

List of Annexure for EDS dated_28.12.2021_ Sri Basaveshwara Sugars Limited.

Annexure 1	Forwarding letter to MOEFCC and attendance in PH proceedings with Public Hearing MoM
Annexure 2	Water permission application
Annexure 3	Land conversion documents
Annexure 4	Undertaking
Annexure 5	Consent for Establish
Annexure 6	Plagiarism certificate



ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
Karnataka State Pollution Control Board

"ಪರಿಸರ ಭವನ", 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ಸಂ. 49, ಚರ್ಚ್ ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ ರಾಜ್ಯ, ಭಾರತ
"Parisara Bhavan", 1st to 5th Floor, # 49, Church Street, Bangalore - 560 001, Karnataka State, India

No.PCB/272/17 Cat /EPH/Basaveshwara Sugar/2021-22/ 3897

Date:

08 NOV 2021

To

The Addl. Director (IA),
Ministry of Environment, Forest and Climate Change,
Government of India,
Indira Paryavaran Bhavan, Vayu Wing, 3rd Floor, Aliganj,
Jor Bagh Road, New Delhi-110003.

Sir,

Sub: Forwarding proceedings of Environmental Public hearing in respect proposed industry by M/s. Sri Basaveshwara Sugars Limited., to establish Molasses/Sugar cane Juice based Distillery/Ethanol plant of capacity 50 KLPD at Sy.No. 362/1, 362/2 and 366/P1 at Belligeri Village, Anantpur Circle, Athani Taluk, Taluk, Belgaum Taluk, Karnataka.

Ref: 1. Terms of Reference issued to the Project Proponent in letter No: IA-J-11011/67/2021-IA-II (I) dated: 02-03-2021

2. Letter submitted by the Industry to the Board on 19.05.2021 (received on 10.06.2021).

3. Proceedings of the Environmental Public Hearing held on 15.09.2021 sent by RO Chikkodi along with letter No.1194, Dated: 08.10.2021 and received at Board Office on 16.10.2021

<<<<>>>>

With reference to the Terms of reference issued by MoEF & CC for the above said project cited at reference (1) and request of the industry in letter cited at reference (2), the Environmental Public Hearing was held on 15.09.2021 in accordance with the provisions of EIA Notification, 2006. The proceedings of the Public Hearing along with Photographs, CDs of the video recording and copies of objections/suggestions received from RO Chikkodi are enclosed for further needful.

Further, the Board has informed the Project Proponent to submit modified Rapid Environment Impact Assessment Report and Environment Management Plan incorporating all the concerns / suggestions expressed during the said Environmental Public hearing to MoEF & CC, New Delhi with a copy to this Office (Copy enclosed). The MoEF & CC could appraise the project after receipt of the Modified REIA.

This is for your information.

Yours faithfully,

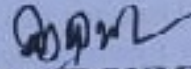
Sd/-
MEMBER SECRETARY

Enclosures:

- Copy of Proceedings of Environment Public Hearing in Kannada and English.
- Copies of Photographs, CD.
- Copies of suggestion/objections received.

Copy to:


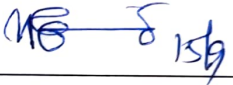
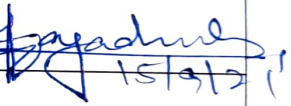
- ✓ 1. M/s. Sri Basaveshwara Sugars Limited., at post Belligeri Village, Anantpur Circle, At Taluk, Taluk, Belgaum Taluk, Karnataka for information.
2. The Regional Office, Chikkodi for information.
3. SEO, E-Governance for information and to upload the proceeding of EPH in the web site of the Board for public reference.
4. Case file.


SENIOR ENVIRONMENTAL OFFICER
KSPCB

ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಇವರು ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮದ ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಇಲ್ಲಿ ಹೊಸದಾಗಿ ಮೊಲಾಸಸ್/ ಶುಗರ್ ಕೇನ್ ಜ್ಯೂಸ್ ಆಧಾರಿತ 50 ಕೆ.ಎಲ್.ಪಿ.ಡಿ ಸಾಮರ್ಥ್ಯದ ಡಿಸ್ಪಿಲಿಯನ್ನು ಸ್ಥಾಪಿಸಲು ಉದ್ದೇಶಿಸಿರುತ್ತಾರೆ. ಇದರ ಪ್ರಯುಕ್ತ ಸಾರ್ವಜನಿಕ ಪರಿಷರ ಕುರಿತು ಆಲಿಕೆಯ ಸಭೆ.

ದಿನಾಂಕ: 15-09-2021.
 ವೇಳೆ: ಬೆಳಿಗ್ಗೆ 11:00 ಘಂಟೆ.

ಸ್ಥಳ : ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ.

ಕ್ರ. ಸಂ	ಅಧಿಕಾರಿಗಳ ಹೆಸರು	ಸಹಿ
01	ಶ್ರೀ ರೇಣುಕಾ ನಾಡಗಿರಾಜ್ ರವರ ಸಹಾಯಕಿ ಇಲಾಖಾ ಅಧಿಕಾರಿ	
02	ಶ್ರೀ ಎಚ್.ಎಸ್.ಎಸ್. ಶೇಖರ್ ರವರು, ಎ.ಡಿ.ಓ. ಇಲಾಖಾ ಅಧಿಕಾರಿ, ಗ್ರಾಮ	
03	ಶ್ರೀ ಬಿ.ಎಸ್.ಎಸ್. ಶೇಖರ್ ರವರು, ಎ.ಡಿ.ಓ. ಇಲಾಖಾ ಅಧಿಕಾರಿ, ಗ್ರಾಮ	

ಮೆ: ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಇವರು ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮದ ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಇಲ್ಲಿ ಹೊಸದಾಗಿ ಮೊಲಾಸಸ್/ ಶುಗರ್ ಕೇನ್ ಜ್ಯೂಸ್ ಆಧಾರಿತ 50 ಕೆ.ಎಲ್.ಪಿ.ಡಿ ಸಾಮರ್ಥ್ಯದ ಡಿಸ್ಟಿಲರಿಯನ್ನು ಸ್ಥಾಪಿಸಲು ಉದ್ದೇಶಿಸಿರುತ್ತಾರೆ. ಇದರ ಪ್ರಯುಕ್ತ ಸಾರ್ವಜನಿಕ ಪರಿಸರ ಕುರಿತು ಆಲೋಚನೆ ಸಭೆ.

ದಿನಾಂಕ: 15-09-2021.
ವೇಳೆ: ಬೆಳಿಗ್ಗೆ 11:00 ಘಂಟೆ.

ಸ್ಥಳ : ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ.

ಕ್ರ ಸಂ	ಕೈಗಾರಿಕೆ ಪ್ರತಿನಿಧಿಗಳ ಹೆಸರು	ಹುದ್ದೆ	ಸಹಿ
01	Vijay. R. Kadam	Chairman	
02.	Raghunath S. Kadan	Founder	
03	Adv. Sushant R. Kadan	Director	
05	Uttam V. Padil	Tech. Director	
06	Bashir N. Sande	Director	
07	Vinod B. Sawadkar	Director	
08	Chandrasakant. Trnnaach	Director	
09	Riyant K. Gadave	Manager	
10	Dr. Hemangji Nalavade	Chief Consultant	
11	Mr. Khaja Nawaz	Principal Con.	
12	Hemant U. Bowalekar	Environment Engineer	

ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಇವರು ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮದ ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಇಲ್ಲಿ ಹೊಸದಾಗಿ ಮೊಲಾಸಸ್/ ಶುಗರ್ ಕೇನ್ ಜ್ಯೂಸ್ ಆಧಾರಿತ 50 ಕೆ.ಎಲ್.ಪಿ.ಡಿ ಸಾಮರ್ಥ್ಯದ ಡಿಸ್ಪಿಲರಿಯನ್ನು ಸ್ಥಾಪಿಸಲು ಉದ್ದೇಶಿಸಿರುತ್ತಾರೆ. ಇದರ ಪ್ರಯುಕ್ತ ಸಾರ್ವಜನಿಕ ಪರಿಷರ ಕುರಿತು ಆಲಿಕೆಯ ಸಭೆ.

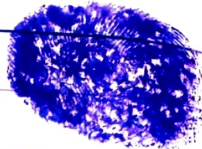
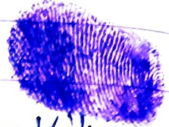
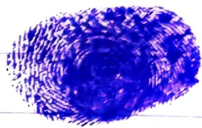



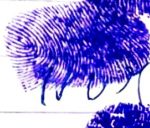

ದಿನಾಂಕ: 15-09-2021.


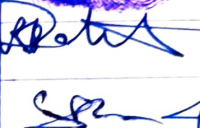
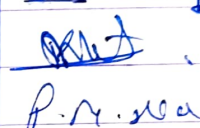
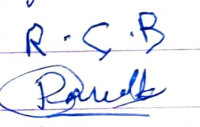
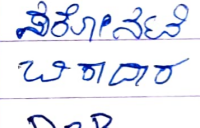
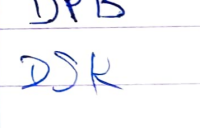


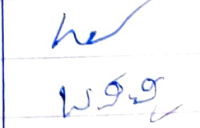
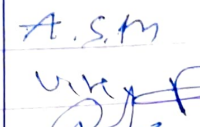
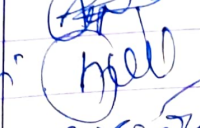
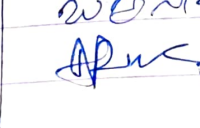

ವೇಳೆ: ಬೆಳಿಗ್ಗೆ 11:00 ಘಂಟೆ.

ಸ್ಥಳ : ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಗರ್ಸ್ ಲಿಮಿಟೆಡ್, ಸರ್ವೆ ನಂ: 362/1, 362/2 ಮತ್ತು 366 ಪಿ-1, ಬೆಳ್ಳಿಗೇರಿ ಗ್ರಾಮ, ಅಥಣಿ ತಾಲ್ಲೂಕು, ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ.

ಕ್ರ. ಸಂ	ಸಾರ್ವಜನಿಕರ ಹೆಸರು ಮತ್ತು ವಿಳಾಸ	ಸಹಿ
1	ಬತ್ತಲ ಬಲ್ಲಣ್ಣ ಕೀರ್ತಿ. ಬಳ್ಳಿಗೇರಿ	ಬತ್ತಲ ಬಲ್ಲಣ್ಣ ಕೀರ್ತಿ
2	ಪ್ರಜ್ವಲ. ಪೆ. ಬಾವನೋಡೆ ಮೊಲಾಬಾದೆ	
3	ಲೋಕೇಶ್ವರ. ಎ. ಎ. ಬಾವನೋಡೆ ಮೊಲಾಬಾದೆ	
4	ಶ್ರೀಮತಿ. ಶ್ರೀ ಪಾಂಬ್ಲೆ ಮೊಲಾಬಾದೆ	
5	ಶ್ರೀಮತಿ. ಹಾ. ಕುಂದಿನೋಡೆ ಮೊಲಾಬಾದೆ	
6	ಆಪ್ತಾಂ ತ್ರಿ ಆನಂದ	
7	ಶ್ರೀಮತಿ. ಎ. ಎ. ಬಾವನೋಡೆ	
8	Ganesh . S. Ghopade	
9	Sunil B. Ghopade.	
10	ಶ್ರೀಮತಿ. ಬಾವನೋಡೆ	
11	Prakash G. Balwaji,	
12	Shivaji A. Mone.	
13	Akash. G. Baheraji	

ಕ್ರ. ಸಂ.	ಮುಸ್ಲಿಮರ ಹೆಸರು ಮತ್ತು ವಸತಿ.	ಹೆಸರು
14	Kashinath. Agsal. (Baligeri).	KS
15	Vinod. A Hosamani (Malabad)	Wosamani.
16	Murati. Y. Pod (Hulagabali)	KS
17	Umesh. M. Pod. (Hulagabali)	KS
18	R. A. Kulloli; 288ನೇ	R.A.Kulloli;
19)	Busavargj S. Koli (Balligeri)	KS Koli
20)	Abhishek. S. Kole (Balligeri)	KS
21	Paadeep. S. Koli Baligeri	P.S.K
22)	Amit Mr. Paul (Atheni)	AJ
23	V. B. Chaw (Atheni)	A
24	Madame M.T. (Atheni)	WtA
25	ಮಹಿಮೆ ಬೆಸಿಂಗೆ ವಜೀರ (ಬೆಸಿಂಗೆ)	KS
26)	ಶಾಸ್ತ್ರಿ ಬೆಸಿಂಗೆ ವಜೀರ (ಬೆಸಿಂಗೆ)	R.V.D
27	Adalat. Munnalli Baligeri	A.M.M
28	ಮುಸ್ಲಿಮ ಹಿಂಗೆ ಹಿಂಗೆ ಹಿಂಗೆ	ಮುಸ್ಲಿಮ ಹಿಂಗೆ
29	ಮುಸ್ಲಿಮ ಹಿಂಗೆ ಹಿಂಗೆ ಹಿಂಗೆ	ಮುಸ್ಲಿಮ ಹಿಂಗೆ
30	VISHAL AOIVEPPA HOSAMANI	VA
31	ಮುಸ್ಲಿಮ ಹಿಂಗೆ ಹಿಂಗೆ ಹಿಂಗೆ	ಮುಸ್ಲಿಮ
32	ಮುಸ್ಲಿಮ ಹಿಂಗೆ ಹಿಂಗೆ ಹಿಂಗೆ	ಮುಸ್ಲಿಮ
33	ಮುಸ್ಲಿಮ ಹಿಂಗೆ ಹಿಂಗೆ ಹಿಂಗೆ	ಮುಸ್ಲಿಮ
34	Imran Baldan Baligeri	Imran
35	Saldan Baldan Baligeri	Baldan
36	Farak. Patta. Malabad.	Rok L
37	Yashin patta. Malabad.	YFA
38	Samsheer Mulla Malabad.	S
39	Samel. Sundar wale Malabad.	Samel
40	Woshil Saiyad Malabad.	W.S.
41	Imam Saiyad Malabad	KS
42	Sayee Case. Malabad.	KS
43	Rosa Kamsk Malabad.	Rosa
44	Yalappa handighur Malabad.	Yalappa

