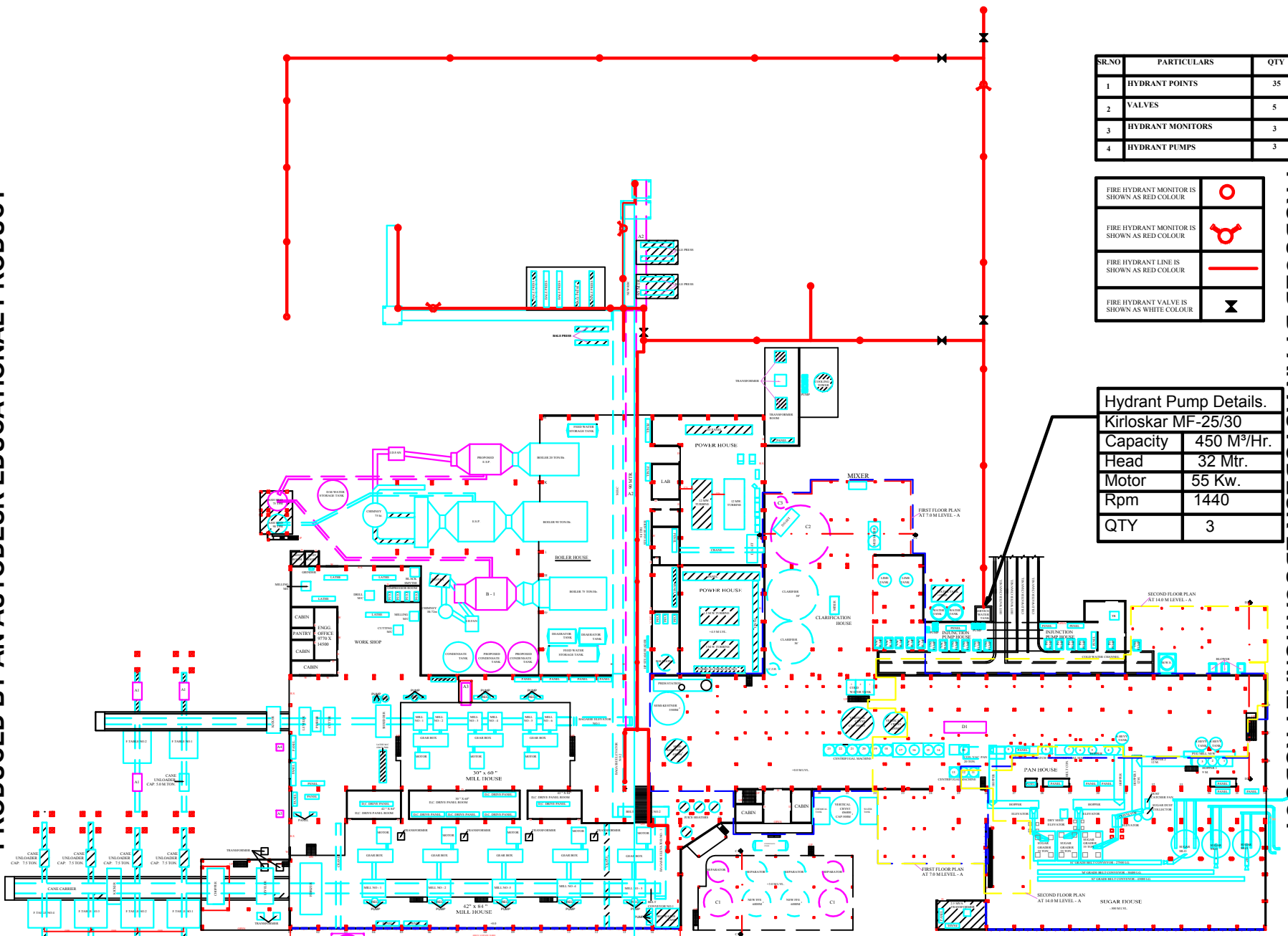
PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

SR.NO	PARTICULARS	QTY
1	HYDRANT POINTS	35
2	VALVES	5
3	HYDRANT MONITORS	3
4	HYDRANT PUMPS	3

FIRE HYDRANT MONITOR IS SHOWN AS RED COLOUR	
FIRE HYDRANT MONITOR IS SHOWN AS RED COLOUR	
FIRE HYDRANT LINE IS SHOWN AS RED COLOUR	
FIRE HYDRANT VALVE IS SHOWN AS WHITE COLOUR	

Hydrant Pump Details.	
Kirloskar MF-25/30	
Capacity	450 M ³ /Hr.
Head	32 Mtr.
Motor	55 Kw.
Rpm	1440
QTY	3



GROUND FLOOR PLAN - A
SCALE: 1 : 200

JAWAHAR S.S.S.K.LTD.		HUPARI	
TAL. HATRANANGALE, DIST. KOLHAPUR	STATE	DATE	SCALE
SUBJECT: FIRE HYDRANT SYSTEM	PROJECT NO.	DATE	SCALE
TENTATIVE ENGINEERING LAY-OUT OF THE FIRE HYDRANT SYSTEM	PROJECT NO.	DATE	SCALE
MF/SKETCH/21	0		

जवाहर शेतकरी सहकारी साखर कारखाना लि., हुपरी

श्री. कल्लाप्पाणा आवाडेनगर, हुपरी-यळगूड ४१६ २०३, ता.हातकणंगले, जि.कोल्हापूर (महाराष्ट्र)

फोन नं.(०२३०) २४५०४०२, फॅक्स नं. (०२३०) २४५०४०१ तार : JAWAHARSSK

E-mail : korissk@gmail.com

मॉकड्रिल रिपोर्ट

अ. नं.	संबंधित बाब	तपशिल														
१.	मॉकड्रिलचा विषय	कारखान्याच्या गोडावून नं.१० च्या समोरील बाजूस गॅस कर्टींगने पाईपचे कर्टींग करत असतांना आग लागलेल्या अपघाताचे प्रात्यक्षिक.														
२.	मॉकड्रिलचा प्रकार	फायर ड्रिल														
३.	आयोजक	ईंजिनअरींग व सुरक्षा विभाग														
४.	मॉकड्रिलचे वेळापत्रक	दि.२५-०१-२०२२, वेळ सकाळी ११-३० ते दु.१२-००														
५.	स्थळ	कारखान्याचे गोडावून नं.१०														
६.	घटनेचे वर्णन	कारखान्याच्या गोडावून नं.१० च्या समोरील बाजूस कारखान्याचे वेल्डर श्री.अक्षय शेटके हे गॅस कटरने पाईप कट करण्याचे काम करत असतांना आग लगली. सदर घटनेची त्वरीत कल्पना सुरक्षा अधिकारी व सुरक्षा कर्मचारी यांना देण्यांत आली व आग विझविण्याची प्रक्रिया तातडीने सुरु केली गेली. दरम्यान आगीमुळे इजा झालेल्या कर्मचाऱ्याला उपचारासाठी कारखान्याच्या वैद्यकिय केंद्रामध्ये दाखल करण्यांत आले. अपघाताच्या रंगीत तालीमनंतर सर्व कर्मचाऱ्यांना सुरक्षितते विषयी मार्गदर्शन करण्यांत आले व रंगीत तालीम पूर्ण झालेची अधिकृत घोषणा करण्यांत आली.														
६.	दुर्घटनेचे संभाव्य धोके	<table border="1"> <tr> <td>सामाजिक परिणाम</td> <td>नाही</td> </tr> <tr> <td>मालमत्तेचे नुकसान</td> <td>होय.</td> </tr> <tr> <td>पर्यावरणाचे नुकसान</td> <td>होय.</td> </tr> <tr> <td>पायाभुत सुविधांचे नुकसान</td> <td>होय.</td> </tr> <tr> <td>व्यवसायावरील परिणाम</td> <td>होय.</td> </tr> <tr> <td>शारिरीक धोके</td> <td>संभाव्य स्वरुपात.</td> </tr> <tr> <td>मानसिक परिणाम</td> <td>आहे.</td> </tr> </table>	सामाजिक परिणाम	नाही	मालमत्तेचे नुकसान	होय.	पर्यावरणाचे नुकसान	होय.	पायाभुत सुविधांचे नुकसान	होय.	व्यवसायावरील परिणाम	होय.	शारिरीक धोके	संभाव्य स्वरुपात.	मानसिक परिणाम	आहे.
सामाजिक परिणाम	नाही															
मालमत्तेचे नुकसान	होय.															
पर्यावरणाचे नुकसान	होय.															
पायाभुत सुविधांचे नुकसान	होय.															
व्यवसायावरील परिणाम	होय.															
शारिरीक धोके	संभाव्य स्वरुपात.															
मानसिक परिणाम	आहे.															
७.	ग्रुप व टीम	<table border="1"> <tr> <td>फायर फायटींग टीम :</td> <td>श्री. हिंदुराव निवृत्ती पाटील श्री. रमेश सिध्दु पाटील श्री. श्रवय जयवंत हेगडे</td> </tr> <tr> <td>फायर पिकेट टीम :</td> <td>श्री. अशोक फक्कड पाटील श्री. मल्लाप्पा देवाप्पा खडके श्री. संभाजी परशुराम पाटील</td> </tr> <tr> <td>सालव्हेज टीम :</td> <td>श्री. शुभम धोंडीराम बट्टे श्री. संजय रामचंद्र झांजगे श्री. दत्तात्रय विठ्ठल तुरंबे</td> </tr> <tr> <td>रिझर्व्ह टीम :</td> <td>श्री. मोहन जयंत हेगडे श्री. लक्ष्मण भाऊसो बंके श्री. दिलीप पांडूरंग सुतार श्री. दिलावर दादाहयात भाई श्री. सिध्दार्थ महादेव खोत</td> </tr> </table>	फायर फायटींग टीम :	श्री. हिंदुराव निवृत्ती पाटील श्री. रमेश सिध्दु पाटील श्री. श्रवय जयवंत हेगडे	फायर पिकेट टीम :	श्री. अशोक फक्कड पाटील श्री. मल्लाप्पा देवाप्पा खडके श्री. संभाजी परशुराम पाटील	सालव्हेज टीम :	श्री. शुभम धोंडीराम बट्टे श्री. संजय रामचंद्र झांजगे श्री. दत्तात्रय विठ्ठल तुरंबे	रिझर्व्ह टीम :	श्री. मोहन जयंत हेगडे श्री. लक्ष्मण भाऊसो बंके श्री. दिलीप पांडूरंग सुतार श्री. दिलावर दादाहयात भाई श्री. सिध्दार्थ महादेव खोत						
फायर फायटींग टीम :	श्री. हिंदुराव निवृत्ती पाटील श्री. रमेश सिध्दु पाटील श्री. श्रवय जयवंत हेगडे															
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रिझर्व्ह टीम :	श्री. मोहन जयंत हेगडे श्री. लक्ष्मण भाऊसो बंके श्री. दिलीप पांडूरंग सुतार श्री. दिलावर दादाहयात भाई श्री. सिध्दार्थ महादेव खोत															