70	ನೀಲಕಂಠ ಅರಸ, ಬೆಂಗಳೂರು	ನಿಜ
73	ಶಂಭುರಾಜ್, ಎ. ಬಿ. (ಬೆಂಗಳೂರು)	
74	ನೀಲಕಂಠ ಅರಸ (ಬೆಂಗಳೂರು)	
75	Vidya Vikram - Bangalore	Vidya Vikram
78	ನೀಲಕಂಠ. Hanuman. Bissador (Ballary)	NHB
79	Shankar B. Suryavanki (Ballary)	
80	Bhimappa, Bapu. Mali. (Ballary)	ಬಿ.ಪಿ.ಎಂ. : ಬಿ.ಎಂ.ಎಂ.
81	Ramappa. S. Jodi (Ballary)	RST
82	Shidling Belagali "	SSK
83	Croutani. H. Pavanjape Athu	UHT
84	Basavaraj. S. Haduvudi "	ಬಿ.ಎಂ.ಎಂ. : ಬಿ.ಎಂ.ಎಂ.
85	Dineth S. Nipey	<u>Pinky</u>
86	Sejath S. Jashav	SSK
87	Sadashiv Keshkuddi	SLK
88	Purnam T Kambale	
89	Pavali A - Sanki. Ballary	APK
90	Vinod B. Savadker	<u>Shidling</u>
91	Deepak Pahl Padasar	SHI Pahlit
92	Babasaheb Pomas Yeladagi	SHI Pahlit
93	Shikhar Thurat. "	
94	Madan Pomas. "	SHI Pahlit SHI Pahlit
95	Suresh Mandiwale Sanbonab.	
96	Yalappa Pomas Padasar	
97	Shama. Malik. (Malasol.)	
98	Ratan Bisswal. (Malasol.)	
99	SHI. Islam	
100	Radeer Jashav Malasol	

101	Bappa . Mulla .	(Bidigeri)	B. M.
102	Dileep Siddar .	(Baligeri)	D. S.
103	Nikhil Malli	(Baligeri)	(N. M.)
104	Rakesh Bhosale .	(Mabhad)	R.R.B
105	M.B. Bhalanwar	MRS	
106	Ashwin-H. Machan	Almurhatti	Ashwin
107	Shobha B. W. J. J.	Hydrabad	
108	Vithal Keshav Pahl	Skimal	
109	Dr. S. B. Myawar		
110	A. M. Sanachi		
111	A. S. Knot	Nialabad	
112	P. M. N. N. N.		P. M. N. N. N.
113	R. S. B		R. S. B
114	Paigambar Mulla	Bauyer	
115	V. H. S. S. S.		
116	S. S. S.	2300	
117	DPB	"	DPB
118	DSK	"	DSK
119	BBH	"	BBH
120	Q. S. S. S. S.	2300	
121	S. S. S. S. S.		
122	S. S. S. S. S.		
123	S. S. S. S. S.		
124	S. S. S. S. S.		A. S. M
125	S. S. S. S. S.		
126	S. S. S. S. S.		
127	Subhush Kambale	Sampadga	
128	Boragend A. A. A.	(Belligeri)	
129	AS. M. L. Mulla	Baligeri	

Proceedings of the Public Hearing of M/s. Shri Basaveshwara Sugars Limited proposed for production of new 50 KLPD Molasses/Sugar Cane Juice based Distillery/Ethanol Plant at Balligeri Village, Athani Taluk, Belagavi District, In this regard Public Hearing is conducted on 15-09-2021 at 11.00 am.

Date : 15-09-2021.

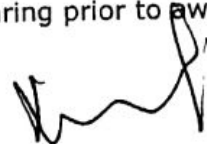
Time : 11.00 AM

Venue : M/s. Shri Basaveshwara Sugars Limited, Balligeri Village, Athani Taluk, Belagavi District.

M/s. Shree Basaveshwara Sugars Limited proposed for production of new 50 KLPD Molasses/Sugar Cane Juice based Distillery/Ethanol Plant at Balligeri Village, Athani Taluk, Belagavi District. In this regard Public Hearing is conducted on 15-09-2021. The Proceedings of the public hearing is as under:

Name & Address of the Proposed Industry	:	M/s. Shri Basaveshwara Sugars Limited, Balligeri Village, Athani Taluk, Belagavi District.
Name of the Officers Present	:	Annexure - 1
Representatives of the Proposed Industry Present	:	Annexure - 2
Details of Public Participated	:	Annexure - 3
Details of publication arranged in the News Papers for public hearing	:	Annexure - 4
Power Point Presentation made in the Public hearing	:	Annexure - 5
Reply given by the industry representatives for the concerns expressed by the public.	:	Annexure - 6

As per the Notification issued by the Ministry of Environment, Forest and Climate Change, Government of India on 14.09.2006 (amended to date), it is a pre requisite for such project to conduct Environment public hearing prior to award of Environment



Clearance Certificate. Accordingly Director, MoEF and CC letter No.J-11011/67/2021-IA II (I) has finalized the standards terms of Reference of the said project vide letter Dated:02-03-2021 and informed M/s. Shri Basaveshwara Sugars Limited, Balligeri Village, Athani Taluk, Belagavi District, Karnataka State to request KSPCB to conduct Environment public hearing. The project proponent vide letter Dated 10-06-2021 requested KSPCB to conduct public hearing. Hence the Environment Public Hearing is conducted at the project site by the Karnataka State Pollution Control Board under the Chairmanship of Additional Deputy Commissioner & Additional District Magistrate, Belagavi.

The project proponent has submitted the detailed EIA report and Executive Summary in Kannada and English to the Karnataka State Pollution Control Board. As per the Environmental Impact Assessment Notification, the Karnataka State Pollution control Board issued Notification 30 days in an advance. The advertisement to this effect was published in English daily newspaper dated: 14-08-2021 "**The new Indian Express**" and Kannada daily news paper "**Vijayvaani**" and Local news paper "**Samyukta Karnataka**" dated:17-08-2021. The suggestions/ views, comments and objection of the interested bona fide residents, environmental groups and others located at the project site likely to be affected by the proposed project were invited and project affected people could send their views either orally or in written or through email to Karnataka State Pollution Control Board/ Deputy commissioner, Belagavi, Chairman, Environment Public Hearing Committee.

The Environment public hearing was held on 15-09-2021 under the chairmanship of Additional Deputy Commissioner & Additional District Magistrate, Belagavi District, Belagavi.

Sri Jagadeesh I H, Environmental Officer, Karnataka State Pollution Control Board, Belgaum-2(Chikkodi) extended warm welcome to Sri Ashok Dudagunti, Additional Deputy Commissioner & Additional District Magistrate, Belagavi, Sri. Vijaykumar T Kadakbhavi, KSPCB, Zonal Senior Environmental Officer, Dharwad, Tahasildar Athani and he has also extended the welcome to all officials of the different Departments, representatives of the project, all surrounding villagers, public, media and environmentalists.

He briefly explained the need for Environmental clearance from the Ministry of Environment, Forest and Climate Change, Government of India and Environmental Public Hearing as per EIA Notification and explained the procedure of the Public hearing and about the project documents kept for the Public Hearing at nine different offices.



The Environmental Officer requested to the Additional Deputy Commissioner & Additional District Magistrate, Belagavi and also the Presiding officer of the Environment Public Hearing meeting to start the proceedings. Later Instructed the industry representative and their consultants to make the presentation about the proposed industry i.e. M/s. Shri Basaveshwara Sugars Limited, Balligeri Village, Athani Taluk, Belagavi District to the public.

Industry representative and Environment Consultant of M/s Metcon consultancy and engineering service limited, Pune for the project explained about the environment impacts and mitigation measures recommended for the proposed industry of the M/s. Shri Basaveshwara Sugars Limited, Balligeri Village, Athani Taluk, Belagavi District. The copy of the power point presentation is also enclosed with the proceedings vide **Annexure-5.**

Shri. VijayKumar Khadakbavi, Zonal Senior Environment Officer, Karnataka State Pollution Control Board, Zonal Office, Dharwad, hello everyone today's president of this function Shri Ashok Dudagunti Deputy Commissioner, Belagavi, Shri Jagadeesh I H Environmental Officer, Sri Basaveshwara sugars limited project management officers, Mitcon consultant officers, press, media friends and already Regional Officer Jagadeesh told that Sri Basaveshwara sugars limited has proposed project for establishment of distillery unit by using juice and molasses produced from 50 TCD sugar plant. So that as per 14-09-2006 Notification of our Ministry of Environment and Forest, Climate Change, Government of India, if any project has distillery capacity more than 30 KLD then it is covered under 'A' category and there is also a condition in EIA notification that environment clearance must be obtained from Ministry of Environment and Forest, Government of India. In addition to that as it is interstate boundary of Karnataka and Maharashtra is hardly within 5 to 6 km and if the project is within 25 Km from the interstate boundary, then the project is covered under 'A' category project. As it is compulsory to get environment Clearance from Ministry of Environment and Forest for 'A' category project, today we have arranged public hearing meeting as per the Notification.

The purpose of this environment public meeting is that it is a distillery project and distillery means it is one of the water polluting industry. If you are not doing proper discharge of spent wash coming out from this industry then it will cause pollution in the surrounding area. For such industries the management of Basaveshwara Sugars Limited must engage consultant to prepare report about present situation and impact after establishment of the plant. They have already prepared and submitted the Environment impact assessment report including the control measures proposed for



water pollution, air pollution, soil pollution and sound pollution to meet the environmental standards. As per EIA Notification and with the permission of respected District Deputy Commissioner, Belagavi we have already given information to the public before 30 days, about environment public hearing of proposed plant in 3 daily news paper such as one in English New Indian Express and two kannada news paper Vijayvani & Samyukta Karnataka. The main purpose of this public hearing is that through this meeting, the public must express their opinion about environmental issues and which will be beneficial for us to send it to the Ministry of Environment and Forest, Government of India.

Already we have published in 3 news papers before 30 days to bring it to the notice of public and also executive summary of this proposed project of Basaveshwar Sugars Limited was kept in all 9 concerned offices for public notice and verification purpose. So public can refer this document and make note of any changes or short comings. So it will be beneficial for them to participate in this meeting with all the information. Mostly our Board did not get any response from public for requirement of any additional information or correction of any short coming and for all public it is not possible to go to such nine offices to collect all information for this purpose. As published in news paper we are conducting environmental public meeting at the project site. Because it is compulsory to get public opinion. Already Metcon Consultant have given brief information. Already you have seen the description of it, we have arranged for presentation of this report to get all the information. So after getting this information anybody from the public can express any opinions, any objections and any suggestions if they have. It would be beneficial for us to inform the Ministry of Environment and Forest. Everyone will get a chance to express their opinions and objections in the meeting without any fear and anxiety. Everyone must make use of it. Because whatever is happening in this meeting is being video recorded along with audio. With the signature of respected District Deputy Commissioner, the prepared proceedings will be sent to the KSPCB Head Office and then to Ministry of Environment and Forest. So that you all can participate actively in this meeting and express your opinions and make this environmental public meeting successful. I conclude my words with a hope that you all will extend co-operation.

The views expressed by the public are as follows:

1. Mallikarjun Patil, Balligeri:

In future due to rain, if contaminated water from the industry is discharged to nala, if borewell and wells are contaminated then who is responsible for it sir? There is already a Kempawad industry in the surrounding area, up to 4 to 5 Km



contamination is spread all over the place. For drinking water, cattles and human beings are facing problems, for this who will be responsible?

Sri Basaveshwrar Sugars Limited representative : As already shown in the presentation, we will take measures to prevent noise pollution, air pollution and water pollution. ZLD means Zero Liquid Discharge system will be installed. In this whatever waste is produced that will be used here only by doing recycle of it. Under the post environmental clearance, for every six months we have to monitor it and all the reports must be sent to MOEF & KSPCB. We will display all details.

Mallikarjun Patil: Sir, what I am saying is, if in future you discharge the waste into the borewell within the industry, then that pollutant water may spread over to the surrounding borewells of the area and then what to do sir?

Sri Basaveshwrar Sugars Limited representative: We will follow all the Rules of KSPCB and as per the recommendation, we will install all the machineries to make it Zero Liquid Discharge unit. Already we explained, according to that we can do zero discharge so that public will not get any problem. About ground water contamination, we install piezometers so that we can keep continuous monitoring. So that we can ensure there will not be any pollution.

2. Appasaheb Nagappa Munashi, Balligeri:

Now my problem is, due to this industry the earth is trembling. Due to such earth vibrations, few houses will be damaged and for that what will be the solution? My second question is, due to this industry temperature will be increased in the 1 Km radius of surrounding area, so how do you control it?

Sri Basaveshwrar Sugars Limited representative: As this is 50 KLPD factory during construction, commissioning measures will be taken to control the vibrations and hence vibration does not go up to 1 km.

Zonal Senior Environmental Officer told to Metcon consultant to note all these objections raised by the public. For those you have to reply at the end of the hearing so that wastage of time can be avoided.

3. Gajanan Gorpade, Parthanhalli:

Sir, tell me what is the benefit from this industry to surrounding villages?

4. Suraj Basvagouda Malahabad:

My question is, what actions will be taken to prevent air pollution caused by this industry?



5. Paigambar Mulla, Balligeri:

Surrounding of our Belligeri village up to 4 to 5 Km odour will come sir. As the village is near, here our environment is getting spoiled. Here we get good drinking water from bore well, due to this if water is polluted, then what action will be taken?

6. Vinod Hosamani, Malahabad:

Sir, what are the advantages of this industry?

7. Rahul Shirahatti, Malahabad:

If this industry wants to operate this plant continuously, then how much water quantity is required per day.

8. Razak Mulla:

Here instead of disadvantages we have to think about advantages of this industry. In today's situation due to this industry, surrounding village youths can get job opportunities and it is beneficial for sugar cane growing farmers also. About pollution control, already industrialists explained in their presentation that they will take proper action as per the Government and Environmental Department. We have to give first preference to our Balligeri village youths and farmers. We will co-operate without causing any trouble to the industry and it would be nice if a little more care is taken about pollution.

9. Laxman shivappa Hosagoudar:

Due to water and air pollution, if our crops are damaged then they have to give compensation for the same. It should be given in written form because if in case we face any loss they have to fulfill it. Already we have pure drinking water available here, if the water is contaminated due to this industry activities then they are responsible to arrange water for drinking purpose and for crops.

Sri Basaveshwara Sugars Limited representative : Sir they have asked about vibration, they told that due to vibration surrounding villages are facing trouble. But our erection and commissioning is one of the vibration free construction and it will not go up to that extent. To prevent this we will take proper action.

They asked about the proposal to prevent increase in the temperature in the surrounding environment. For this we will plant three rows of plantation around the industrial premises. Green belt will be done in an area of 14.48 Acre. So we have made an arrangement to ensure that temperature does not affect the surrounding area.



They have asked about the measures taken to control Air pollution. We will install wet scrubber to the Boiler stack made up of mild steel of height 40m and scrubber is used to control emissions.

Asked about the advantages to the surrounding villagers by this industry? As Razaak mulla told it is best chance to get job opportunities for the youths of this part. Such industries must be encouraged just to stop our youth going to Bangalore for job purpose. We are following mitigation measures for pollution. We will adopt all the measures as stipulated by the KSPCB. You can submit objections, if you face any problems. We have arrangement to provide job opportunities and made plans for development under CSR activities.

As Paigamber asked, how do you prevent odour? For that we do odour management i.e activities will be carried in closed area so that we can prevent odour from spreading all over. For environmental management purpose, we have proposed approximately Rupees 2 Crore 15 Lakhs.

They have also asked about advantages of this industry? For this question we have to reply in Razak's words. In this covid situation job opportunity is very important for all.

Laxman sir asked about compensation. If you see that, the industry has made total Zero Liquid Discharge (ZLD) system. We will take preventive measures so as not to compensate for it and nothing will happen in such a way. We will provide all the machineries stipulated by the Pollution Control Board.

Someone asked about ground water and expressed that waste water will be discharged into borewell. We are going to implement zero liquid discharge system. This zero liquid discharge system means whatever the spent wash is generated, is made to pass through multiple effect evaporator and spent wash dryer is used to covert this waste into powder. The dried powder containing rich potash can also be used as a fertilizer. We have proposed an arrangement in such a way that any kind of pollution will not take place.

10. Shikandar Muzawar, Balligeri:

Sir, this industry belongs to Maharashtra management. There is no industry in our area and so many unemployed youths are there. So my suggestion is that you should offer job opportunities especially for the people of this area.

Shri. Ashok Dudagunti, K.A.S, Additional Deputy Commissioner, Belagavi District, & Chairman, Environmental Public Hearing said that the public hearing is called regarding the project of Shri Basaveshwara Sugars Limited proposed for



production of new 50 KLPD Molasses/Sugar Cane Juice based Distillery/Ethanol Plant at Balligeri Village, Athani Taluk, Belagavi District. Already few farmers and people from the nearby villages have expressed their views. This complete environment public hearing meeting is video recorded. The actual opinion expressed by you all will be forwarded to Ministry of Environment and Forest, Climate Change. The proceedings will be displayed in the website of Karnataka State Pollution Control Board and it will be in Kannada and English. I thank everyone for participating in this and I conclude this meeting.

The hearing is concluded with vote of thanks.



(Sri. Ashok Dudagunti, K.A.S.)
Additional Deputy Commissioner &
Additional District Magistrate &
Chairman, Environmental Public
Hearing Belagavi, Karnataka



SRI BASAVESHWARA SUGARS LIMITED

BALLIGERI, TAL. ATHANI, DIST. BELGAVI, (K.S.)

CIN : U15421KA2007PLC041842

E-mail:-sribasaveshwarasugars@gmail.com

RefNo. SBSL/Adm./2020-21/43

Date : 22/02/2021

To,
The Executive Engineer,
KNNL, H.B.C. Division,
Athani,
Dist. Belgavi, Karnataka State.

Sub: Water Lifting permission ...

Dear Sir,

With reference to the above subject, we as Sri Basaveshwara Sugars Limited are establishing sugar and ethanol plant at Balligeri, Tal. Athani, Dist. Belgaum, Karnataka.

In this connection, we have received the water lifting permission from Hippargi Barrage upstream water from Krishna River to the extent of 52.40 MCFT for our project from Under Secretary to the Government, Water Resources Department (Technical-4) vide order of Government No. JA.SA.E.9 HI AY 2007, Bangaluru dated 06/12/2013.

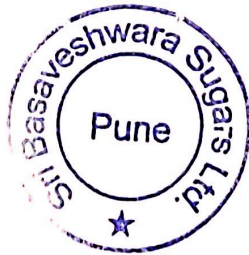
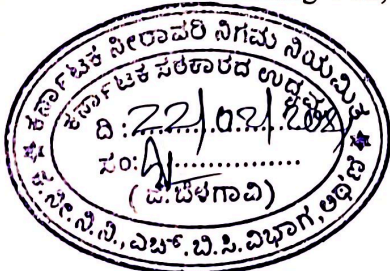
But, we mention here that, due to unavoidable reasons, we can't erect our project. But, now our management is in view to erect the said project and have planned to commence project since November, 2021. In this regards, we have to prepare the Detailed Project Report and have to submit the loan proposal with Banks and have to take various government permissions we requires the water lifting permission.

As per considering our requirement of water for industrial use will be 3 mcft per year.


Request to consider our application and allow us to lift water from Krishna River for 3 mcft per year for our project.

Your earliest action in this regards will be highly appreciated.

Thanking You,



Yours faithfully,
For Sri Basaveshwara Sugars Ltd


(Sande Bashir Nijam)
Director DIN- 07810742

Regd. off:- Block No. 402/A, 4th Floor, Ramkrishna Kamal, Opp. Sardar High School Ground,
Belgavi : 590002, Karnataka State

Corporate Office:- 'SAVIRA', S NO.97, PLOT NO-130, Right Bhusari Colony, Kothrud, Pune – 411038.
Contact No. : 86000 25786



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ಗ್ರಾಮ ಸಮೂಹ 2
ಪಾಲುದುಕು ಬೊಳವರು

ರೆಕಾರ್ಡ್ ಆಫ್ ರೈಟ್ಸ್, ಗೇಣಿ ಮತ್ತು ಪೆಹಣಿ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.೦೬

Print Page No: 1/1
Valid from 25/05/2011 10:32:00 To Till Date
ಪುಟದ ಕ್ರಮ ಸಂಖ್ಯೆ :

1. ಸರ್ಕಾರಿ ಸಂಖ್ಯೆ	3. ವೇತನವಾರು	ಎಕರೆ ಗುಂಟೆ	4. ಕಂದಾಯ	ರೂ. ಪೈ.	9. ಕೆಲವು ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು ತಂದೆಯ ಹೆಸರು ಮತ್ತು ವಿಳಾಸ	ವಿಸ್ತೀರ್ಣ ಎ ಗುಂ	ಪಾತ ನಂ.	10. ಕೆಲವು ಅಥವಾ ಸ್ವಾಧೀನತೆಯ ರೀತಿ	11. ಇತರ ಹಕ್ಕುಗಳು ಮತ್ತು ಮಾರ್ಗಗಳು
362	ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ ವ್ಯಾಟ್ ನಿರಾಹಿತ (ಅ) ವ್ಯಾಟ್ ನಿರಾಹಿತ (ಬಿ) ಉಳಿದವು	13.33.00.00 0.17.00.00 0.00.00.00 13.16.00.00	(ಅ) ಭೂ ಕಂದಾಯ (ಬಿ) ಜೋಡಿ (ಕ) ನೆಸುಗಳು (ಇ) ನೀರಿನ ದರ	2.28 0.00 0.00 0.00	ಶ್ರೀ ಬಸವೇಶ್ವರ ಕುರ್ನಲ್ ರಿ ಮ್ಯಾನೇಜರ ಯೂನಿಟ್ ಬಳ್ಳಿಗೇರಿ - - ರೂ.ಪ	13.16.00.00	0	MR 390/2010-2011 21/05/2011 -	ಹಕ್ಕುಗಳು : ಮಾರ್ಗಗಳು :
2. ಕ್ರಮ	2		ಒಟ್ಟು	2.28					
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2018-2019 ಮುಂಗಾರು	ಶ್ರೀ ಬಸವೇಶ್ವರ ಕುರ್ನಲ್ ರಿ ಮ್ಯಾನೇಜರ ಯೂನಿಟ್ ಬಳ್ಳಿಗೇರಿ	1						No Crop Info.	0.00.00.00	0.00.00.00	0.00.00.00		0.00		
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RTC DIGITALLY SIGNED BY : MALLAPPA MASTAMARDI ON 7/4/2018 5

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Citizen may register their AADHAAR number and mobile number at www.landrecords.karnataka.gov.in to get SMS alerts about mutations on agricultural lands

ಕರ್ನಾಟಕ ಭೂಕಂದಾಯ ನಿಯಮಾವಳಿ 1968 ರ ನಿಯಮ 40, 42, 58 ಮತ್ತು 70

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ರೆಕಾರ್ಡ್ ಆಫ್ ರೈಟ್ಸ್, ಗೇರಿ ಮತ್ತು ಪಹಣಿ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.೦೬

Print Page No: 1/1
Valid from 25/05/2011 10:32:00 To Till Date

ಗ್ರಾಮ ನಮೂನೆ 2
ತಾಲ್ಲೂಕು ನೋಟರು

ಪಾಲಿಸಿ ನಂ: 16334AEF04755F4

ಪೋಲೀಸ್ : ಅನಂತಪುರ

ಗ್ರಾಮ : ಬಳ್ಳಿಗೇರಿ

ಪ್ರಜ್ಞೆ ಕ್ರಮ ಸಂಖ್ಯೆ :

1. ಸರ್ವೆ ನಂಬರ್	3. ವೇತನವಾರು ಒಟ್ಟು ವಿಸ್ತೀರ್ಣ ಪೂಲ್ ಎರಾಟ್ (ಆ) ಪೂಲ್ ಎರಾಟ್ (ಬಿ) ಉಳಿದವು	ಎಕರೆ ಗುಂಟೆ ಆ	4. ಕಂದಾಯ ದೂ. ಶ್ಲಾ.				9. ಕೆ.ಎ. ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು ಪಾಲಿಸಿ ನಂ	ವಿಸ್ತೀರ್ಣ ಎ ಗುಂ	ವಾತಿ ನಂ.	10. ಕೆ.ಎ. ಅಥವಾ ಸ್ವಾಧೀನಕೆಂದು ರೀತಿ MR 390/2010-2011 21/05/2011 -	11. ಇತರ ಹಕ್ಕುಗಳು ಮತ್ತು ಮಾರ್ಗಗಳು	
			(ಅ) ಭೂ ಕಂದಾಯ	(ಬಿ) ಜೋಡಿ	(ಆ) ಸೆಪ್ಪುಗಳು	(ಡ) ನಿರೀಕ್ಷಿತ ದರ					ಹಕ್ಕುಗಳು :	ಮಾರ್ಗಗಳು :
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5. ಮುಕ್ತ ಸಮಾಜ	7. ಮರಗಳ ಸಂಖ್ಯೆ											
ಕೆಂಪು	8. ವಿಸ್ತೀರ್ಣ											
	9. ಸರಕಾರಿ											

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12. ವರ್ಷ ಮತ್ತು ಕಾಲ	13. ವಿಸ್ತೀರ್ಣ ಮತ್ತು ವಾಸಸ್ಥಳ 2	14. ಗ್ರಾಮ ಪಂಚಾಯತ್ 3	15. ಗ್ರಾಮ ಪಂಚಾಯತ್ 4				16. ವಿಸ್ತೀರ್ಣ ಎ ಗುಂ 7	17. ಬೇಸಾಯ 8	18. ಬೆಳೆ ಬೆಳೆದು 9	19. ಅನುಮತಿ 10	20. ಮಿತಿ 11	21. ಒಟ್ಟು ಮೂಲ 12	22. ಮೂಲ 13	23. ಉತ್ಪಾದನೆ 14	24. ಮಿತಿಗೊಳಿಸಿದ ಹೆಚ್ಚು 15	25. ವಿಸ್ತೀರ್ಣ ಎ. ಗುಂ 16
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RTC DIGITALLY SIGNED BY : MALLAPPA MASTAMARDI ON 7/4/2018 5

ವಿಸ್ತೀರ್ಣ ಎಕರೆ ಮತ್ತು ಗುಂಟೆಗಳು...

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RTC UniqueNumber : I16334AEF04755F4

ಪಟ್ಟಿಯನ್ನು ನೋಡಲು <http://landrecords.karnataka.gov.in/rtcverification> ಬಳಸಿ ಅಥವಾ KA BHOOMI <RTC UniqueNumber> ಟಿಪ್ಪಣಿ ಮಾಡಿ 161 ಗೆ ಸಂದೇಶ ರಳುಹಿಸಿ ಪರಿಶೀಲಿಸಬಹುದು
Citizen may register their AADHAAR number and mobile number at www.landrecords.karnataka.gov.in to get SMS alerts about mutations on agricultural lands



16334AEF0464099

ಗ್ರಾಮ ಸಮಾಜ 2
ಪಾಲಿಕೆ ವಿಳಾಸ

ಪಾಲಿಕೆ : ಅಧಿಕಾರಿ

ರೆಕಾರ್ಡ್ ಆಫ್ ರೈಟಿಂಗ್, ಗೇಜೆ ಮತ್ತು ಪಹಣಿ ಪತ್ರಿಕೆ (RTC) ಫಾರಂ ನಂ.೦೬

Print Page No: 1/1
Valid from 25/05/2011 10:32:00 To Till Date

1. ವರ್ಷ ಸಂಖ್ಯೆ		3. ವೇತನವಾರು		ಎಕರೆ ಗುಂಪಿ ಆ		4. ಕಂದಾಯ		5. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		6. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		7. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		8. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		9. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		10. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು		11. ಕಟ್ಟಡ ಅಥವಾ ಸ್ವಾಧೀನದಾರರ ಹೆಸರು				
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12. ಸಾರ್ವಜನಿಕ ಮತ್ತು ಗೇಜೆ ವಿವರಗಳು																								
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1			3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
2018-2019	ಮಾರ್ಚ್	ಶ್ರೀ ಬಸವೇಶ್ವರ ಶುಭರ್ಗ ರಿ ಮ್ಯೂನಿಸಿಪಲ್ ಕಾರ್ಪೊರೇಷನ್	1	0.00.00.00	0.00			No Crop Info.	0.00.00.00	0.00.00.00	0.00.00.00		0.00											

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True Translation from Kannada to English.

GOVERNMENT OF KARNATAKAKA.

NO.RB/LNA/SR.1/43/2008-09 Office of the Deputy Commissioner,

Belagavi, Dated:1.10.2008.

"CIRCULAR".

Sub: Application Dated;28.6.2008, given by the Chairman, Shree Basveshwar Sugar Factory , Balligeri, to convert the land bearing R.S.No.362/2 Measuring 13 Acre 33 Gunthas , 362/3 13 Acres 29 Gunahs and 366/P1, measuring 16 Acre 20 Gunthas of Ballikeri Village, Anantpur Circle from Agriculture to Non-Agricultural use.

Reference. :

- (1) Report of the Tahsildar, Athani, Daterd:11.07.2008 in No.LNA SR(1) 3/08-08 .
- (2) Applicant has remitted conversion fine of Rs.9,48,550 for Sub division Fee of Rs.105/- and value of Pot Kharab of Rs.23,392/- under Challan No.0006 Dated: 12.9.2008. to the Treasury.
- (3) Proceedings of Single Window Committee No.36 Dated: 18.8.2008.