अ. नं.	संबंधित बाब	तपशिल	
८.	वापरलेल्या तंत्र व पध्दती	फायर ऑपरेशन्स	फायर्टींग रेसक्यु ऑपरेशन्स
		फायर ऑपरेशन्स	पिकेट रिझर्व्ह ऑपरेशन्स
		सालव्हेज ऑपरेशन्स	
९.	सभासदांची नांवे	श्री. भाऊसो हरीबा डोंगरे, श्री. संतोष गवळी, श्री. भारत वंदूरे, श्री. अक्षय शेटके व श्री. अजित पाटील	
१०.	वापरलेले इक्विमेंट्स, टुल्स व मटेरियल	वैयक्तिक सुरक्षा उपकरणे	अपातकालीन ध्वज
		सॅण्ड बकेट	सायरन
		आग्निशमन यंत्र	लोकरीचे कापड
		आग्निशामक वाहन	विल्हेवाट लावण्यासाठी व मटेरियल वेगळे करण्यासाठी वापरात येणारी यंत्रसामुग्री
		रुग्णवाहिका	स्ट्रेचर

घटनेसंदर्भात वेळेचे परिमाणात्मक विश्लेषण :

अ. क्र.	घटनाक्रम	लागलेला कालावधी	प्रतिसादाचा कालावधी
१.	दुर्घटना घडलेची वेळ	११-४० वा.	
२.	सुरक्षा विभागाला दुर्घटना घडलेल्याचे कळविले	११-४२ वा.	२ मिनिट
३.	सायरन वाजवून सर्व कामगारांना दुर्घनेविषयी सावधतेचा ईशारा दिला	११-४३ वा	३ मिनिट
४.	सेफ्टी ऑफिसर सुरक्षा विभागातील कर्मचाऱ्यांसह घटना स्थळी पोहोचले	११-४६ वा.	६ मिनिट
५.	फायर ब्रिगेड घटनास्थळी पोहोचले	११-४६ वा.	६ मिनिट
६.	रुग्णवाहिका घटना स्थळी पोहोचली	११-४८ वा.	८ मिनिट
७.	आग विझविण्याचे काम सुरु झाले	११-४९ वा.	९ मिनिट
८.	दुर्घटना पिडीताला रेसक्यु टीमने सुरक्षित बाहेर काढले.	११-५१ वा.	११ मिनिट
९.	आग विझविण्याचे काम पूर्ण झाले व परिस्थिती नियंत्रणात आली.	११-५३ वा.	१३ मिनिट
१०.	रुग्णवाहिका पिडीताला घेऊन कारखान्याच्या रुग्णालयात घेऊन पोहोचली	११-५५	१५ मिनिट
११.	पिडीताला योग्य ते उपचार देणेत आले	११-५८	१८ मिनिट
१२.	सर्व कर्मचाऱ्यांना सुरक्षिततेविषयी सुचना व योग्य ते मार्गदर्शन करण्यांत आले	११-५९	१९ मिनिट
१३.	मॉकड्रिल पूर्ण झाल्याची घोषणा अधिकृत अधिकाऱ्यांच्याकडून करण्यांत आली	१२-०१	२१ मिनिट

मॉकड्रिल मुल्यांकन पत्रिका :

अ. क्र.	मुल्यांकनाचे मुद्दे	NA	YES	NO	शेरा
१.	सर्व सहभागी झालेल्या कर्मचाऱ्यांना घटनेच्या संभाव्य धोक्याविषयी कल्पना होती का ?		✓		--
२.	प्रत्येक संघातील सहभागी सभासदांना घटनेविषयीच्या त्यांच्या जबाबदारीची पूर्व कल्पना होती का ?		✓		--
३.	सर्व कर्मचारी व सभासद यांना घटनेच्या दरम्यान वापरावयाच्या सुरक्षिततेच्या पध्दती व तंत्र यांची माहिती पूर्वीपासून दिली होती का ?		✓		--
४.	घटनेच्या दरम्यान सुरक्षा विभागातील कोणत्याही कर्मचाऱ्यांमध्ये शारिरीक त्रुटी आढळून आली आहे का ?			✓	--
५.	घटनेच्या दरम्यान सुरक्षा विभागातील कोणत्याही कर्मचाऱ्यांमध्ये मानसिक त्रुटी आढळून आली आहे का ?			✓	--
६.	सर्व उपकरणे व सुरक्षा साधणे हे घटनेच्या वेळेस त्यांच्या योग्य ठिकाणी उपलब्ध झाले का ?		✓		
७.	सर्व उपकरणे व सुरक्षा साधणे हे व्यवस्थित काम करत होते का ?		✓		--
८.	एखाद्या सुरक्षा उपकरणामध्ये अथवा साधनांमध्ये बदल करावयाची गरज आहे का ?			✓	--
९.	घटना स्थळी असे कोणते मटेरियल होते का ज्यामुळे धोक्याची तिवर्ता वाढू शकेल		✓		होय, क्लिनिंगसाठी वापरण्यांत येणारे कॉटन वेस्ट तसेच कांही प्रमाणात अॅग्री वेस्ट घटना स्थळी होते.
१०.	अशा प्रकारचे मटेरियल घटना स्थळा पासून दूर सुरक्षिततेच्या ठिकाणी वेगळे करून ठेवण्यांत आले का ?		✓		होय, मटेरियल सुरक्षित स्थळी हलविण्यांत आले.
११.	घटनेच्या दरम्यान अमलात आणलेली अशी कोणती पध्दती आहे का ज्यामध्ये कालानुरूप व परिस्थितीप्रमाणे बदल करावयाची गरज आहे ?			✓	--
१२.	संदेश व दळणवळणाच्या कोणत्याही पध्दतीमध्ये त्रुटी जाणवली आहे का ?			✓	--
१३.	संबंधित घटनेमध्ये कोणत्याी प्रकारचे असामान्य अपातकालीन परिस्थिती उद्भवण्याची शक्यता आहे का ?	✓			--
१४.	अशा पध्दतीची असामान्य अपातकालीन शक्यता लक्षात घेऊन त्या पध्दतीचे नियोजन करण्यांत आले आहे का ?	✓			--

निरीक्षण व अनुमान :

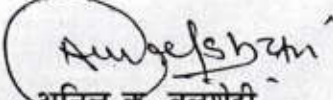
- १) आग विझविण्याच्या प्रक्रियेवेळी कांही कामगारांनी सुरक्षा संसाधनांचा (उदा. : सेप्टी गॉगल, रेस्पिरेटरी मास्क इ.) वापर न केल्याचे आढळून आले.
- २) वेल्डींगचे अथवा कर्टींगचे काम चालू करण्यापूर्वी सुरक्षिततेच्या दृष्टीने सदर परिसराची योग्य ती स्वच्छता करून घेणे आवश्यक होते.