That, the Chairman , Shree Basveshwar Sugard Limited, Balligeri, has given application dated 28..6.2008, to convert land R.S.NO.362/2 Measuring 13 Acre 33 gunthas, 362/3 meausring 13 Acre 29 Gunthas and 366/P1, measuring 16 Acre 20 Gunthas of Balligeri Village, Anantpur Circle, for industrial purpose and has also remitted necessary fees of Rs.8654/- Under Challan No.0006 .

The said application is perused under the scope of provisions of Section 95 of Karnataka Land Revenue Act 1964 , Municipality Act/Corporation Act/Panchayat Act and Karnataka Country and Town Planning Act . Perused the documents produced by the Applicant by the Single Window committee and have satisfied that, there is due compliance of the above referred Acts and rules.

The applicant has also produced the approved lay out approved by the competent authorities and the Single Window Committee has got satisfied about the measures taken by the Applicant. Therefore, permission is accorded to the Chairman, Shree Basveshwar Surgar Factory, Limited, Balligeri, to convert land R.S.No.362/2 measuring 13 Acre 33 Gunthas , 362/3 measuring 13.Acres 29 Gunthas and 366/P1, measuring 16 Acre 20 Gunthas, situate at Balligeri Village, Anantpur Circle, Athani Taluka, on the following conditions.

1. The land should be used for Industrial purposes only and shall not be used for any other purposes without prior permission.
2. Construction has to be in accordance with the approved plan and specific measurement plots as per approved lay out has to be sold.
3. Space for road, Margin Open space etc., as per the approved plan of the Director Urban Planning Department, has to be reserved for the said purposes.
4. Plots will have to be sold only after making provisions for the Civic amenities like Electricity, Water Supply Underground facility and other amenities for the use of the public and for the plot holders of the land.
5. If there is Pot Kharab in the land, then, the same should be reserved for Government purpose as per Section 67 of Karnataka Land Revenue Act-1964, . The land involved in the conversion 362/2 includes pot Kharab of 17 Gunthas and 362/3 involves Pot Kharab of 17 Gunthas, and that, the market value of Rs.23,392/- and conversion fine has been got recovered and permission is accorded for user to Industrial purpose. That, the measurement comes under "B", kharab, same is reserved for public purpose. The applicant has no right over this area and that, the rights rests in the Government. That, the Tashildar, has to make strict entries in this regard in the Revenue Records.
6. The building proposed to be constructed over the land as approved by the Public Works Department , and proper distance has to be maintained form the middle of the road belonging to National High Way and State High Way, and no building should be constructed in the open space.
7. That, the applicant has to submit Declaration before the competent authorities under Urban Ceiling Act 1976 under Section 6(1) and the said order copy is sent to the concerned authorities under Ceiling act.
8. Care should be taken to see that, the waste emitted by the Industry established in the converted land will not cause health hazard to the public at large and it shall not cause any type of pollution . That, the industry established in the converted land has to function after compliance with the



conditions imposed by the Karnataka Pollution Control Board / Environmental Department.

9. The Roads will have to be constructed to the approved lay out in accordance with the same shown in the plan.

10. Internal roads in the lay out have to be constructed in width to the extent which is approved by the competent authority of Single Window Committee.

11. The following extent of plots reserved for the public use, shall be registered and handed over to the authority.

Sl.No.	Purpose.	Length and Breadth.
1	Road.	7097.70 Sq.Mt.

12. Total Plots of different measurement approved in the Plan are as under:

Sl.No.	Purpose.	No.	Size of the Plot.
1	Industrial.	1	144337.91 Sq.Mt.
2	Garden and Open Space.	1	17873.17 Sq.Mt.
3	Vehicle Parking.	1	8952.76 Sq.Mt.

13. It has to be ensured that, the approved lay out and the civil amenities provided are in accordance with the rules of the authorities and the said authorities have to give release letter /permission letter for the sale in accordance with law and that, without the permission letter the Sales of the plots are bared.

14. The Plots will have to be got registered by producing the approved lay out, approved plan and letter issued for having provided the civil amenities in accordance with law.

15. In case of violation of any of the conditions referred above, then, this order of conversion of Non Agricultural Use would be cancelled without any prior intimation. The action would be taken to impose fine as provided under Section 96 of Karnataka Land Revenue Act 1964 and the action



would be taken to demolish un authorized constructions in the land and the expenses required for the same would be recovered as arrears of Land Revenue from the land owner.

SCHEDULE OF THE PROPERTY.

Boundaries of the land R.S.No.362/2 13 Acre 33 gunthas, 362/3 measuring 13 Acre 29 Gunthas and 366/P1 measuring 16 Acre 20 Gnthas, which is converted for Industrial purpose , situate at Ballikeri Village, Anantpur Circle, Athani Taluka, District:Belagavi.

To the East : R.S.No.362/1 and Ballikeri
and Malbar Road.

To the West : R.S.No.363. land.

To the North : Land R.S.No.361.

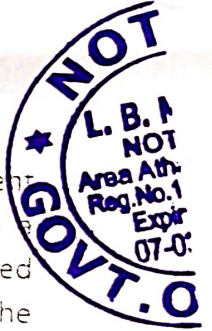
To the South : Land of R.S.No366 AND 367.

(Dr.J.Ravi Shankar)/

Deputy Commissioner, Belagavi.

Copy forwarded to the Following for further action.

1. Tahsildar, Athani, along with this, the copy of Challan, Agreement and approved lay out, and in accordance with this order with direction to mentioned the conversion of the land in the concerned Land record and has to reduce the land revenue in the name of the concerned land holder.
2. To the Assistant Director, Department of Urban Planning for further action.
3. Director , Department of Urban Development Post Box No.5257, Multi Storied Building, 4th Stage, Dr.B.R.Ambedkar Vidhi, Bengaluru-560 001.
4. Secretary, Gram Panchayat , Balligeri Taluka:Athani, with copy of approved plan attached.
5. To the members of the Single Window committee held on 13.8.2008



6. The Chairman, Shree Basveshwar Sugars Limited, Balligeri, Taluka :Athani,
the Applicant, through R.P.A.D.

7. Extra Copies.

On behalf of the
Deputy Commissioner, Belagavi.

Translated Kannada to English.

S.S. Patil
S.S. Patil Advocate



TRANSLATED
TRUE & CORRECT

Smt. L. B. Madar
Smt. L. B. MADAR.
NOTARY

08 SEP 2021

SBSL**SRI BASAVESHWARA SUGARS LIMITED**

BALLIGERI, TAL. ATHANI, DIST. BELGAVI, (K.S.)

CIN : U15421KA2007PLC041842

E-mail:-sribasaveshwarasugars@gmail.com

Ref. No. : SBSL / Adm./2021-22/

Date : 11/01/2022

UNDERTAKING

We, **Sri Basaveshwara Sugars Limited**, is proposing 50 KLPD Molasses/Sugar cane Juice based Distillery/Ethanol Plant at village. Balligeri, Tal. Athani, Dist. Belgaum, Karnataka.

In this regard we would like to undertake following :

1. The project study area is located at Survey No. 362/1, 362/2 and 366/P1 at Balligeri Village, Tal. Athani, Dist. Belgaum, Karnataka.
2. The proposed land was previously used for agriculture purpose. However, the NA conversion of the plot has been obtained (Copy attached). The further land use of the said plot will be for Industrial purpose only.

Submitted for your kind perusal and consideration.

Yours faithfully,

For **SRI BASAVESHWARA SUGARS LTD.,****(BASHIR SANDE)**

DIRECTOR, DIN- 07810742

Mob. No. 86000 25786

Regd. off.:- Block No. 402/A, 4th Floor, Ramkrishna Kamal, Opp. Sardar High School Ground,
Belgaum : 590002, Karnataka State

Corporate Office:- 'SAVIRA', S NO.97, PLOT NO-130, Right Bhusari Colony, Kothrud, Pune - 411038



Consent For Establishment (CFEs)

Consent No. CTE-325163 Valid upto: 22/03/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax: 080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 5 pages including annexure & excluding additional conditions)

Consent Order No. CTE-325163 PCB ID: 102233 Date. 04/06/2021

To,
The Applicant
Sri Basaveshwara Suagrs Ltd
Athani Taluka, District

Sir,

Sub: Consent to Establish under the Water (Prevention & Control of Pollution) Act, 1974 & the Air (Prevention & Control of Pollution) Act, 1981-reg.,

Ref: 1. CFE application submitted by the industry/organization on 18/03/2021 at Regional Office

2. Inspection of the project site by Regional Officer Belgaum (Chikkodi) on 18/03/2021

3. Proceedings of the CCM dated , held on 23/04/2021

With reference to the above, Karnataka State Pollution Control Board hereby accords **Consent for Establishment** for new Activity under the Water (Prevention & Control of Pollution) Act, 1974 & the Air (Prevention & Control of Pollution) Act, 1981 at the location indicated below subject to the following terms & conditions.

Location:

Name of the Applicant: Sri Basaveshwara Suagrs Ltd
Address: 362/1, 362/2 and 366/P1, at Balligeri Village, Anantpur Circle,
Industrial Area: Not In I.A., Balligeri,
Taluk: Athani, District: Chikkodi

Conditions:

1. This consent for establishment is valid up to 22/03/2026 from the date of issue.
2. The applicant shall not undertake expansion/diversification without the prior consent of the Board.
3. The applicant shall obtain necessary license/clearance from other relevant statutory agencies as required under the law.
4. This consent is granted considering the following activities:

Sr	Product Name	Applied Qty/Month	Unit
1	Co-generation	1440.0000	MWH
2	sugar	2640.0000	TON

I. WATER CONSUMPTION:

1. The source of water shall be from River water and total water consumption shall be as below.

Particulars	Water consumption(KLD)
Boiler Feed	95.0
Cooling Water	150.0
Domestic Purpose	15.0
Manufacturing Processes	73.0
Others	30.0
Others	27.0
Others	15.0



Consent For Establishment (CFEs)

Consent No. CTE-325163 Valid upto: 22/03/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax: 080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 5 pages including annexure & excluding additional conditions)

II. WATER POLLUTION CONTROL:

1. The discharge from the premises of the applicant shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act or Rules made there under.
2. The applicant shall treat the domestic wastewater from the factory in septic tank with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be designed as per IS 2470 Part - I and Part - II
3. The applicant shall treat the domestic wastewater in the Sewage Treatment Plant (STP) as per the proposal submitted. It shall meet the standards specified in Annexure-I & shall be used on land for gardening/greenbelt within the factory premises.
4. The quantity of domestic waste water and trade effluent generated from the proposed industry shall not exceed the permitted quantity as indicated below

Discharge of effluents under the Water Act:

Sl. No.	Description	Permitted Quantity of discharge in KLD	Mode/Place of disposal
7	Boiler Feed	4.000	-
4	Cooling Water	32.000	-
5	Domestic Purpose	12.000	Septic tank with soak pit
2	Manufacturing Processes	56.000	-
3	Others	27.000	RO Reject, Backwash & WTP Regeneration
6	Others	0.000	Steam and Condensate losses
1	Others	15.000	Washing and Lab

5. The applicant shall treat the trade effluent in proposed ETP which consists of the following;

STP & ETP details

SINo	ETP/STP NO	ETP Code	Category Name	Capacity (Meter Cubic)	Units	Remarks
1	ETP1	BS-	Bar Screen	1.60	1	
2	ETP1	MW-	Monthly Wash tank	160.00	1	
3	ETP1	CDT	P-Chemical Dousing Tank	8.00	1	
4	ETP1	CLA	P-Clarifier	21.87	1	
5	ETP1	EQU	P-Equalization Tank	54.00	1	
6	ETP1	NUE	P-Nuetralization	12.00	1	
7	ETP1	OGT	P-Oil-Grease Trap	7.20	1	
8	ETP1	PA-	Primary Aeration tank	180.00	1	
9	ETP1	CLS	S-Sec Clarifier	27.00	1	
10	ETP1	SDB	S-Sludge Dry Beds	12.60	1	

6. The applicant shall ensure that the ETP will treat the effluent to the stipulated standards as indicated in Annexure-I
7. The applicant shall not discharge any effluent outside the industry premises.
8. The applicant shall provide separate flow meter for inflow & outflow of effluents through ETP and separate energy meter and shall maintain a logbook for hourly record of meter reading for the verification of inspecting officers
9. The applicant shall discharge the effluents only to the place mentioned in the Consent order.

III. AIR POLLUTION CONTROL:

1. The Source of emission, Stack height & Air Pollution Control (APC) measures shall be as specified in ANNEXURE-II.
2. The applicant shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.
3. The applicant shall upgrade/modify/replace the control equipment with prior permission of the Board.



Consent For Establishment (CFEs)

Consent No. CTE-325163 Valid upto: 22/03/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax: 080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 5 pages including annexure & excluding additional conditions)

IV. NOISE POLLUTION CONTROL:

1. The applicant shall ensure that the ambient noise levels within its premises shall not exceed the limits i.e. 75 dB(A) Leq during day time and 70 dB(A) Leq during night time as specified in the Environment (Protection) Rules.

V. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:

1. The applicant shall collect, treat and dispose off all solid waste generated from the process other than wastes covered under the Hazardous and other Wastes (Management & Transboundary Movement) Rules 2016, in such manner so as not to cause environmental pollution.
2. The details of solid waste generated from the proposed plant and mode of disposal shall be as below.

Sr	Solid Waste Name/Type	Qty-Unit	Mode of Disposal
1	Boiler ash	60.0000 - M.T	OTH
2	molasses	960.0000 - M.T	OTH
3	ETP sludge	0.5000 - M.T	OTH
4	Pressmud	840.0000 - M.T	OTH
5	Bagasse	6840.0000 - M.T	OTH

VI. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDRY MOVEMENT) RULES 2016:

1. The applicant shall apply and obtain authorization under Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016, and comply with the provisions of the said Rules.

VII. GENERAL:

1. The applicant shall transport and store the raw materials in a manner so as not to cause any damage to environment, life and property. The applicant shall be solely responsible for any damages to environment.
2. The applicant shall not commission the proposed plant for trial or regular production unless necessary Water & air pollution control equipments are installed as specified in the Consent Order.
3. The applicant shall ensure that the treatment plant and control equipments are completed and commissioned simultaneously along with construction of the factory and erection of machineries.
4. The applicant shall not change or alter (a) raw materials or manufacturing process, (b) change the products or product mix (c) the quality, quantity or rate of discharge/emissions and (d) install/replace/alter the water or air pollution control equipments without the prior approval of the Board.
5. The applicant shall immediately report to the Board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc. in excess of the standards stipulated. And the industry shall immediately take appropriate corrective and preventive actions under intimation to the Board.
6. The Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions.
7. This CFE does not give any right to the Party/Project Authority/Industry to forego any other legal requirement, that is necessary for setting/operation of the plant.
8. The applicant shall furnish pointwise compliance to the conditions given under this consent for establishment along with the application for Consent to operate.
9. The applicant is liable to reinstate or restore, damaged or destroyed elements of environment at his cost, failing which, the applicant/occupier as the case may be shall be liable to pay the entire cost of remediation or restoration in advance an amount equal to the cost estimated by Competent Agency or Committee.
10. The applicant shall comply with all the Conditions and guidelines issued from time to time.
11. The applicant must create structure/facility for rain water harvesting and ground water recharge.
12. The applicant shall develop extensive green belt within the periphery of the plant.
13. This consent is issued without prejudice to Court Cases pending in any Hon'ble Court.



Consent For Establishment (CFEs)

Consent No. CTE-325163 Valid upto: 22/03/2026

Karnataka State Pollution Control Board
Parisara Bhavana, No.49, Church Street, Bengaluru-560001
Tele : 080-25589112/3, 25581383
Fax: 080-25586321
email id: ho@kspcb.gov.in

Industry Colour: RED Industry Scale: LARGE

(This document contains 5 pages including annexure & excluding additional conditions)

Please note that this is only consent for establishment issued to you to proceed with the formalities for establishment of the industry and does not give any right to proceed with trial/regular production. For this purpose, separate consents of the Board for discharge of liquid effluent and the emissions to the air shall have to be obtained by remitting prescribed consent fee. The application for consent has to be made 45 days in advance of commissioning for trial production of the plant.

The receipt of this letter may please be acknowledged.

Consent Fee paid : Rs. 75771

Note:

The Conditions II.3 mentioned in the schedule are not applicable.

Additional Conditions:

COPY TO:

1. The Environmental Officer, KSPCB, Regional Office, Belgaum (Chikkodi) for information and to inspect the industry during your next visit to the area.
2. Master copy (Dispatch).
3. Office copy.

ANNEXURE- II

Chimney No.	Chimney attached to	Capacity/ KVA Rating	Minimum chimney height to be provided above ground level (in Mts)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Fuel	Air pollution Control equipment to be installed, in addition to chimney height as per col.(4)	Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	D.G. Sets	350 KVA D. G Set	6	PM(mg/NM3), SO2 (PPM), NOx(PPM)	00,00,00	DIE	AEC, N.A	Before commissioning.
2	Boiler	boiler 20 TPH capacity	33	PM(mg/NM3), SO2 (PPM), NOx(PPM)	<100, <10, <25	BAG	SCR	Before commissioning.

Note:

AEC, N.A : Accoustic Enclosures

SCR : Scrubber



Consent For Establishment (CFEs)

Consent No. CTE-325163 Valid
upto: 22/03/2026

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LOCATION OF SAMPLING PORTHOLES, PLATFORMS, ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to at least eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Construction Valve, Fitting or Visible Flame or rectangular stacks, the equivalent diameter can be calculated from the following equation.

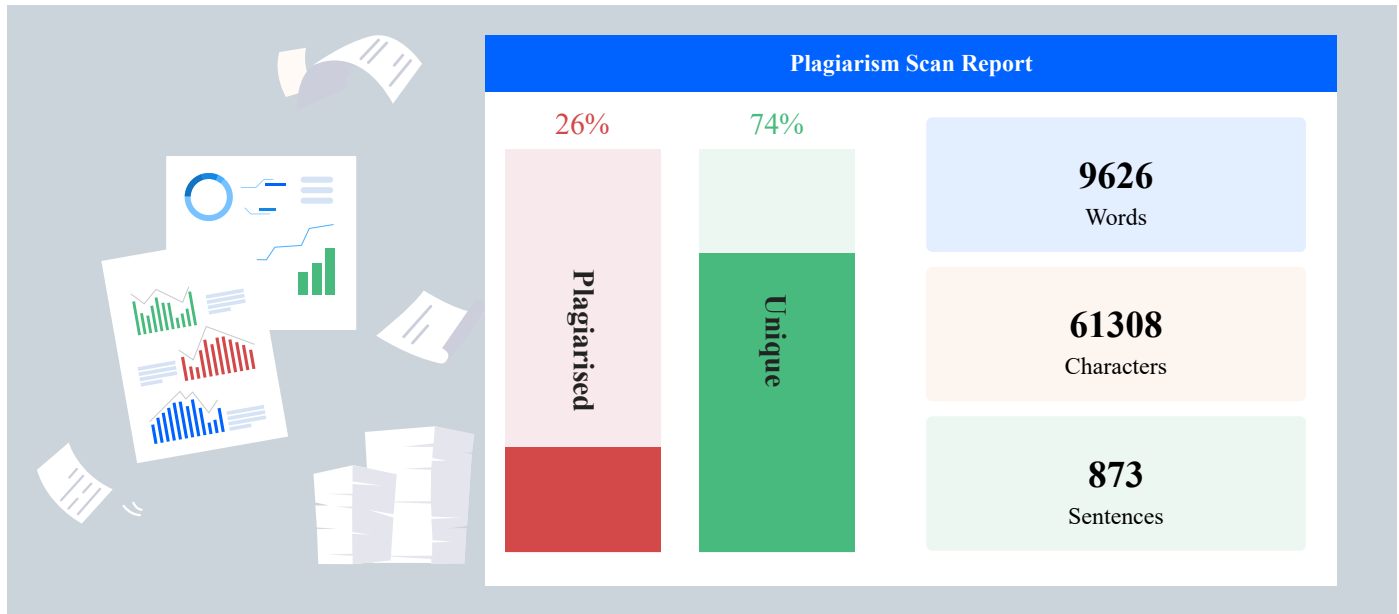
$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 100mm dia". Arrangements should be made so that the porthole is closed firmly during the non sampling period.
3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.
4. The ladder shall be provided with adequate safety features so as to approach the monitoring location with ease.

FOR AND ON BEHALF OF KARNATAKA
POLLUTION CONTROLBOARD

Signature Not Verified

Digitally signed by
Date: 2021.06.04 16:59:42
+05:30



Given Content

Sri Basaveshwara Sugars Limited (Company) is incorporated as Limited company on 11th of September, 2007 vides CIN No. U15421KA2007PLC041842 with the main object as “manufacturing of sugar and ethanol” at survey no. 362/1, 362/2 and 366/P1 of Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Sri Basaveshwara Sugars Limited proposes to set up new 50 KLPD Molasses/Sugar Cane Juice based Distillery (ENA/Ethanol) Plant with 800 TCD Sugar Plant at Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Factory has obtained Consent for Establish from KSPCB Bangalore vide CTE-325163, Dated 04.06.2021 for 800 TCD sugar and 2 MW captive generation. Proposed 50 KLPD distilleries come under EIA notification 2006 & its amendments thereof. Project will get appraised under Cat A, at EAC Ind-II, New Delhi, MOEF&CC, as interstate boundary of Maharashtra and Karnataka is within 5.0 km of the Project Site. Hyderabad, Chennai, Chandigarh, and Ahmadabad etc. With experience, expertise and track record developed over last almost three decades, MITCON provides diverse range of macro and micro consultancy services in the areas of Environment Management and Engineering (EME), Energy Efficiency, Biomass and Co-gen power, Agricultural Business and Bio-technology, Infrastructure, Market Research, Banking Finance and Securitization, Micro Enterprise Development, IT Training and Education. EME division of MITCON serves to various sectors like – GIS & RS, solid waste, infrastructure, power, sugar, engineering, chemical, real estate etc.

MITCON Consultancy & Engineering Services Ltd. is accredited from National Accreditation Board for Education and Training (NABET), Quality Council of India for the EIA consultancy services in 16 sectors.

1.4 Brief Description of the project

Sri Basaveshwara Sugars Limited (Company) is incorporated as Limited company on 21st of February, 2007 vides CIN No. U15421KA2007PLC041842 with the main object as “Manufacturing of Sugar and Ethanol” at Survey No. No. 362/1, .362/2 and 366/P1 of Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Sri Basaveshwara Sugars Limited proposes to set up new 50 KLPD Molasses/ Sugarcane Juice based Distillery (ENA/Ethanol) Plant at Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka.

Distillery / ethanol plant will employ fermentation, multi pressure distillation system, evaporation & spent wash dryer. The sugar plant will supply B-heavy/C-molasses/ sugarcane juice to the distillery plants & bagasse as support fuel for the boiler. The boiler & turbine will supply steam & power to the proposed distillery plant & Sugar plant during the operating periods internally.

1.5 Importance to Country and region

India is one of the largest producers of sugarcane as well as sugar in the world. Sugarcane is a cash crop for farmers. There are about 564 installed sugar factories in India. The sugar industries are located in rural areas providing employment to rural masses. Sugar factories in Maharashtra are the backbone of rural economy. These factories have contributed for the development of economy as well as infrastructure in rural areas, generated ample of employment opportunity to local people.

The importance of alcohol especially for the ethanol-blending program in the energy security of the country cannot be over emphasized. In addition to reducing the petroleum imports and saving foreign exchange, the use of fuel ethanol

also helps to reduce air pollution. Sale of fuel ethanol will also help sugar industry to improve liquidity and pay fair remunerative price to sugar cane growers. Thus, ethanol production is beneficial to sugar cane growers, local community as well as the whole country. The Government of India has also recognized the importance of this issue and has offered financial assistance to distilleries so as to increase the production of alcohol for fuel ethanol.

1.2 Identification of Project & Project Proponent

Sri Basaveshwara Sugars Limited is promoted by:

1. Prof. Dr. Shivajirao Shripatrao Kadam- Founder
2. Mr. Raghunathrao Shripati Kadam – Director
3. Mr. Ramchandra Atmaram Kadam – Director
4. Mr. Sagar Subrao Kadam – Director
5. Mr. Mahesh Jaysingrao Kadam – Director
6. Mr. Vijay Raghunath Kadam – Director
7. Dr. Vijay Laxman Koli – Director
8. Mr. Bashir Nijam Sande – Director
9. Mr. Devendra Sitaram Mayekar – Director

Sri Basaveshwara Sugars Limited is in process of appointing a technical/managerial team of qualified engineers, contract & arbitration experts, agricultural officers and other managerial personnel for implementation and operation of the captioned integrated project. It was decided to propose 50 KLPD distillery considering the viability & financial portability of the project.

1.3 EIA Consultant

MITCON Consultancy & Engineering Services Ltd., (MITCON) is a rapidly growing, an ISO 9001- 2015 certified Consultancy Company, promoted by ICICI, IDBI, IFCI, and State Corporations of Maharashtra and Public Commercial Banks. It was established in 1982; with Head Office at Pune and with secondary offices all over the country counting Mumbai, Delhi, Bangalore, 1.1 Applicable Environmental Acts & Rules

As per the notification, proposed project falls under 5 (g) cat. A. The subsequent are the some other acts and rules related to environment which will be related to the proposed project

- EIA Notification dated 14th September, 2006 and its subsequent amendments.
- Air (Prevention & Control of Pollution) Act, 1981
- Water (Prevention & Control of Pollution) Act, 1974
- The Batteries (Management and Handling) Rules, 2001 & amendment rules 2010
- The Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000
- Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016
- Solid Waste Management Rules, 2016
- E-Waste Management Rules 2016
- E-Waste (Management & Handling) Rules, 2011

1.3 Objective and Scope of the Study

The proposed project received Standard TOR from Minister of Environment, Forest and Climate Change, EAC II, No.IA-J-11011/67/2021-IA-II (I) dated 2nd March 2021 which is attached in Annexures. The baseline studies required for EIA report has been conducted as per the Office Memorandum issued by MoEF&CC dated 27.08.2017. Detail baseline study was undertaken during the month of Dec 2020 to Feb 2021. The objective of the study is to carry out Environmental Impact Assessment (EIA) for the proposed project, to meet the environmental compliances laid down by the Ministry of Environment and Forests (MOEF&CC), Government of India.

2.1 Type of Project

Sri Basaveshwara Sugars Limited (Company) is incorporated as Limited company on 11th of September, 2007 vides CIN No. U15421KA2007PLC041842 with the main object as “manufacturing of sugar and ethanol” at survey no. 362/1, 362/2 and 366/P1 of Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Sri Basaveshwara Sugars Limited proposes to set up new 50 KLPD Molasses/Sugar Cane Juice based Distillery (RS/ENA/Ethanol) Plant with 800 TCD Sugar at Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Factory has obtained Consent for Establish from KSPCB Bangalore vide CTE-325163, Dated 04.06.2021 for 800 TCD sugar and 2 MW captive generation. Proposed 50 KLPD distillery comes under EIA notification 2006 & its amendment thereof. Project will get appraised under Cat A, at EAC Ind II, New Delhi, MOEF&CC, as interstate boundary of Maharashtra and Karnataka is within 5.0 km from project site.

2.2 Need of the project

The need and importance of the proposed Alcohol / Fuel Ethanol plant, is given below:

- The demand for Industrial alcohol, potable alcohol and fuel ethanol is increasing. Government of India is also planning to mix 10 % fuel ethanol on petrol, once the 5 % blending programme is implemented successfully.
- The important chemicals that could be made from alcohol are acetic acid & butanol, which are needed in pharmaceuticals, paints & in many other areas are important industries as they are value added products.
- With latest technological development & taking into account the increasing cost of petrochemical raw material, it is now possible to produce Ethylene oxide, Mono-ethylene glycol etc. starting from ethanol.

- There is good market for Extra Neutral Alcohol for manufacture of good quality perfumes, homeopathic medicines, tonics and other pharmaceutical products and potable liquor.
- Fuel ethanol has a great future as renewable source of energy. The newest trend for a fuel in the world is use of fuel ethanol as a substitute for mineral fuel oil, which is reducing as far as fuel oil is concerned.
- Fuel-ethanol could be used in petrol as oxygenate which reduces emission of carbon monoxide in the exhaust gases of vehicles, by taking combustion to completion. • Anhydrous alcohol is water free ethyl alcohol. The anhydrous alcohol denatured with 0.5 % Kerosene was used to blend with petrol in the production of power alcohol of 20 % alcohol and 80 % petrol composition.
- World ethanol production has increased at a steady rate in the last few years. In 2018, there was a production of 108.32 billion liters of fuel ethanol with the US accounting for about 60.80 billion liters (56.12 %) of this production followed by Brazil at 30.77 billion liters (28.41 %). About 85 % of the total ethanol produced was used for blending into petrol and only a small quantity was used for drinking and other purposes. Many countries from Asia, Africa, and Europe & South America are now entering into ethanol production and it's blending with petrol.
- Growth in export of alcohol is impressive during last decade. The policy of Central Government is to increase percentage of ethanol blending with petrol from the present 10% to 20% by the year 2022 as stated by Hon. Prime Minister of India, Mr. Narendra Modi.