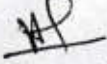
करावयाचे सुधारात्मक उपाय :

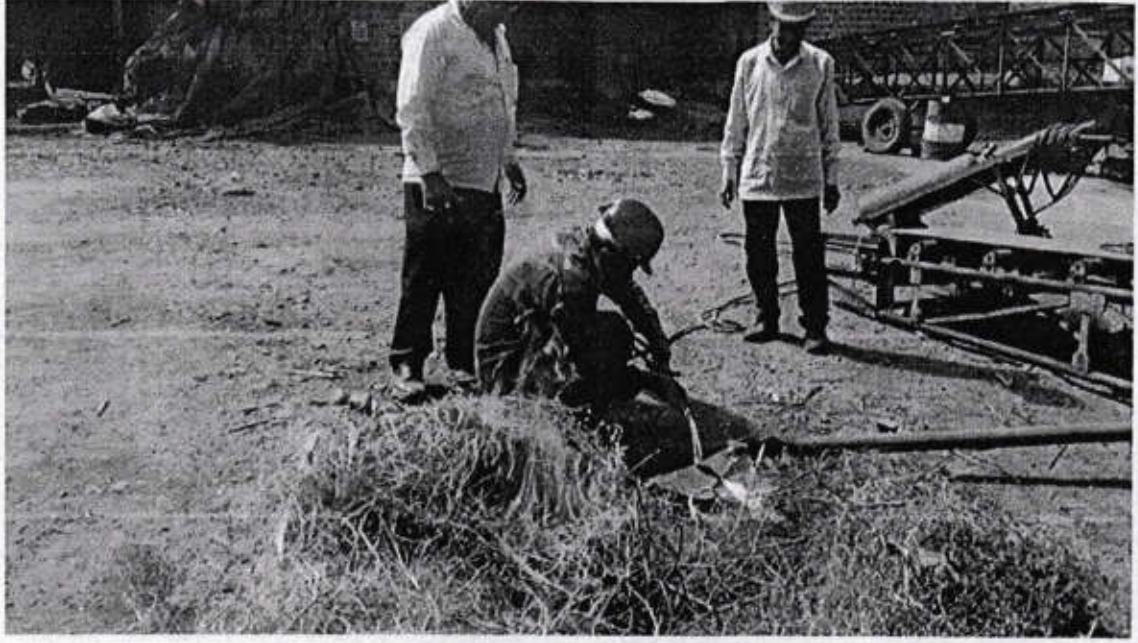
- १) आग विझविण्याच्या प्रक्रियेवेळी कांही कामगार सुरक्षा संसाधनांचा वापर न केल्याचे आढळून आले. तरी सुरक्षा संसाधनांचा वापर करण्यांस कोणत्याही अडचणी आहेत व आपण याबाबत काय सुधारणा करू शकतो याचा आराखडा तयार गरजेचे आहे.
- २) वेल्डींगचे अथवा कर्टींगचे काम चालू करण्यापूर्वी सदर परिसराची सुरक्षिततेच्या दृष्टीने योग्य ती स्वच्छता करून घेण्यासाठी चेक लिस्ट तयार करणे व त्याप्रामणे कामाची अंमलबजावणी होते किंवा नाही याची पडताळणी करणे गरजेचे आहे.

दिनांक :

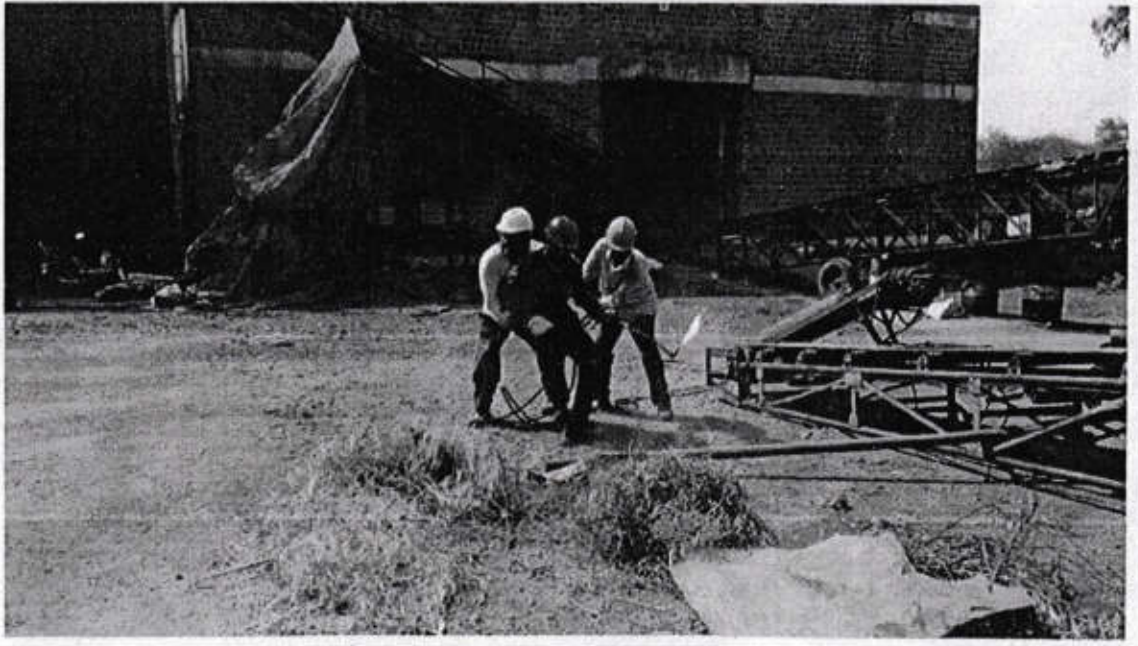
वेळ :


अनिल क. वलशेट्टी
लेबर अॅण्ड वेल्फेअर ऑफिसर


विकास शि. कवडे
चीफ इंजिनियर अॅण्ड फॅक्टर मॅनेजर



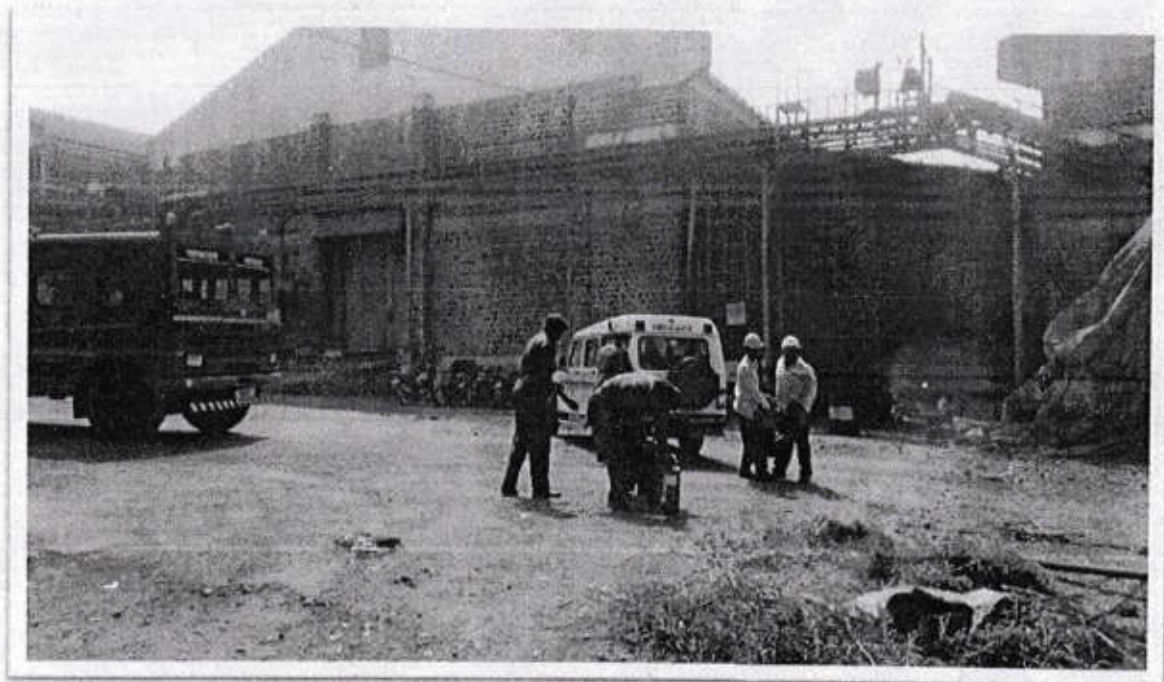
कारखान्याचे वेल्डर श्री. अक्षय शेटके हे कर्टींगचे काम करत असतांना आग लागली असे प्रात्यक्षिकात दाखविण्यांत आले.