Therefore, it is important for all distilleries in the country to increase its ethanol production to meet the increasing demand. The technical performance of Sri Basaveshwara Sugars Ltd. (SBSL) is extremely good. All determinations are made to increase the recovery and reduce losses of sugar. Based on availability of own molasses and due to increasing demand of alcohol, the SBSL management has decided to install 50 KLPD distillery unit to produce rectified spirit / ENA or fuel ethanol.

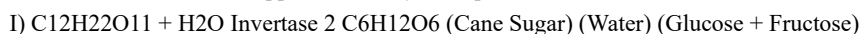
(Source DPR given by client)

2.3 Project Location

The project study area is located at Survey No. 362/1, 362/2 and 366/P1 at Balligeri Village, Anantpur Circle, Taluka Athani, District Belgaum, and Karnataka. Unit is geographically located at 16°51'57.32"N and 75°7'33.11"E and lies around 608 m above MSL. Maharashtra –Karnataka Interstate boundary is at ~1.81 km from the proposed project site. Location map of the Project site is shown below as Figure 2-1. The land requirement for proposed industry unit is already in possession. Project site is connected to SH 31 Jath-Athani Road 1.35 km in E direction and adjacent village road which connects to Malabad village. Nearest city place Athani 16.7km in South. Nearby no Eco-sensitive zones such as Tropical Forest, Biosphere Reserve, National Park, Wild Life Sanctuary, and Coral Formation Reserves within 10 km Influence Zone. Krishna River is flowing at a distance of 27 km in South-East. Environmental setting around the Project location is given in below table.

2.7 Process for Manufacture of Alcohol

Sugarcane juice/ Sugarcane syrup/Molasses is the chief raw material used for production of alcohol. Throughout the fermentation, yeast strains to the species *Saccharomyces cerevisiae*, a living microorganism belonging to class fungi converts sugar present in the molasses such as sucrose or glucose in to alcohol. Chemically this transformation for sucrose to alcohol can be approximated by the equation:



(Glucose/Fructose) (Ethyl Alcohol) + (Carbon dioxide)

Thus, 180g of sugars on reaction gives 92g of alcohol. Therefore, 1 MT of sugar gives 511.1 kg of alcohol. The specific gravity of alcohol is 0.7934, therefore, 511.1 kg of alcohol is equivalent to $511.1 / 0.7934 = 644.19$ Liters of alcohol. During fermentation process, other by-products like glycerin, succinic acids, etc. also are formed from the sugar. Therefore, only about 94.5% total fermentable sugars is obtainable for alcohol conversion. Thus, theoretically, one MT of sugar will give only $644 \times 0.945 = 608.6$ Liters of alcohol, under ideal condition.

Generally only 80 to 82% efficiencies are realized in batch kind plant. One MT of C heavy molasses containing 45% fermentable sugars give an alcoholic yield of 260 liters per MT. All the sugars are not converted to alcohol during the process or fermentation since chemicals such as glycerin, succinic acid, etc. are also produced by yeast during their metabolic process. Therefore, it is not possible to have 100% efficiency of conversion of sugars to alcohol.

FERMENTATION

The continuous fermentation process involves addition of fresh nutrients medium either continuously or intermittent withdrawal of portion of nutrient for recovery of fermentation products. In continuous process, Fermenter is in constant usage with little shut down and after initial inoculation of yeast culture, further inoculation is not necessary. It is maintained with the help of plate heat exchanger and recirculation pumping system.

The CO₂, which is liberated, is scrubbed in water, with the help of CO₂ Scrubber. This CO₂ contains ethanol, which is recovered by transferring CO₂ Scrubber water into fermenter. A closed loop cooling tower system with circulation pumps is also provided to ensure higher Cooling efficiency and to minimize water wastages.

MULTIPRESSURE VACUUM DISTILLATION

Multi-pressure distillation system for production of Rectified spirit consists of distillation columns namely – For – Rectified Spirit mode

1. Degasifying cum analyzer column
2. Rectification column
3. Fusel Oil Concentration column
4. Extractive Distillation columns

For –ENA mode

1. Degasifying cum analyzer column
2. Pre-rectifier column
3. Extractive Distillation column
4. Rectification Column
5. Refining /Simmering column
6. Fusel Oil Concentration column
7. Head Concentration column

Advantages of MPR Distillation:

- a. Maximum heat integration is possible.
- b. Few columns operate under vacuum, few under pressure, few under atmospheric pressure.
- c. Low steam consumption with reboiler (2.2 Kg/lit. of Rectified Spirit)
- d. Spent wash generation is less.

MOLECULAR SIEVE DEHYDRATION (MSDH) / DEHYDRATION SECTION

The Molecular Sieve Dehydration Unit is designed to produce Motor Fuel Grade Ethanol (MFGE). Rectified spirit from Rectifier Column is pumped the Recovery Re-boiler which is preheated in the heat exchanger against steam condensate coming from the recovery column. The preheated feed enters the Recovery Column. The Recovery Column is pressurized & its purpose is to vaporize the ethanol feed & to process the recycle liquid coming from the Mol Sieve Regeneration system. Since the ethanol feed has already been rectified & only needs to be vaporize, it can be fed at or near the top of the Regeneration column. Energy is provided to the column via the Re-boiler using steam. The steam condensate flows through the feed Preheater to steam condensate return system. Anhydrous ethanol vapour is fed to the Mol. Sieve Unit. It is first superheated in the Mol. Sieve Super heater, against steam. This is to prevent condensation of liquids onto the molecular sieve bed, which would decrease their adsorption efficiency. The superheated ethanol vapours are directed to the Mol Sieve Units for dehydration. The vapour passes up through one bed of molecular sieve beads at a pressure. Anhydrous ethanol vapour exits the Mol Sieve Units. The Molecular Sieve Units are cycled so that one is regenerating while the other is adsorbing water from the vapour stream. The regeneration is accomplished by doing two things. First, a vacuum is applied to the bed undergoing regeneration. Second, a portion of the anhydrous ethanol vapour stream is directed down through the bed. This combination causes water to desorb from the molecular sieve beds & transfer into the ethanol vapour stream. The mixture of ethanol & water is condensed in the Weak Alcohol Condenser against cooling water. Any uncondensed vapour leaving the vent of the Weak Alcohol Condenser enters the weak alcohol tank, where it is contacted with cooled regenerate liquid. The liquid regenerate stream is collected in the Weak Alcohol Tank. The regenerate liquid is circulated through the Weak Alcohol Recirculation Cooler for cooling against cooling water & sprayed into the Weak Alcohol Tank.

The portion of the regenerate liquid is pumped out of the circulation loop & fed to recovery Column, another portion of regenerate liquid flows to the Mol Sieve Vacuum pump. The Mol Sieve Vacuum Pump provides the vacuum source for the system. It is used to pump down the System during start-up & to remove non-condensable during steady state operation. The seal Liquid & non-condensable leaving the Vacuum Pump is separated in the Vacuum drum. This Liquid is returned to the Weak Alcohol Tank. Anhydrous ethanol vapour from the Mol Sieve Units passes to the Mol Sieve Condenser, where it is condensed against cooling water. Anhydrous ethanol product flows by gravity through the Product cooler, to product storage.

(Source DPR provided by client)

EVAPORATION

Evaporation is the process to remove a liquid from a solution, suspension, or emulsion by boiling off some of the liquid. During the evaporation of spent wash we use falling film evaporators. In falling film evaporators, liquid and vapours flow down in parallel flow. An even thin film enters the heating tubes via a distribution device in the head of the evaporator, the liquid flows downwards at boiling temperature, and is partially evaporated. This gravity-induced downward movement is increasingly augmented by the concurrent vapour flow. Alcohol vapours are used when the system is integrated with distillation section and steam is used when system is designed for standalone operation in the first evaporator. Spent wash vaporized in first stage gives energy to second stage, second to third, third to fourth & Vapours of fourth effect are condensed in a surface condenser. Vapour condensate from first effect is used as feed to distillation column when it is integrated evaporation. Steam condensed in first stage during standalone evaporation system is sent back to Boiler / CPU as steam condensate. There are total four number of falling film evaporators.

Evaporators are in forward feed arrangement. Also, preheater is provided with backward feed arrangement. Falling film evaporators can be operated at very low temperature differences between the heating media and the boiling liquid, and they have very short product contact times, typically just a few seconds per pass.

Falling film evaporators are highly responsive to alterations of parameters such as energy supply, vacuum, feed rate, concentrations, etc. it will be equipped with a well-designed automatic control system therefore it can produce a very consistent concentrated product. And are designed in such way that the flow velocity in the tubes is high, which prevent the choking of the tubes. The process condensate is collected in a tank and sent for further treatment. Final concentrated spent wash comes out from final effect and it is sent to Boiler along with the bagasse.

3.1 Introduction

Field monitoring was done for primary data collection of various environment components such as air quality, water quality, soil quality, noise, etc. Also, secondary data such as micrometeorology, flora and fauna, socio-economic aspects, hydro-geological studies, traffic study etc. was collected from authenticated sources was used as a guideline and reference material. The complete records have been collected through actual physical surveys and observations, literature surveys, interaction with locals, government agencies, and departments. The baseline study begins with site visits and reconnaissance survey in the study area.

The guiding factors for the present baseline study are the requirements prescribed by the guidelines given in the EIA Manual of the MoEF&CC and methodologies mentioned in Technical Guidelines Manual for Distillery Projects.

3.2 Site Reconnaissance Visit

Reconnaissance visit was conducted to M/s. Basaveshwara Sugars Ltd Dec 2020. During the visit, sampling sites were identified and finalized for monitoring of environmental parameters. Some photographs of the existing project site taken during Site Reconnaissance survey are shown as Figure 3-13.

3.3 Baseline Environmental Study area and Period

As a requirement of EIA process, primary baseline data has been collected at the Project site, as well as within 10 km radial distance around the project site ("Study Area"). Primary Baseline data was collected for prominent environmental attributes like ambient air, water, soil and noise, while data from authenticated sources (Secondary data) was collected for geology, hydrogeology, meteorology, socio-economic features, terrestrial ecology, land use, etc. The baseline studies were conducted during post-monsoon & winter seasons in the period of 1st December 2020 to 28th February 2021. SOI toposheet showing project plot boundary and 10 km study Area is shown as Figure 3-23.

3.5.1. Geomorphology & Topography

The geomorphology of the district is categorized by vast stretches of undulated plains interspersed with sporadic ranges or isolated clusters of low ranges of rocky hills. Athani taluk falls in the plain region. The Krishna River basin have Athani taluk, Belagavi district falls under it. The important rivers of the district are Krishna and its tributaries

The topography of the study area is generally falls on the Plain terrain of northern Dry zone of Karnataka State. The Project Site is situated at Latitude: 16°51'58.04"N, Longitude: 75° 7'30.10"E, the present status of the land is open land. The general Slope & Relief Map of Karnataka, with approximate location of the project site is shown as Figure 3-3, while Figure 3-4 shows Geomorphology in Karnataka state.

3.5.2. Seismicity Figure 3-5 shows the project location marked on BMTPC Earthquake hazard map of India as well as that of Karnataka state, showing location of Project site in Zone-II i.e. Low Damage Risk Zone (MSK IV or less).

3.5.3. Drainage

Belgaum district is drained by three main river systems, which are dendritic type and have matured valleys, namely the Krishna River, the Ghataprabha River and the Malaprabha River.

The Athani taluk, Belagavi district falls under Krishna River basin. The Krishna River originates near Mahabaleshwara in Western Ghats. It enters Belgaum district at Kurunwada, nearly 60 Kms from Kolhapur. The Krishna River is flowing nearly 27 Kms from the project site. The Drainage network is influenced by South-West Monsoon. The drainage map of 10 km Study Area of the Project site is shown below as Figure 3-6.

3.5.4. Land Use / Land Cover

Land use is the man's activities on and in relation to the land, while land covers describes the natural vegetation, water bodies, rock/soil and artificial constructions covering land surface (Burley, 1961). Land use/ land cover map is an indicator of ecological and overall socio-economic status of the area. Land use is a product of interaction between a society's cultural background skill and its physical needs on the one hand, and the natural potential of the land on the other. Thus, the land use data and its spatial distribution are very useful for analyzing and preparing the land use plan of the area.

Site specific Land Use / Land Cover Map in 10 km Study Area around the Project Site is shown below as Figure 3-7, while false colour composite image of 10 km Study Area is shown as Figure 3-8. Land Use/Land cover for 10 km radius around the project site were delineated based on the Landsat ETM+ satellite data; the Land use / Land cover classes are categorized based on ground truthing and site visit. Land is classified into vegetation, barren land, built-up area, water bodies, etc. classes. Land use of the study area is predominantly agricultural as seen from Table 3-3.

3.3.6 Traffic Study

The traffic survey monitoring was performed in Dec 2020 to predict the future traffic growth and the load on the Sugar Factory approach road and surroundings due to the proposed project. These roads are wide enough to facilitate easy and smooth movement of heavy duty trucks.

It will help:-

- To establish the existing trips/ day without the project activity;
- To understand the increment on the traffic load due to the project activity;
- To know the existing road will sustain or not after the commission of the project.

Methodology

Generally traffic surveillance study involves one or other survey techniques either by manual observation or automatic method by using instruments. The traffic survey methodology adopted for current study is manual observation. The survey by this method mostly involves visual counts by the survey team. The sampling locations for the study are depicted in Figure 3.9 and provided in Table 3.7

Equipment utilized

- 1) Garmin GPS - was used to locate the pre-decided observation points.
- 2) Measuring Tape - A measuring tape was used to measure the road breadth.categorization of Traffic

To establish effective vehicle count during the survey the traffic was categorized into Truck, Tempo, Car, Auto (Three Wheelers), Motorcycle (Bike), Cycle & Bullock cart. The results of vehicle count are converted into Passenger Car Units (PCU's) as per the equivalent PCUs prescribed by Indian Road Congress (IRC) guidelines, as given in following Table 3.53.7 Meteorology

Micro-meteorological data within the study area during the air quality survey period is a crucial part of air pollution studies. The recorded meteorological data during the monitoring period is a useful tool for the understanding of the baseline condition as well as for the idea to projecting models for air quality dispersion.

The nearest IMD observatory from the Project site is located at a distance of 51 Km towards west (Upwind direction) in Miraj, Maharashtra.

As per IMD's classification of meteorological seasons in India, the year can be classified into the following four seasons:

- Winter season (January to February)
- Pre-monsoon season (March to May)
- Monsoon season (June to September)
- Post-monsoon season (October to December)

The baseline environmental studies for the present project were conducted from December 2020 to February 2021 (i.e. Post-monsoon and winter seasons).