कारखान्याचे वेल्डर श्री. अक्षय शेटके यांना आगी पासून सावध करत असतांना

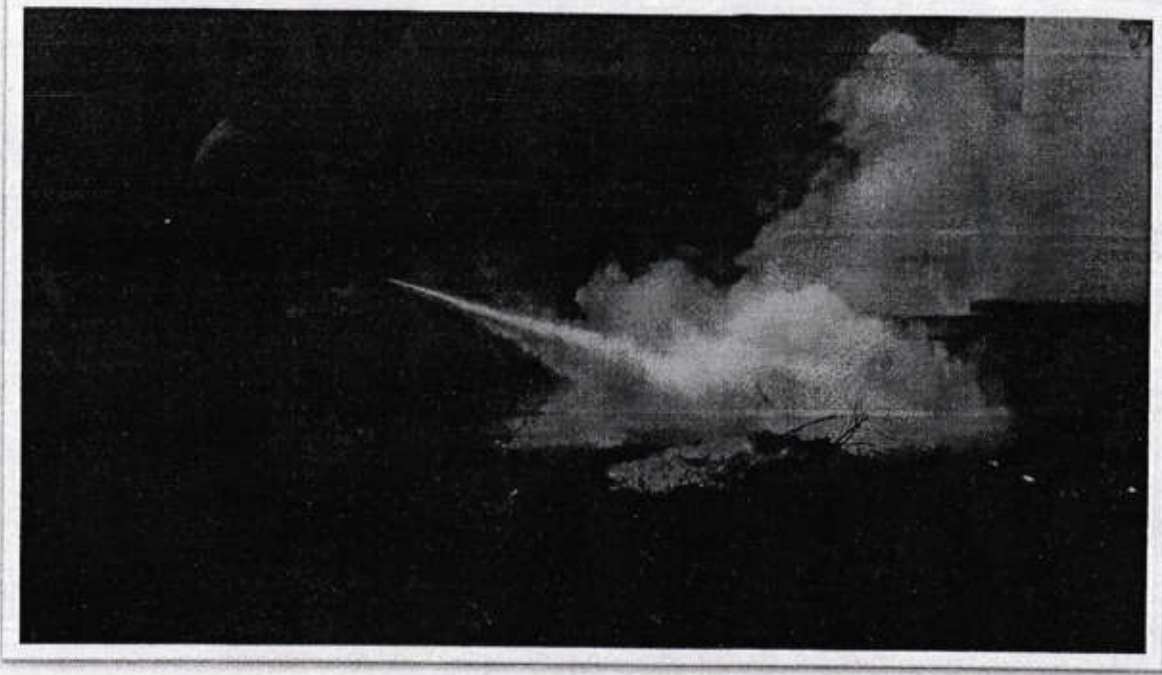


कटींगचे काम करत असतांना लागलेली आग

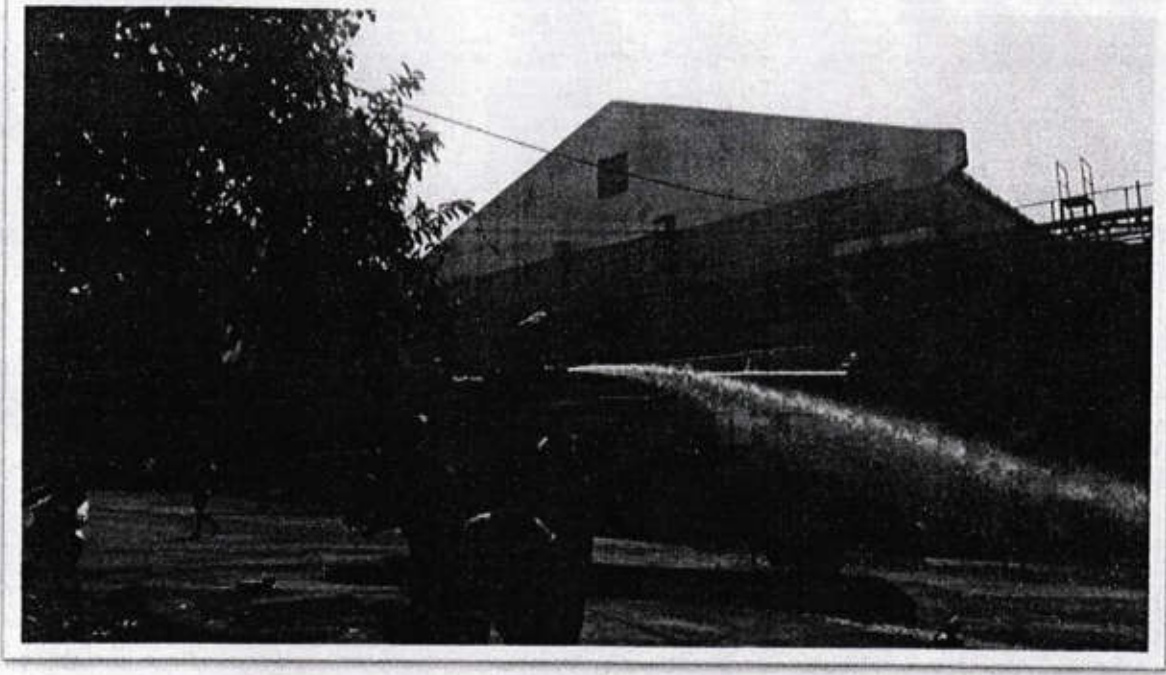


कारखान्याचे सुरक्षा कर्मचाऱ्यांनी आग विझविण्याचे काम तातडीने सुरु केले

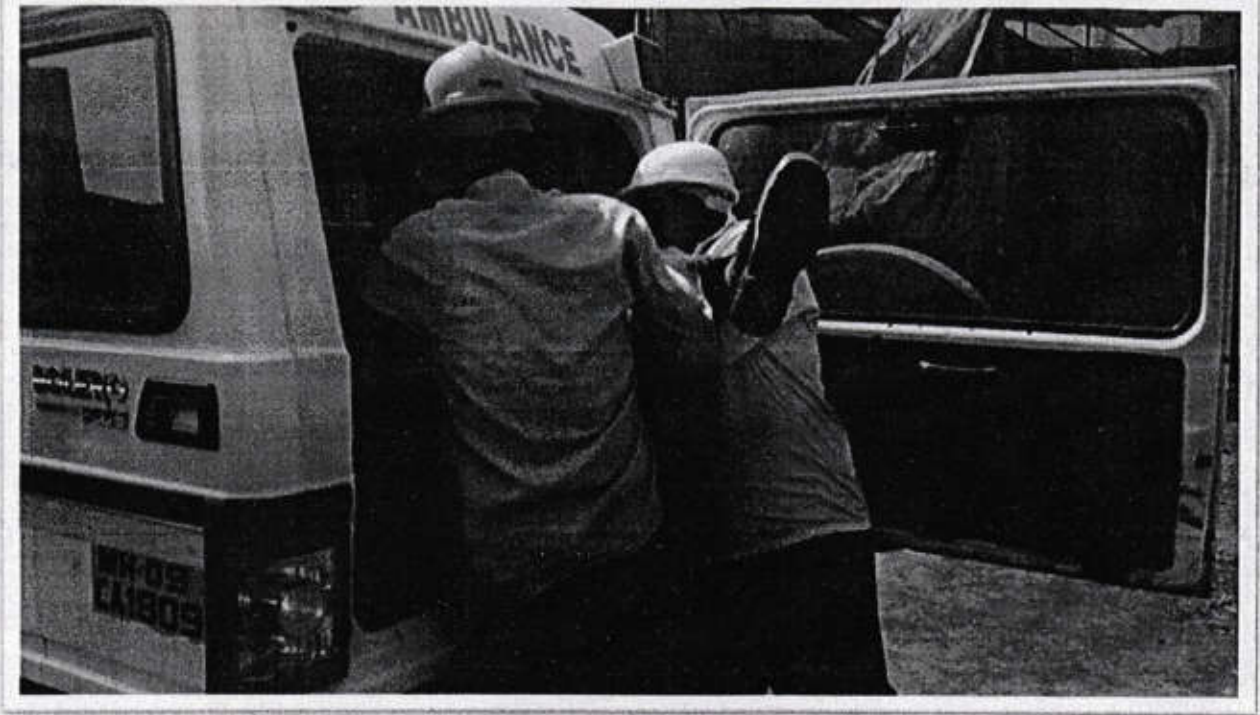
आग विझविण्याचे काम चालु असतांनाचे छायाचित्रे



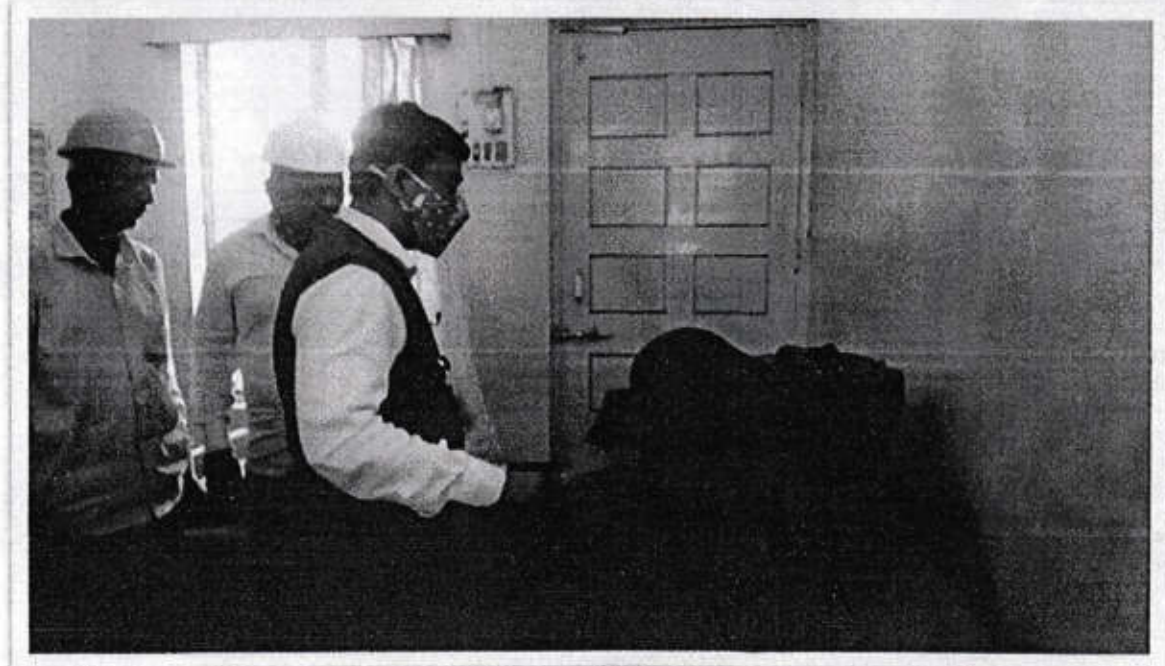
आग विझविण्याचे काम चालु असतांनाचे छायाचित्रे



आग लागल्यामुळे इजा झालेले कर्मचारी श्री. अक्षय शेटके यांना उपचारासाठी अॅम्बुलन्समधून
औषधोपचारासाठी घेऊन जात असतांना



आगीमुळे इजा झालेले कर्मचारी श्री. अक्षय शेटके यांना कारखान्याच्या दवाखान्यात औषधोपचार
करततांना कारखान्याचे वैद्यकिय अधिकारी श्री. मानेसाो



आग लागलेल्या प्रात्यक्षिकामध्ये सहभागी झालेले कारखान्याचे अधिकारी व कर्मचारी



Annexure IV
Monitoring Reports

DATE: DECEMBER 02, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/848
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	24.11.2021

RESULTS

SR. NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Main Gate	
02	Time of Sampling	03:00 P.M.	
03	Ambient Temperature	31.0 °C	
04	Dry Bulb Temperature	31.0 °C	
05	Wet Bulb Temperature	26.0 °C	
06	Relative Humidity	67.3 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	62.33 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	18.69 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	28.95 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 16th November 2009.

ANALYZED BY-



AUTHORIZED SIGNATORY



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6. MoEF approved Lab by Govt. of India. From date: 09/02/2017 to 08/02/2022.

DATE: DECEMBER 02, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/849
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	24.11.2021

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near ETP	
02	Time of Sampling	03:10 P.M.	
03	Ambient Temperature	31.0 °C	
04	Dry Bulb Temperature	31.0 °C	
05	Wet Bulb Temperature	26.0 °C	
06	Relative Humidity	67.3 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	59.23 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	14.92 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	16.77 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

ANALYZED BY- 	 GREEN ENVIROSAFE PUNE Engineers & Consultant Pvt. Ltd.	AUTHORIZED SIGNATORY 
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DATE: DECEMBER 02, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/850
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	24.11.2021

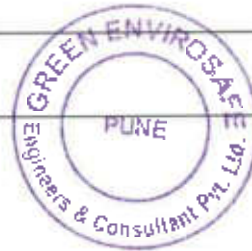
RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Cane Yard	
02	Time of Sampling	03:20 P.M.	
03	Ambient Temperature	30.0 °C	
04	Dry Bulb Temperature	30.0 °C	
05	Wet Bulb Temperature	26.0 °C	
06	Relative Humidity	72.9 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	65.83 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	19.60 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	23.51 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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DATE: DECEMBER 02, 2021

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/851
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	24.11.2021
Time :	03:30 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 1 (90+20 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	75 M
04	Type of Stack	Round
05	Flue Gas Temperature	160°C (433 K)
06	Differential Pressure	2.00 mm Wg
07	Velocity	5.59 m/sec
08	Stack Diameter	4.73 m
09	Stack Area	17.5627 m ²
10	Gas Volume	243542.35 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	43.83 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	25.10 mg/Nm ³
		146.71 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

ANALYZED BY-		AUTHORIZED SIGNATORY
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[Signature]



[Signature]

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6. MoEF approved Lab by Govt. of India. From date: 09/02/2017 to 08/02/2021.



DATE: DECEMBER 02, 2021

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/852
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	Ap.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	24.11.2021
Time :	04:40 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 2 (75 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	72 M
04	Type of Stack	Round
05	Flue Gas Temperature	155 °C (428 K)
06	Differential Pressure	200 mm Wg
07	Velocity	5.56 m/sec
08	Stack Diameter	3.00 m
09	Stack Area	7.0650 m ²
10	Gas Volume	98540.96 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	41.66 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	21.70 mg/Nm ³ 51.32 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

ANALYZED BY- 		AUTHORIZED SIGNATORY 
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DATE: DECEMBER 02, 2021

AMBIENT NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/853
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	24.11.2021.
Time:	05:00 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	LIMIT dB(A)
01	Near Main Gate	64.7	75
02	Near ETP	61.2	75
03	Near Bagass Section	67.0	75
04	Near Sugar Godown	64.8	75
05	Near Cane Yard	69.5	75

Note:

- Maharashtra Pollution Control Board (MPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time

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- MoEF approved Lab by Govt. of India, From date: 09/02/2017 to 08/02/2022.



Recognised by Ministry of Environment, Forest & Climate Change (MoEF) Govt. of India and ISO 9001:2015, ISO 45001 : 2018 Certified Company

DATE: DECEMBER 02, 2021

WORKZONE NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/11/854
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	24.11.2021.
Time:	05:40 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	LIMIT dB(A) (Refer Note Below)
01	Centrifugal Section	85.1	90
02	Turbine Section	87.2	90
03	Boiler Section	82.4	90
04	Mill Section	83.3	90
05	Pan Section	86.0	90

Note:

- The Factories' Act, 1948 has prescribed Noise Level threshold limit for 8 hours' exposure as 90 dB (A).

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DATE: DECEMBER 02, 2021

EFFLUENT SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/11/855
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Location:	Effluent Treatment Plant.
Plant Condition:	ETP in Operation.
Date of Sampling:	24.11.2021.
Analysis Date:	25.11.2021
Sample Name:	Industrial Effluent – Untreated & Treated

RESULTS

SR. NO.	TEST DESCRIPTION	UNTREATED	TREATED	MPCB LIMIT	UNIT
01	pH	3.41	7.02	6.5-8.5	–
02	Suspended Solids (SS)	165.95	15.38	100	mg/lit
03	Total Dissolved Solids (TDS)	3562.10	729.63	2100	mg/lit
04	Chemical Oxygen Demand (COD)	3084.95	59.95	250	mg/lit
05	Biochemical Oxygen Demand (BOD)	1275.44	21.77	100	mg/lit
06	Chlorides as Cl ⁻	825.69	125.41	600	mg/lit
07	Sulphates as SO ₄ ²⁻	761.90	101.92	1000	mg/lit
08	Oil & Grease	12.00	BDL	10	mg/lit

Note:

- BDL: Below Detectable Limit.

ANALYZED BY-



AUTHORIZED SIGNATORY

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DATE: DECEMBER 27, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1391
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	18.12.2021

RESULTS

SR. NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Main Gate	
02	Time of Sampling	09:20 A.M.	
03	Ambient Temperature	22.0 °C	
04	Dry Bulb Temperature	22.0 °C	
05	Wet Bulb Temperature	15.0 °C	
06	Relative Humidity	46.7 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	65.13 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	24.92 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	30.77 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

ANALYZED BY- 		AUTHORIZED SIGNATORY- 
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DATE: DECEMBER 27, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1392
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	18.12.2021

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near ETP	
02	Time of Sampling	09:30 A.M.	
03	Ambient Temperature	22.0 °C	
04	Dry Bulb Temperature	22.0 °C	
05	Wet Bulb Temperature	15.0 °C	
06	Relative Humidity	46.7 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	61.86 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	17.54 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	20.91 µg/cum	80 µg/cum

Note:

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- MoEF approved Lab by Govt. of India. From date 09/02/2017 to 08/02/2022.

DATE: DECEMBER 27, 2021

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1393
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	18.12.2021

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Cane Yard	
02	Time of Sampling	09:45 A.M.	
03	Ambient Temperature	23.0 °C	
04	Dry Bulb Temperature	23.0 °C	
05	Wet Bulb Temperature	15.0 °C	
06	Relative Humidity	41.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	67.13 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	22.87 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	25.61 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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DATE: DECEMBER 27, 2021

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1394
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	18.12.2021
Time :	10:00 A.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 1 (90+20 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	75 M
04	Type of Stack	Round
05	Flue Gas Temperature	175°C (448 K)
06	Differential Pressure	3.50 mm WG
07	Velocity	7.52 m/sec
08	Stack Diameter	4.73 m
09	Stack Area	17.5627 m ²
10	Gas Volume	316736.76 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	45.66 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	29.50 mg/Nm ³
		224.25 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

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DATE: DECEMBER 27, 2021

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1395
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	18.12.2021
Time :	11:15 A.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 2 (75 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	72 M
04	Type of Stack	Round
05	Flue Gas Temperature	170 °C (443 K)
06	Differential Pressure	3.00 mm Wg
07	Velocity	6.92 m/sec
08	Stack Diameter	3.00 m
09	Stack Area	7.0650 m ²
10	Gas Volume	118626.70 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	43.13 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	24.92 mg/Nm ³
		70.95 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

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DATE: DECEMBER 27, 2021

AMBIENT NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1396
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	18.12.2021.
Time:	12:30 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	LIMIT dB(A)
01	Near Main Gate	62.2	75
02	Near ETP	67.4	75
03	Near Bagass Section	66.8	75
04	Near Sugar Godown	66.1	75
05	Near Cane Yard	67.3	75

Note:

- Maharashtra Pollution Control Board (MPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time

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DATE: DECEMBER 27, 2021

WORKZONE NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/12/1397
Client :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	18.12.2021.
Time:	01:15 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	LIMIT dB(A) (Refer Note Below)
01	Centrifugal Section	85.9	90
02	Turbine Section	87.2	90
03	Boiler Section	87.9	90
04	Mill Section	84.8	90
05	Pan Section	82.3	90

Note:

- The Factories' Act, 1948 has prescribed Noise Level threshold limit for 8 hours' exposure as 90 dB (A).

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DATE: DECEMBER 27, 2021

EFFLUENT SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/12/1398
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Location:	Effluent Treatment Plant.
Plant Condition:	ETP in Operation.
Date of Sampling:	18.12.2021.
Analysis Date:	20.12.2021.
Sample Name:	Industrial Effluent – Untreated & Treated

RESULTS

SR. NO.	TEST DESCRIPTION	UNTREATED	TREATED	MPCB LIMIT	UNIT
01	pH	3.00	7.35	6.5-8.5	--
02	Suspended Solids (SS)	191.87	18.02	100	mg/lit
03	Total Dissolved Solids (TDS)	4268.71	1030.65	2100	mg/lit
04	Chemical Oxygen Demand (COD)	3214.92	61.47	250	mg/lit
05	Biochemical Oxygen Demand (BOD)	1495.60	23.05	100	mg/lit
06	Chlorides as Cl ⁻	910.44	230.69	600	mg/lit
07	Sulphates as SO ₄ ⁻	845.97	163.41	1000	mg/lit
08	Oil & Grease	11.00	BDL	10	mg/lit

Note:

- BDL: Below Detectable Limit.