3.7.1. Methodology

The methodology adopted as per the standard norms laid down by Bureau of Indian Standards, and the India Meteorological Department (IMD). On site monitoring was undertaken for various meteorological variables in order to generate the site- specific data. The data generated has been compared with meteorological data generated by the nearest IMD Observatory at Miraj, Maharashtra.

3.7.2. Site-specific Meteorological Data

An automatic weather monitoring station was installed at a height of 10 meters from the ground level at proposed site to monitor parameters of wind speed and wind direction, temperature & relative humidity. The 24-hourly meteorological data was collected for the study period from December 2020 to February 2021. The data is recorded as the maximum, minimum, instantaneous value, and average value of all the readings collected during the preceding hour. Monitoring was done as per IS: 8829: Micro-meteorological Techniques in Air Pollution. The details of parameters monitored, equipment used and the frequency of monitoring are given in Table 3-3.7.3. Average Meteorological Condition (Source: IMD – Miraj)

The mean maximum temperature, highest maximum temperature, mean minimum temperature, lowest minimum temperature and total monthly rainfall for the period - 1981 to 2010, was collected from GOI, Ministry of Earth Sciences. The average of meteorological data based on Climatological Normals (1981-2010) from the IMD observatory at Miraj is presented in Table 3-3.7.4. Temperature

The temperature of the region varies ranges from 11.1°C to 41.0°C approximately. The winter season is from December till February end. During this season, monthly mean maximum temperature is found to be 34.1°C occurring in the month of February whereas, monthly mean minimum temperature recorded is 14.4°C in the month of January.

3.7.5. Relative Humidity

The average Relative Humidity of Sangli-Miraj-Kupwad is around 51-78%. The most humid month of the year is August with humidity varies from 76.0% to 89%. The least humid month is of the year is March, with humidity varies from 30.0% to 68.0%.3.7.6. Climate & Rainfall

The climate of Belgaum district is semi-arid. The district experiences pleasant winters and hot dry summers. the recent season extends from March to May, during which the daily maximum temperature often shoots up to 35.70C.

Agro-climatologically the district are often divided into three zones i.e. high rainfall "Hilly zone", "Northern transitional zone" and "Northern dry zone" from southwest to northeast respectively. the traditional rainfall within the district decreases from quite 1859 mm in Khanapur taluk within the southwest, to but 491 mm in Raybag taluk towards north-easterly direction. Those areas, that receive but 750 mm annual rainfall are classified as semi-arid and thus

drought prone. Hence, the whole district except, the south-western part is categorized as semi-arid and drought prone. Total normal rainy days vary from 90 in Khanapur to 37 in Athani. Eastern and north-eastern parts of the district are susceptible to drought of mild nature. Wind speed and wind direction

Site specific meteorological data was analysed for the study period from Dec 2020 to Feb 2021 and is represented in wind rose diagram which shows that predominant wind direction during baseline monitoring period was from East (E) followed by East-South-East (ESE). The average wind speed is around 2.96 m/s. The Annual Wind-rose for Sangli-Miraj i.e. IMD - Miraj, which is the nearest IMD station to the Project Site, along with and site specific Wind rose is shown below as Figure 3- & Figure 3-12.3.8 Ambient Air Environment

Air quality is an important parameter of the baseline environment and its study is an indispensable tool for planning further development in the adjoining areas of the project. The extant air quality was studied to assess the current status of the same and to check the air quality status of the region vis-à-vis the air quality standards prescribed by the Central Pollution Control Board. Ambient air quality monitoring was conducted at 9 locations, details of which are given in Table 3-. The monitoring locations have been selected primarily based on the predominant wind direction and accordingly 1 location was selected in the Up-wind direction, 2 locations in the Cross-wind direction, and 4 locations were selected in the Down-wind direction from the project site. The other factors considered while selection of the monitoring stations include topography, representative nature of the sample, accessibility, location of receptors and availability of power.3.9 Ambient Noise Environment

Ambient noise levels were monitored at 8 locations within the study area, including one at the Project site, identified during preliminary baseline survey. Continuous (24-hour) Noise level sampling was carried out once in the Study Area, in January 2021. Noise levels were measured by Noise meter, at predetermined sampling locations, the details of which are shown in Table 3-. Sampling locations on Toposheet are shown in Figure 3-11.3.9.1. Methodology

The methodology adopted for Noise Monitoring is outlined below:

- Site visit and identification of sources of noise
- Identifying monitoring locations and conducting noise monitoring
- Determining possible impacts of noise on the environment from proposed activities
- Suggestions of mitigation measures of noise and to reduce noise of sources exceeding the allowable limits

The noise monitoring locations are identified on the basis of following considerations:

- Source: The proximity of the villages to the alignment. The closer the villages are the severe would be the impact.
- Path: The meteorology and the wind flow affects the impact on the receiver. The impact is higher during night time and low in daytime (for the same intensity produced by source). Likewise, the impact is high during inversion conditions or on locations lying at the downwind of the alignment.
- Receiver: The impact is higher if the receiver is considered to be sensitive w.r.t the NAAQ Standards for noise. Such sensitive receptors could be hospital, school, libraries etc. Also, a high duration low intensity impact can be as detrimental as low duration high intensity impact.3.9.3. Inferences

The Noise monitoring results at all sampling locations are within the prescribed standards shown in Table 3 11. The maximum noise level in day time is 51.2 dB (A) and in night is 41.6 dB (A) which were observed in Tawashi & Gugwad village resp. Minimum noise levels in Day time was 42.35 dB (A) and minimum noise levels in night time was 36.21 dB (A) was observed at project site as there was no major activity.3.10 Land Environment

3.10.1. Geology

Complex geological formations can be observed throughout Belgaum district. Noteworthy among which are the schists and Banded Ferruginous Quartzites, the Peninsular Gneiss by Granite and Gneissic Granites, the Kaladgi Formations consisting sandstones, quartzites, shales and limestones & dolomites, the Deccan Trap Basalts and the Laterite formations.

The Deccan Basalt, generally known as “Trap” or “Deccan Trap” occupies a large extent in the Northern part, thinning out towards South. The origin of Trap is attributed to volcanic eruptions in the late Cretaceous to Upper Eocene in the state of Maharashtra and resultant surface flows in to Karnataka. At least 3-4 volcanic flows can be seen above ground level (640m) and 3-4 flows, below surface level. Individual trap flow is marked by inter-trappean bed, usually filled with Zeolites, Amygdaloids, Quartz, Jasper, Calcite etc. as cavity filling deposits. Well-developed onion of exfoliation type weathering, vertical and columnar joints can be noticed. Flat-topped hill ranges can be seen in Belgaum, Khanapur, Hukkeri, Chikkodi, Athani and Raibag talukas. This formation being the younger, it is observed to be overlying older sandstones, schists, gneisses, limestones etc.

In many parts of Athani taluka, central parts of Chikkodi and Raibag taluka, the inter-trappean beds are exposed in the form of reddish, deep brownish soil, often mixed with the amygdaloids, jaspers, zeolites etc. The formation being porous, the seepage and evaporation are on higher side. In rainy period the water level rises to as shallow as surface level and goes as deep to tune of wells going dry. The wells and bore wells in this formation show a fluctuation of 15-25 m. Almost all stone crushers in the district are in trap formation itself. A map showing various geological formations of Belgaum district, with approximate location of the Project Site, is shown as Figure 3-12.3.10.2. Soils

The soils of Belgaum district can broadly be classified into red soils and black soils. These soils vary in depth and

texture, depending on the parent rock type, physiographic settings and climatic conditions. By and large, black soils predominate the Deccan Trap terrain and the red soils are found in the south-western and south-eastern part of the district in gneissic terrain. These soils are predominantly derived from Deccan traps and occupy large parts of the district. They are dark greyish-brown to very dark greyish-brown with clayey texture. These are derived from the weathered products of basalts and limestone and are darker in valleys than in high lands. Their texture varies from loam to clay, with low to moderate infiltration characteristics. Figure 3-13 shows Soils of Karnataka state with approximate location of the Project site.

3.9.2.1 Methodology

- Manual sample was collected from the surface to plough depth (0-22 cm) using hammer and container bags for collecting undisturbed top soil.
- Locations such as recently fertilized farms, old bunds, marshy spots, spots near trees, compost heaps and farm sheds, etc. were avoided.
- Each collected Sample was a uniformly thick 2 cm slice of soil from the exposed soil face from a V-shaped hole dug in the ground.
- Selection of locations for soil sample was done on the basis of nearness to impact zone and possibility of alteration in the characteristics of soil due to failure of pollution control equipment and surface runoff.

3.9.2.4 Inferences of Soil Sampling and Analyses

- All the samples have pH in the range of 8.52 to 7.95. As per the above table, it can be seen that the pH of all the sampling locations are on Neutral to slight Alkaline.
- Conductivity of the samples ranges between 765.8 to 1011.8 $\mu\text{s}/\text{cm}$. Hence, it can be stated that the soil is not harmful for germination or cropping.
- The bulk density of soil in the study area is found to be in the range of 1.04 – 1.20 g/cm^2 . It can be observed from the results that the soil is ideal for plant growth.
- N, P, K concentration in all soil samples are in the range of 118.1 to 172.1 kg/ha , 5.23 to 10.13 kg/ha and 85.3 to 114.3 kg/ha respectively.
- Heavy metals like Copper, Cadmium, Lead, Chromium and Manganese are all less than 0.4 mg/kg in all the sample.
- Overall it is observed that the soils of the region is good for agriculture.

3.10.3. Hydrogeology

Water table generally follows the topography of the area and is at greater depths in the water divides and topographic highs, but becomes shallower in the valleys and topographic lows and therefore, groundwater moves down and follows the gradient from the higher to lower elevations, that is, from recharge area to discharge area. Therefore, locally direction of flow from higher elevations is towards the rivers. Overall, the general flow direction of ground water in the district is generally towards the east.

The district is underlain by gneisses, schist, limestone, sandstone, basalts, alluvium etc. of Archaean to Recent age. Deccan basalts cover an area of 7,650 sq. km. in the northern part of the district and have a maximum thickness of around 256 m, which gradually thins out in the southern direction. Hydrogeological Map of Belgaum district in Karnataka is shown below as Figure 3-.

Hard rocks occupy a major part of the district; majority of which are basaltic lava flows. Most of these rocks have poor capacity of storing and transmitting water, except through favourable zones and at favorable locations. Aquifer systems encountered are therefore limited in nature. Ground water occurs both in weathered and fractured zones. Ground water occurs in all weathered formations of the district under phreatic conditions and in fractured and jointed formations under semi-confined conditions.

Deccan basalts act as a multilayer aquifers having low to medium permeability. In Deccan basalts that comprise different flows, fractures and interstitial pore spaces of vesicular zones, are good repositories of ground water. Groundwater occurs under phreatic conditions in weathered zone of these basalts and under semi-confined to confined conditions in inter-trappeans and also in joints and fractures at deeper levels. In limestone, solution cavities are considered to be more potential than weathered and fractured ones. In gneisses and schist, weathered zone varies from 7 to 12 m and water-bearing zones extend down to 80m. The aquifers occurring within the shallow depth range of 0 to 20 m bgl are mainly weathered and fractured formations. Groundwater occurs in these formations under phreatic conditions and the average thickness of these aquifers ranges from 5 to 15m. In general, 60% area of the district is having the weathered thickness in the range of 5 to 10 m. About 25% of the district area has weathered thickness in the range of 10 to 15m and 15% in the range of 15 to 20m.

3.9.3.2 Major Ground Water Problems and Issues

Canals and lift irrigation schemes along major rivers are irrigating nearly 131712 hectares of land in the district that constitutes 28.3 % of the irrigated area. Although the area irrigated from these sources is only 16.5 % of the net sown area, it has been observed that large tracts of land in the canal command areas are facing waterlogged conditions and groundwater salinity. The problem is more acute in Ghataprabha and Krishna river command areas. There is an urgent need to tackle this issue by way of conjunctive use of surface and sub-surface water in canal command areas.

During drilling operations, in areas underlain by sandstones and quartzites of Kaladagi formation which is highly fractured in nature and especially in areas where Deccan traps are underlain by such a formation, caving has been

observed. Such areas are located in Ramdurg, Gokak and Saundatti taluks.

In areas where long-term trend of water level indicates depletion of water levels, drilling of deeper boreholes to tap deeper aquifers may not be the practical solution for irrigation. As any withdrawal from the aquifer is limited to its recharge, unless of course the recharge area of the deeper aquifer is situated elsewhere in a more favourable location than that of the shallow aquifer. It is therefore suggested, that areas where long-term trend of water level indicates depletion, drilling deeper wells is not in the interest of the public in general in the long run.

3.9.3.3 Water conservation and Artificial Recharge

Indiscriminate withdrawal of groundwater by means of different abstraction structures has resulted in the decline of ground water levels. Most part of the rain leaves the area as surface run-off causing floods and soil erosion, thus by constructing suitable structures, percolation into ground to recharge ground water can be enhanced.

Steps have been taken by the state government in this direction by constructing check dams, Mini percolation tanks, farm ponds, Nallah bunds and vented dams. The capacity of these structures varies from 1,000 to 2,000 cubic metres for check dams, mini percolation dams and vented dams, while it varies between 300 to 400 cubic metres for farm ponds and 6,000 to 7,000 cubic metres for Nallah bunding.

The study of the nature of geological formations, soil cover, slope of the land, depth of weathering, depth to water level and availability of land and water source the type of artificial structures should differ from place to place. Except for a small area in the western part of Khanapur taluk, most of the area in the district is plain i.e. having slopes less than 20% and therefore, construction of percolation tanks, check dams, farm ponds, Nallah bunds etc. as done by the state government would have been more beneficial for recharging groundwater.

Deccan traps occupy major part of the district consisting of layered formations of basalts and the black cotton soils derived from these formations which occupy most of the valleys, have poor to medium infiltration characteristics. Therefore, any water spreading or ponding methodology will not be so successful in such areas to recharge groundwater, until and unless it is coupled with point recharge structures that directly recharge the aquifer systems. Existing bore wells / dug wells especially the abandoned ones and recharge pits can also be used as point recharge structures. Elsewhere, especially in areas of other formations and soil cover existing techniques can continue to be employed. Moderate to high sloping, undulating terrain comprising the western parts of Khanapur taluk is suitable for artificial recharge structures such as contour bunds and contour trenches.

3.11 Water Environment

The development of any region is dependent on the availability of sufficient water resources, as developmental activities require water for construction, domestic and other purposes. The water resources in the study area broadly fall into following categories:

- Surface Water resources: Rivers / Ponds & Lakes / Canals / Dam Reservoirs.
- Ground Water resources: Dug Wells / Bore wells / Hand pumps.