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DATE: DECEMBER 27, 2021

RIVER WATER SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/12/1399
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Sampling Date:	18.12.2021.
Analysis Date:	20.12.2021.
Sample Name:	GSR-River

RESULTS

SR. NO.	TEST DESCRIPTION	RESULT	UNIT
01	pH	7.06	--
02	Colour	BDL	Hazen Unit
03	Odour	Agreeable	--
04	Electric Conductance	372.57	µS/cm
05	Turbidity	0.08	NTU
06	Total Dissolved Solids (TDS)	249.63	mg/lit
07	Chemical Oxygen Demand (COD)	11.52	mg/lit
08	Biochemical Oxygen Demand (BOD)	4.89	mg/lit
09	Chlorides as Cl ⁻	75.10	mg/lit
10	Alkalinity as CaCO ₃	35.69	mg/lit
11	Calcium as Ca	23.81	mg/lit
12	Magnesium as Mg	5.24	mg/lit
13	Total Hardness as CaCO ₃	81.04	mg/lit
14	Sodium as Na	5.62	mg/lit
15	Potassium as K	8.94	mg/lit

Note:

- BDL: Below Detectable Limit

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DATE: DECEMBER 27, 2021

RIVER WATER SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/12/1400
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.
Site:	A/p.: Hupari, Dist.: Kolhapur.
Sampling Date:	18.12.2021.
Analysis Date:	20.12.2021.
Sample Name:	GSR-River Recycled

RESULTS

SR. NO.	TEST DESCRIPTION	RESULT	UNIT
01	pH	7.13	--
02	Colour	BDL	Hazen Unit
03	Odour	Agreeable	--
04	Electric Conductance	441.54	µS/cm
05	Turbidity	0.15	NTU
06	Total Dissolved Solids (TDS)	295.84	mg/lit
07	Chemical Oxygen Demand (COD)	13.75	mg/lit
08	Biochemical Oxygen Demand (BOD)	5.21	mg/lit
09	Chlorides as Cl ⁻	84.13	mg/lit
10	Alkalinity as CaCO ₃	59.02	mg/lit
11	Calcium as Ca	25.90	mg/lit
12	Magnesium as Mg	7.55	mg/lit
13	Total Hardness as CaCO ₃	95.77	mg/lit
14	Sodium as Na	7.81	mg/lit
15	Potassium as K	11.09	mg/lit

Note:

- BDL: Below Detectable Limit

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DATE: DECEMBER 27, 2021

DRINKING WATER SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/12/1401
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Sampling Date:	18.12.2021.
Analysis Date:	20.12.2021.
Sample Name:	Drinking Water

RESULTS

SR.NO.	TEST DESCRIPTION	RESULTS	LIMITS As Per IS 10500:2012	UNIT
01	pH	7.92	6.5 - 8.5	----
02	Total Dissolved Solids (TDS)	125.41	500.00	mg/lit
03	Chlorides as Cl ⁻	25.19	250.00	mg/lit
04	Sulphates as SO ₄ ⁻	18.02	200.00	mg/lit
05	Calcium as Ca	12.79	075.00	mg/lit
06	Magnesium as Mg	1.88	030.00	mg/lit
07	Total Hardness as CaCO ₃	39.68	200.00	mg/lit
08	MPN	Absent	Absent	MPN/ml

Note:

- Drinking Water Indian Standards: IS 10500:2012 LIMITS.

ANALYZED BY- 	 GREEN ENVIROSAFE PUNE Engineers & Consultant Pvt. Ltd.	AUTHORIZED SIGNATORY- 
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DATE: JANUARY 20, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/766
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	13.01.2022

RESULTS

SR. NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Main Gate	
02	Time of Sampling	09:00 A.M.	
03	Ambient Temperature	21.0 °C	
04	Dry Bulb Temperature	21.0 °C	
05	Wet Bulb Temperature	16.0 °C	
06	Relative Humidity	59.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	63.36 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	24.87 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	27.64 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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6. MoEF approved Lab by Govt. of India. From date. 09/02/2017 to 08/02/2022.

DATE: JANUARY 20, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/767
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	13.01.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near ETP	
02	Time of Sampling	09:10 A.M.	
03	Ambient Temperature	21.0 °C	
04	Dry Bulb Temperature	21.0 °C	
05	Wet Bulb Temperature	16.0 °C	
06	Relative Humidity	59.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	62.86 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	19.51 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	23.67 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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- MoEF approved Lab by Govt. of India. From date, 09/02/2017 to 08/02/2022

DATE: JANUARY 20, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/768
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	13.01.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Cane Yard	
02	Time of Sampling	09:20 A.M.	
03	Ambient Temperature	21.0 °C	
04	Dry Bulb Temperature	21.0 °C	
05	Wet Bulb Temperature	16.0 °C	
06	Relative Humidity	59.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	65.66 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	24.89 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	28.01 µg/cum	80 µg/cum

Note:

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- MoEF approved Lab by Govt. of India. From date. 09/02/2017 to 08/02/2022

DATE: JANUARY 20, 2022

SOURCE EMISSION MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/769
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	13.01.2022
Time :	09:30 A.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 1 (90+20 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	75 M
04	Type of Stack	Round
05	Flue Gas Temperature	180°C (453 K)
06	Differential Pressure	3.00 mm WG
07	Velocity	7.00 m/sec
08	Stack Diameter	4.73 m
09	Stack Area	17.5627 m ²
10	Gas Volume	291618.43 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	39.66 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	21.50 mg/Nm ³
		150.48 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

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DATE: JANUARY 20, 2022

SOURCE EMISSION MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/770
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	13.01.2022
Time :	10:35 A.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 2 (75 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	72 M
04	Type of Stack	Round
05	Flue Gas Temperature	175 °C (448 K)
06	Differential Pressure	2.50 mm Wg
07	Velocity	6.35 m/sec
08	Stack Diameter	3.00 m
09	Stack Area	7.0650 m ²
10	Gas Volume	107684.87 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	42.33 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	20.45 mg/Nm ³
		52.85 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

ANALYZED BY- 		AUTHORIZED SIGNATORY 
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6. MoEF approved Lab by Govt. of India. From date, 09/02/2017 to 08/02/2022.

DATE: JANUARY 20, 2022

AMBIENT NOISE LEVEL MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/771
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	13.01.2022.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (11:45 A.M.)	Night (11:00 P.M.)
01	Near Main Gate	63.0	61.5
02	Near ETP	62.1	61.1
03	Near Bagass Section	64.5	63.9
04	Near Sugar Godown	60.9	58.4
05	Near Cane Yard	68.1	66.8
	LIMIT dB(A)	75	70

Note:

- Maharashtra Pollution Control Board (MPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time

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- MoEF approved Lab by Govt. of India. From date. 09/02/2017 to 08/02/2022

DATE: JANUARY 20, 2022

WORKZONE NOISE LEVEL MONITORING RESULTS

Client:	Equinox Environments (India) Pvt. Ltd., Kolhapur.
Report No.:	GESEC/PRO/2021-22/01/772
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	13.01.2022.
Time:	01:15 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (12:30 P.M.)	Night (12:00 A.M.)
01	Centrifugal Section	84.3	82.5
02	Turbine Section	86.1	84.9
03	Boiler Section	86.5	86.0
04	Mill Section	83.8	82.4
05	Pan Section	81.6	81.2
	LIMIT dB(A)	90	

Note:

- The Factories' Act, 1948 has prescribed Noise Level threshold limit for 8 hours' exposure as 90 dB (A).

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- MoEF approved Lab by Govt. of India. From date. 09/02/2017 to 08/02/2022.

DATE: JANUARY 20, 2022

EFFLUENT SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/01/773
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Location:	Effluent Treatment Plant.
Plant Condition:	ETP in Operation.
Date of Sampling:	13.01.2022.
Analysis Date:	14.01.2022.
Sample Name:	Industrial Effluent – Untreated & Treated

RESULTS

SR. NO.	TEST DESCRIPTION	UNTREATED	TREATED	MPCB LIMIT	UNIT
01	pH	3.60	7.52	6.5-8.5	--
02	Suspended Solids (SS)	159.87	20.43	100	mg/lit
03	Total Dissolved Solids (TDS)	3956.13	1254.87	2100	mg/lit
04	Chemical Oxygen Demand (COD)	2846.46	63.01	250	mg/lit
05	Biochemical Oxygen Demand (BOD)	1109.37	22.49	100	mg/lit
06	Chlorides as Cl ⁻	827.61	201.58	600	mg/lit
07	Sulphates as SO ₄ ²⁻	729.04	138.67	1000	mg/lit
08	Oil & Grease	14.00	BDL	10	mg/lit

Note:

- BDL: Below Detectable Limit.

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DATE: FEBRUARY 18, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/586
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022

RESULTS

SR. NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Main Gate	
02	Time of Sampling	12:30 P.M.	
03	Ambient Temperature	32.0 °C	
04	Dry Bulb Temperature	32.0 °C	
05	Wet Bulb Temperature	18.0 °C	
06	Relative Humidity	23.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	61.83 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	22.45 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	26.10 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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DATE: FEBRUARY 18, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/587
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near ETP	
02	Time of Sampling	12:40 P.M.	
03	Ambient Temperature	32.0 °C	
04	Dry Bulb Temperature	32.0 °C	
05	Wet Bulb Temperature	18.0 °C	
06	Relative Humidity	23.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	60.86 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	17.92 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	21.37 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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DATE: FEBRUARY 18, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/588
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Cane Yard	
02	Time of Sampling	12:50 P.M.	
03	Ambient Temperature	32.0 °C	
04	Dry Bulb Temperature	32.0 °C	
05	Wet Bulb Temperature	18.0 °C	
06	Relative Humidity	23.6 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	62.83 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	22.48 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	26.95 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No.B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

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DATE: FEBRUARY 18, 2022

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/589
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022
Time :	01:00 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 1 (90+20 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	75 M
04	Type of Stack	Round
05	Flue Gas Temperature	140°C (413 K)
06	Differential Pressure	3.50 mm WG
07	Velocity	7.22 m/sec
08	Stack Diameter	4.73 m
09	Stack Area	17.5627 m ²
10	Gas Volume	329884.91 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	35.63 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	17.04 mg/Nm ³
		134.91 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

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DATE: FEBRUARY 18, 2022

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/590
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022
Time :	02:00 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 2 (75 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	72 M
04	Type of Stack	Round
05	Flue Gas Temperature	135 °C (408 K)
06	Differential Pressure	3.00 mm Wg
07	Velocity	6.64 m/sec
08	Stack Diameter	3.00 m
09	Stack Area	7.0650 m ²
10	Gas Volume	123610.18 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	35.33 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	16.85 mg/Nm ³
		49.99 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

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DATE: FEBRUARY 18, 2022

AMBIENT NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/591
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (03:00 P.M.)	Night (11:30 P.M.)
01	Near Main Gate	64.4	60.8
02	Near ETP	63.7	61.5
03	Near Bagass Section	68.9	67.1
04	Near Sugar Godown	70.2	66.5
05	Near Cane Yard	69.9	67.9
	LIMIT dB(A)	75	70

Note:

- Maharashtra Pollution Control Board (MPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time

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DATE: FEBRUARY 18, 2022

WORKZONE NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/02/592
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	11.02.2022.
Time:	01:15 P.M.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (03:40 P.M.)	Night (12:50 A.M.)
01	Centrifugal Section	81.3	81.0
02	Turbine Section	87.4	83.2
03	Boiler Section	85.3	84.6
04	Mill Section	84.9	83.3
05	Pan Section	80.7	78.5
	LIMIT dB(A)	90	

Note:

- The Factories' Act, 1948 has prescribed Noise Level threshold limit for 8 hours' exposure as 90 dB (A).

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DATE: FEBRUARY 18, 2022

EFFLUENT SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/02/593
Industry:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	
Location:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition:	Effluent Treatment Plant.
Date of Sampling:	ETP in Operation.
Analysis Date:	11.02.2022.
Sample Name:	12.02.2022.
	Industrial Effluent – Untreated & Treated

RESULTS

SR. NO.	TEST DESCRIPTION	UNTREATED	TREATED	MPCB LIMIT	UNIT
01	pH	3.20	7.35	6.5-8.5	--
02	Suspended Solids (SS)	138.59	18.41	100	mg/lit
03	Total Dissolved Solids (TDS)	3526.14	1467.90	2100	mg/lit
04	Chemical Oxygen Demand (COD)	3021.63	70.56	250	mg/lit
05	Biochemical Oxygen Demand (BOD)	1275.90	25.01	100	mg/lit
06	Chlorides as Cl ⁻	910.64	165.75	600	mg/lit
07	Sulphates as SO ₄ ⁻	846.37	146.91	1000	mg/lit
08	Oil & Grease	12.00	BDL	10	mg/lit

Note:

- BDL: Below Detectable Limit.

ANALYZED BY- 		AUTHORIZED SIGNATORY 
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DATE: MARCH 15, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/598
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	08.03.2022

RESULTS

SR. NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Main Gate	
02	Time of Sampling	03:30 P.M.	
03	Ambient Temperature	33.0 °C	
04	Dry Bulb Temperature	33.0 °C	
05	Wet Bulb Temperature	20.0 °C	
06	Relative Humidity	29.1 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	63.83 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	24.01 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	27.95 µg/cum	80 µg/cum

Note:

- NAAQS - National Ambient Air Quality Standards, Central Pollution Control Board Notification, No. B - 29016 / 20 / 90 / PCI - I, New Delhi, the 18th November 2009.

ANALYZED BY-		AUTHORIZED SIGNATORY
<u>Komal</u>		<u>Hande</u>

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6. MoEF approved Lab by Govt. of India. From date, 16/02/2022 to 04/02/2022

Recognised by Ministry of Environment and Forests (MoEF) / Central Pollution Control Board Govt. of India (CPCB)
and ISO/IEC 17025:2017 (NABL), ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

DATE: MARCH 15, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/599
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	08.03.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near ETP	
02	Time of Sampling	03:40 P.M.	
03	Ambient Temperature	33.0 °C	
04	Dry Bulb Temperature	33.0 °C	
05	Wet Bulb Temperature	20.0 °C	
06	Relative Humidity	29.1 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	61.23 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	19.45 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	23.01 µg/cum	80 µg/cum

Note:

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6. MoEF approved Lab by Govt. of India. From date. 16/02/2022 to 04/02/2022

DATE: MARCH 15, 2022

AMBIENT AIR QUALITY MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/600
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	08.03.2022

RESULTS

SR.NO.	TEST DESCRIPTION	READINGS	NAAQS
01	Test Location	Near Cane Yard	
02	Time of Sampling	03:50 P.M.	
03	Ambient Temperature	33.0 °C	
04	Dry Bulb Temperature	33.0 °C	
05	Wet Bulb Temperature	20.0 °C	
06	Relative Humidity	29.1 %	
07	Sampling Duration	60 Min.	
08	Particulate Matter (PM ₁₀)	64.23 µg/cum	100 µg/cum
09	Sulphur Dioxide (SO ₂)	24.10 µg/cum	80 µg/cum
10	Oxides of Nitrogen (NO _x)	28.69 µg/cum	80 µg/cum

Note:

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Recognised by Ministry of Environment and Forests (MoEF) / Central Pollution Control Board Govt. of India (CPCB) and ISO/IEC 17025:2017 (NABL), ISO 9001:2015, ISO 45001 : 2018 and ISO 14001 : 2015 Certified Company

DATE: MARCH 15, 2022

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/601
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	08.03.2022
Time :	04:00 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 1 (90+20 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	75 M
04	Type of Stack	Round
05	Flue Gas Temperature	135°C (408 K)
06	Differential Pressure	3.00 mm WG
07	Velocity	6.64 m/sec
08	Stack Diameter	4.73 m
09	Stack Area	17.5627 m ²
10	Gas Volume	307279.79 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	38.63 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	20.05 mg/Nm ³
		147.86 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

ANALYZED BY-		AUTHORIZED SIGNATORY
		

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DATE: MARCH 15, 2022

SOURCE EMISSION MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/602
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition :	In Operation.
Date of Sampling:	08.03.2022
Time :	04:45 P.M.

RESULTS

SR. NO.	TEST DESCRIPTION	READING
01	Location	Stack 2 (75 TPH)
02	Material of Stack	RCC
03	Stack Height from Ground Level	72 M
04	Type of Stack	Round
05	Flue Gas Temperature	130 °C (403 K)
06	Differential Pressure	3.00 mm Wg
07	Velocity	6.60 m/sec
08	Stack Diameter	3.00 m
09	Stack Area	7.0650 m ²
10	Gas Volume	124374.62 Nm ³ /Hr

FLUE GAS QUALITY

SR.NO.	PARAMETER	VALUE
01	Suspended Particulate Matter (SPM)	32.66 mg/Nm ³
02	Sulphur Dioxide (SO ₂)	17.49 mg/Nm ³
		52.21 Kg /Day

Note:

- Maharashtra Pollution Control Board (MPCB) Limits - SPM: 150 mg / Ncum
- Maharashtra Pollution Control Board (MPCB) Limits - SO₂: As per Consent.

ANALYZED BY-

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AUTHORIZED SIGNATORY

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DATE: MARCH 15, 2022

AMBIENT NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/603
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana Ltd.,
Site :	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition:	In Operation
Date of Sampling:	08.03.2022.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (05:40 P.M.)	Night (11:00 P.M.)
01	Near Main Gate	62.7	61.2
02	Near ETP	65.1	64.8
03	Near Bagass Section	68.6	64.5
04	Near Sugar Godown	67.9	65.0
05	Near Cane Yard	70.1	67.9
	LIMIT dB(A)	75	70

Note:

- Maharashtra Pollution Control Board (MPCB) has prescribed 75 dB (A) as an upper limit of Noise Level during the Day Time & 70 dB (A) during the Night Time

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DATE: MARCH 15, 2022

WORKZONE NOISE LEVEL MONITORING RESULTS

Report No.:	GESEC/PRO/2021-22/03/604
Industry :	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana
Site :	Ltd.,
Plant Condition:	A/p.: Hupari, Dist.: Kolhapur.
Date of Sampling:	In Operation 08.03.2022.

RESULTS

SR. NO.	LOCATION	READINGS dB(A)	
		Day (06:00 P.M.)	Night (11:30 P.M.)
01	Centrifugal Section	85.1	84.0
02	Turbine Section	86.5	84.5
03	Boiler Section	83.8	82.3
04	Mill Section	82.3	81.8
05	Pan Section	79.4	78.5
	LIMIT dB(A)	90	

Note:

- The Factories' Act, 1948 has prescribed Noise Level threshold limit for 8 hours' exposure as 90 dB (A).

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DATE: MARCH 15, 2022

EFFLUENT SAMPLE ANALYSIS REPORT

Report No.:	GESEC/PRO/2021-22/03/605
Client:	M/s. Jawahar Shetkari Sahakari Sakhar Karkhana
Site:	Ltd.,
Location:	A/p.: Hupari, Dist.: Kolhapur.
Plant Condition:	Effluent Treatment Plant.
Date of Sampling:	ETP in Operation.
Analysis Date:	08.03.2022.
Sample Name:	09.03.2022.
	Industrial Effluent – Untreated & Treated

RESULTS

SR. NO.	TEST DESCRIPTION	UNTREATED	TREATED	MPCB LIMIT	UNIT
01	pH	3.45	7.63	6.5-8.5	--
02	Suspended Solids (SS)	125.07	20.09	100	mg/lit
03	Total Dissolved Solids (TDS)	3164.92	1256.92	2100	mg/lit
04	Chemical Oxygen Demand (COD)	3265.41	68.15	250	mg/lit
05	Biochemical Oxygen Demand (BOD)	1365.08	26.34	100	mg/lit
06	Chlorides as Cl ⁻	820.53	186.41	600	mg/lit
07	Sulphates as SO ₄ ²⁻	759.61	135.64	1000	mg/lit
08	Oil & Grease	11.00	BDL	10	mg/lit

Note:

- BDL: Below Detectable Limit.

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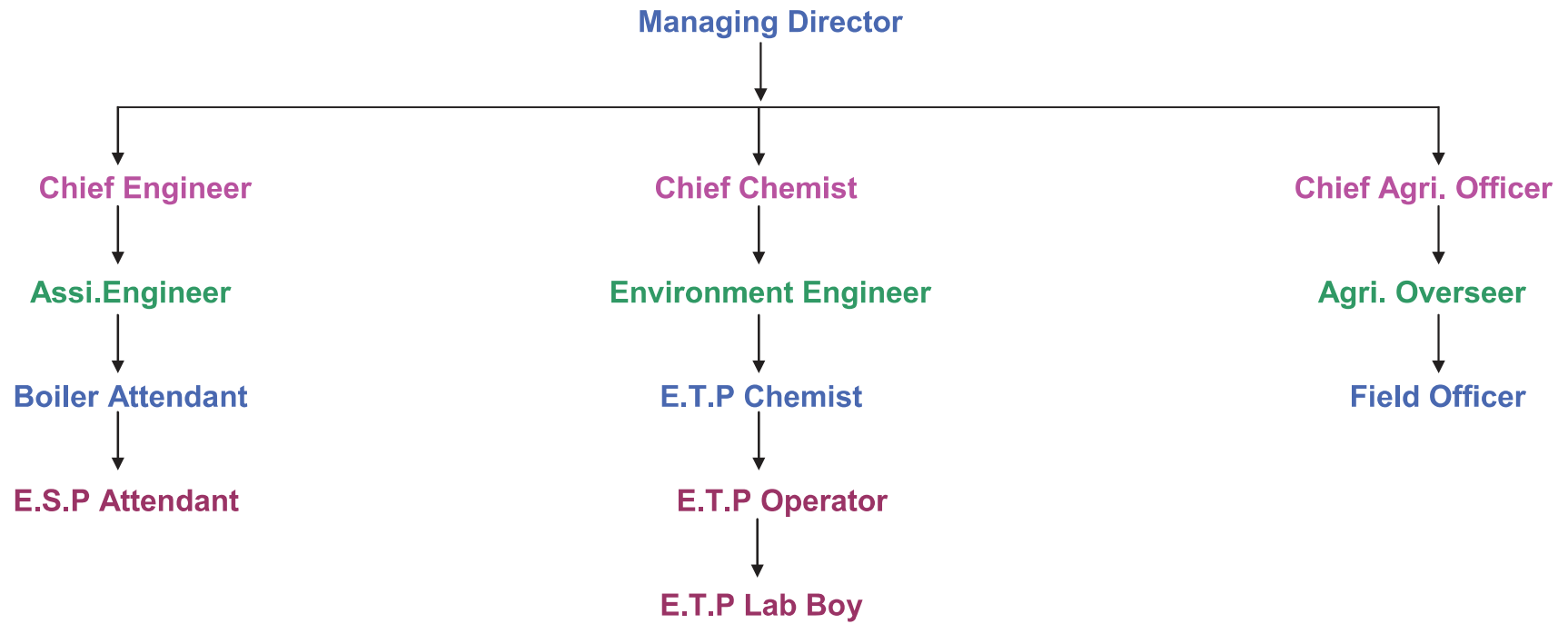
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Annexure V
Organogram of EMC

Jawahar Shetkari Sahakari Sakhar Karkhana Ltd., Hupari

Shri Kallappa Anna Awadenagar, Hupari-Yalgud 416 203,
Tal. Hatkanangale, Dist. Kolhapur (Maharashtra)

Environmental Management Cell



Annexure VI

Greenbelt Details

**GREENBELT DEVELOPMENT AT
JAWAHAR SHETAKARI S.S.K. LTD. (JSSSKL),
AT: HUPARI, TAL.: HATKANANGALE, DIST.: KOLHAPUR, MAHARASHTRA**



Agri/Garden Dept.
Date- 15/04/2022

AREAWISE TREE PLANTATION INFORMATION-

Sr.No.	Suevey No.	Place	Area (Acre)
1	1258	Harvesting workers staying yard	22.36
2	315/8,9	Colony area	5.00
3	315/11	Caneyard west side area	3.30
4	315/9,10	Office backside Mango & Rose plantation area	3.0
5	315/10	Stage side area	2.11
6	315/9,925/9	Main Road both sides area	1.13
7	315/14	Near Ash Yard	0.13
8	315/14	Hamaal shed (Eucalyptus tree plantation)	4.26
9	315/14	Hamaal shed (Forest trees)	4.16
10	315/11	Karkhana Main Gate area	0.03
11	315/14	Switch Yard/Bullock cart yard area	0.22
12	315/11	Behind Godown No.13 area	2.10
13	315/7	Petrol pump area	0.05
14	315/8	Bamboo in Compost yard	2.25
15	315/7,8,9	Bene plot	13.30
16	925/9	Flower Bed	0.11
17	315/9	Guest house, Board Room area	0.12
18	925/9	Karanj,chikoo,Mango plantation Area	2.02
19	925/9	Near Mhasoba Temple Area	6.00
20	925/9,315/9	Rajrajeshwari Temple to Bene plot roadside plantation (Coconut, Ashok trees)	1.31
21	925/9	Canal Side Coconut, Ashok Tree plantation	1.08
22	925/9,315/9	Karkhana outside Gate Cross Bed area	0.08
23	925/9	Rajrajeshwari Temple Area	1.10
24	925/9	Caneyard to Rajrajeshwari Temple Roadside plantation	0.22
25	925/9	Tractor Yard area	2.36
		Total	83.20


Chief Agri. Officer

JAWAHAR SHETKARI SAHAKARI SAKHAR KARKHANA LTD., HUPARI
 Shri. Kallappa Anna Awadenagar, Hupari -Yalgud, Tal-Hatkanangale, Dist-
 Kolhapur.(Maharashtra)

Date: 15/04/2022

Karkhana site Tree Plantation Details

Sr.No	Particulars	Nos of Tree
A	Fruit Plant	
1.	Coconut	603
2.	Mango	350
3.	Chikku	156
	Total	1109
B	Forest Tree	
1.	Rain Tree	2700
2.	Cassia	1752
3.	Chinch	78
4.	Kadaumb	17
5.	Subabhul	330
6.	Badam	46
7.	Saptparni	32
8.	Chandan	45
9.	Sag	14
10.	Suru	1000
11.	Nimb & Others	2798
12.	Tubobia	12
13.	Palas	14
14.	Gorham Chinch	558
15.	Silver Oak	2000
16.	Spathodia	36
17.	Wad	70
18.	Pimpal	125
19.	Nile Mohar	42
20.	Bahawa	140
21.	Gulmohar	409
22.	Kanchan	133
23.	Nilgiri	3430
24.	Umber	62
25.	Phanas	15
26.	Bel	05
27.	Australian babul	300
30.	Gul bhendi	507
31.	Karanj	1239
32.	Jambhul	100
33.	Paletoforum	250
34.	Bambu	27634
35.	Katesawar	320
	Total	46213

Sr.No	Particulars	Nos of Plant
C	Decorative Tree	
1.	Bottal Palm	90
2.	Ashoka	703
3.	Thuja	10
4.	Ficus	82
5.	Boganwel	1440
6.	Exora	21
7.	Chapha	53
8.	Areka Palm	4316
	Total	6715
D	Flower Tree	
1.	Rose	200
2.	Other Flower Tree	4726
3.	Pots Tree	306
4.	Kaneri	2670
5.	Shankasur	340
	Total	8242

Total Summary of tree plantation-		
A	Fruit Tree	1109
B	Forest Tree	46213
C	Decorative Tree	6715
D	Flower Tree	8242
	Total Tree Plantation	62279


Chief Agri Officer