The surface and ground water quality of the project area may get affected due to various factors like sedimentation & deposition of natural organic material, nutrients, bacteria & toxic substances, etc. These contaminants can contribute to water by either point or non-point sources. Point sources contribute contaminants from a discrete site, such as the outflow from a pipe, ditch, well, leakages in storage lagoons, storage of solid waste, etc. These sources can be controlled by treatment at or before the point of discharge. Non-point sources, on the other hand include the atmosphere, agricultural areas, golf courses, residential developments, roads, parking lots, and contributions from groundwater along lengthy reaches of streams.

3.11.1. Methodology

Water environment consists of water availability in the form of surface and ground water resources, its quality and use (both present and intended). Study of the water environment is essential in preparation of EIA for identification of critical issues including planning the mitigation measures with a view to have optimum use of the water resources. Assessment of baseline data of the Water environment (both surface- and ground-water) in a study area includes:

- Identification of surface water sources
- Identification of ground water sources
- Collection of water samples
- Analyzing water samples for physico-chemical and biological parameters

In this context, 8 groundwater samples and 1 surface water sample were collected from the study area for analysis of existing water quality in the area. The criteria for selection of sites for water sampling were based on the following rationale:

- To characterize the groundwater in the study area in terms of location, behavior, and quality.
- To identify potential effects of road construction and operation activities on groundwater regime of the area and any potential effects of groundwater quality on road construction and integrity.
- To identify measures to avoid, mitigate and manage any potential effects including any relevant design features of the road or techniques for construction.

3.11.2. Monitoring Stations for Water Quality Assessment

Sampling was carried out in the months of December 2020 to February 2021. During the study period, the very few surface water bodies were found within the project study area i.e. 10 km radial distance around the Project site. Since the ground water is used without treatment by a large portion of population, the quality of ground water was of great concern.

The details of sampling stations for Surface water samples and Groundwater samples are shown in Table 3-9 and Table 3-20, respectively. Sampling locations for surface water samples and groundwater samples are depicted in Figure 3- and Figure 3- respectively. Some photographs taken during water sampling in the study area are shown below as Figure 3-.pH: pH of the Canal downstream and upstream was found to be 7.71 and 8.01 which falls under all the classification of IS 2296-1982 for inland surface water.

- DO: Dissolved Oxygen levels of canal upstream and downstream were 3.80mg/lit and 4.20mg/lit.

Canal upstream & downstream water falls under classification B.

- BOD: BOD of canal upstream and downstream were 21.0 mg / lit & 23.0 mg/lit resp. falls under classification D.

- Total Coliform: Total Coliforms were found to be 30.0 MPN/100ml and 40.0 MPN/100ml in the canal upstream and downstream water. As per IS 2296-1982 for inland surface water, the water falls under the classification of A.

Looking at the results it can be stated that both the samples fall under mainly under Classification B of the inland surface water standards which mean it can be used as organized outdoor bathing purpose. Both the samples has less Dissolved Oxygen level to be used for drinking purpose. The water can also be used for Propagation of Wild life and Fisheries and Irrigation, Industrial Cooling, Controlled Waste disposal purpose.

Ground Water Quality

- pH of all samples was found to be in the range of 7.22 – 7.64

- Total dissolved solids at all sampling location are found in the range of 398- 704 mg/l.

- Total Hardness ranges from 121.3 – 353.78mg/l.

- Total alkalinity is in the range of 105.53 – 271.35mg/l.

- Heavy metals are not detected in all the samples.

- Thus, as per the above classification it can be concluded that the water id fit for drinking purpose.3.12 Ecology and Biodiversity

3.12.1. Introduction

This Chapter covers the terrestrial and aquatic ecological status of the area. The floral and faunal studies were conducted in and around project site i.e. 10 km study area.

Ecological studies helps in evaluation of impacts viz. deforestation/ tree cutting and shrinkage of animal habitat, impact on flora and fauna (terrestrial and aquatic) due to the interventions of the proposed project. This involves identification of rare and endangered species, endemic species and migratory path/ route of animals and status on breeding and nesting.

The sites for terrestrial and aquatic ecology sampling were identified during the reconnaissance survey and sampling was carried out thereafter. The detailed sampling was undertaken for assessing the baseline status of terrestrial and aquatic ecology.

3.12.2. Vegetation Studies

To obtain the baseline information of the vegetation, detailed phyto-sociological studies were undertaken covering sampling stations spread across study area.

Sampling Period: January 2021

Terrestrial Ecology – Phyto-sociological studies

Methods: For the vegetation study, stratified quadrat sampling method is used across the study area. The vegetation sampling was carried out at 10 different locations. Each location 4 quadrat of size 10 × 10 m was taken. The qualitative and quantitative information such as species richness and diversity, abundance and density and diversity indices were obtained from the transect method, carried out at locations mentioned in the below Table 3-23. The detailed analyses of terrestrial ecological sampling data are given below, and the results of phyto-sociological studies conducted is given as Table 3-:

The plant diversity in study area is moderate with 17 species. *Acacia nilotica*, *Cassia auriculata*, *Prosopis juliflora*, *Tectona grandis* in the frequency class E show uniform distribution. Species like *Azadirachta indica*, *Prosopis cineraria* in the frequency class D and *Butea sp*, *Dalbergia sissoo*, *Ficus bengalensis* in the frequency class C also show moderately uniform distribution in the region. *Ailanthus excelsa* in the frequency class A show a scattered distribution. This is a lofty deciduous tree found generally around villages and broken grounds but is seldom found in forests. It is able to adapt itself to a variety of soils from loamy to sandy soils. It prefers well- drained soil and avoids clayey and waterlogged soils. This plant grows well in semi-arid and semi- moist regions and has been found suitable for planting in dry areas with annual rainfall of about 400 mm. It is a relatively salt-tolerant species. *A. excelsa* is grown as a shade and avenue tree throughout most of the hotter parts of India. The trees serve as shelterbelts along borders of fields. *Acacia nilotica* and *Azadirachta indica* are often observed along the borders of agricultural fields. *Azadirachta indica* shows its presence widely in the project area. This species is common in the villages of the command area. A tall much

branched shrub like *Cassia auriculata* occurs in the region in the abundant class E. It is very common in the dry regions. The bark is a most valuable tanning material and the seeds are used medicinally. *Tamarindus indica* is observed throughout the tropical region. It is fairly common in the command area as well. It is a large tree cultivated or self-sown throughout the region. The tree is of great value with almost all its parts being useful. *Zizyphus jujuba* occurs as a small tree or a large shrub. It is extensively cultivated in the region for its edible fruit and for its timber. *Cocos nucifera* is found in tropical shore-lines. Coconut is one of the ten most useful trees in the world is being cultivated by farmers & houses providing food for millions of people, especially in the tropics. *Dalbergia sissoo*, which occurs fairly uniformly in the command area, is typical representative of water scarce region. *Prosopis juliflora* is an evergreen tree with a large crown and an open canopy, growing to a height of 5-10

m. It occurs naturally in dry areas. *Tectona grandis* or sagon is a large deciduous tree well known for its high-grade timber. *Ficus bengalensis* is a very large tree and is widely planted often near temples and shrines. It is universally planted but not wild in the region. Normally, the Shannon index ranges in between 1.5 to 3.5 and rarely goes to 4.5. On the other hand Simpson's Index ranges from 0 to 1 wherein values near 0 indicates fewer species and higher abundance while values closer to 1 indicates many species with low abundances.

From Table 3-, it is concluded that the Simpson Index is close to value 1. It indicates that few species & high abundance of species.

3.12.3. Floral Diversity

Table 3.22 shows list of vegetation diversity observed during the study period in 10 km radial distance around the project site, while Table 3.26 shows list of cultivated species in the 10 km Study Area around the project site.

3.12.4. Faunal Studies

Faunal studies were restricted to major groups such as, birds and mammals fauna. For preparation of the checklist of mammals and birds of the project area, direct sightings during various baseline studies, interviews with local communities regarding presence or absence of species and forest department records & other relevant literature studies were taken into consideration. The areas reported for the presence of the species were visited during the day as well as night.

Conclusion

Floral ecology: As per the ecological studies conducted it can be seen that the study area shows extreme species diversity. Total 44 tree species recorded & no endangered species of flora is reported in the study area. There found total 13 different cultivated species in the study area. No vulnerable and RET species found in the study area.

Trees are observed only along the borders of the agricultural areas. The vegetation is predominantly dry deciduous scrub, Tall trees have very sparse distribution and found either planted, present along the borders of agricultural land or roadside.

Faunal ecology:

Animals, which are found within the project area and categorized under schedule I to Schedule IV of Wild Life Protection Act 1972 & subsequent amendment respectively are strictly protected and there is a complete ban for their exploitation for any purpose. Care should be taken not to disturb their habitats. In addition, most of them have wide habitat ranges, and therefore the impacts envisaged would be minimal. From the faunal study, it was observed that 8 mammal species were observed in the study area namely Indian Palm Squirrel, Northern Palm Squirrel, Little Indian Field Mouse, House Mouse, Indian Hare, Indian Flying Fox, Grey Mongoose and Wild Boar.

There were 27 different species of birds observed in the study area which are of Schedule IV and one species of V (Least Concern).

There was no National Park, Wildlife Sanctuary, Protected Forest located within 10km radius from the project site

The majority of bird species found would be least impacted because their habitat requirements are too general and will be met easily from the adjoining area.

3.13 Socio Economic Environment

In order to study the socio-economic aspects of the communities living in and around proposed project, the required data has been collected from the publications of Census Department, (2011 Census) Government of India.

The growth of any economy is dependent on various factors which include availability of natural resources, presence of feasible climatic conditions, skilled man-power, infrastructural support and a steady orientation and research towards growth and development. A vast range of developmental projects have been carried out in the country. Their sole purpose has been improving the living conditions of the citizens.

All developmental activities are primarily centered on human development. However, when a country needs to grow in terms of its industrial and technological standing, infrastructural development is necessary. Infrastructure ranges from providing resources to employing sets of skilled manpower for obtaining the desired results. All these elements when balanced at an international level bring about global development.

At a local level when such activities are to be scoped socio-economic surveys play a key role. They not only emphasize the individual standing of a community but also delineate the possible socio- economic outcomes of any project. They include all the elements; from the conditions of the people living in that area to their working status. When developmental activities are about to occur in any area the socio-economic standing of the locality comes to the

forefront.

Demographics of Belgaum District

As per census 2011, Belgaum had a population of 47,79,661 of which male and female were 24,23,063 and 23,56,598 respectively. In 2001 census, Belgaum had a population of 42,14,505 of which males were 21,50,090 and remaining 20,64,415 were females. Its population growth rate over the decade 2001-2011 was 13.41%. Belgaum has a sex ratio of 973 females for every 1000 males, and a literacy rate of 73.48%.

Kannada is the official and the most spoken language in the district. Nearly 83% of the population speaks Kannada as the mother tongue. Native speakers of Deccani Urdu, Hindi and Marathi languages are also present in significant numbers. Observations

There are 16 villages within the study area.

- As per 2011 Census, total population of the study area is 48216 out of which male population is 24965 and female population is 23251.

- Total number of households is 9334 in the study area of which Anantapur village has highest number of households i.e. 1655.

- Total SC population is 7240 and ST population is 1640.

- According to census 2011, in the study area, overall literate population is 28343 (58.78%).

- According to 2011 Census, Total work force is 29458.

Cultural and aesthetic attributes: Byalli Basaveshwara temple is located at a distance of 10 km from the project site. Villagers celebrate Dussehra, Diwali Festival, and Eid etc. Proposed project will not disturb any cultural and aesthetic environment in study area.

Infrastructure resource base: The infrastructure resource base in the study area such as education, medical facility, water supply, post and telegraph, transportation and communication facility and power supply etc. are available in the area.

Education: Pathardi has public and private schools and colleges for higher secondary education.

Drinking Water: The water supply in the region is mostly through wells and hand pumps. For drinking purpose people are using only ground water supply, but very few hand pumps are available for drinking water.

Communication and Transportation: Transportation is to the satisfactory level in the villages. Bus service is available in almost all villages. The road condition is good and also properly maintained. Most of the villages in the study area have the communication facility i.e. post office. Private telephone connections in most of the villages.

Power Supply: Almost all villages are electrified in the region and electricity is available for domestic purpose in all the villages while power supply used for agricultural purpose is rare.

Medical/Primary Health Care: Medical facilities in terms of, primary health centre and primary health sub centres are adding medical facility in the villages. Primary Health Centre in the study area is available in the villages & primary health sub centres are also available in most of the village. Community Health worker & doctors visit villages periodically & provide health facilities to the people. Vaccination & health camps are also organized by PHC to aware the people about family planning, hygiene, & health care.

Conclusion

The industry is in the rural region and comparatively backward. Agro Industrial development will help economic upliftment of the people. Proposed project has substantial socio-economic and environmental benefits at the local level. Proposed industry will create new job opportunities for the locals during both construction and operation phase. Locals will develop ancillary business related to the industry in the vicinity of the project which will help in the economic upliftment of the area.

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The incineration boiler & turbine will supply steam & power to the proposed distillery plant & auxiliaries of the co-gen power plant, during the operating ...

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India is one of the largest producers of sugarcane as well as sugar in the world. The sugar cane is a cash crop for farmers. There are about 564 installed sugar factories in India. Most of the sugar industries are located in rural areas providing employment to rural masses.

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Maharashtra are the backbone of rural economy. These factories have contributed for the development of economy as well as infrastructure in rural areas, generated ample of employment opportunity to local people. The project proponent is one of a private sugar factory from the region of Maharashtra. The Maharashtra are the backbone of rural economy. These factories have contributed for the development of economy as well as infrastructure in rural areas, generated ample of employment opportunity to local people. The project proponent is one of a private sugar factory from the region of Maharashtra. The

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(h). "industrial activity" means- i. an operation or process carried out in an industrial installation referred to in Schedule 4 involving or.

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petrochemical route. With latest technological development & taking into account the increasing cost of petrochemical raw material, it is now possible to produce Ethylene oxide, Mono-ethylene glycol etc. starting from ethanol.

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kg of alcohol. The specific gravity of alcohol is 0.7934, therefore, 511.1 kg of alcohol is equivalent to 511.1 / 0.7934 = 644.19 liters of alcohol.

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Jun 24, 2020 — and there is a complete ban for their exploitation for any purpose. Care should be taken not to disturb their habitats.

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Chemically this transformation for sucrose to alcohol can be approximated by the equation. During fermentation other by products like glycerin, ...Chemically this transformation for sucrose to alcohol can be approximated by the equation: 1) C₁₂H₂₂O₁₁. + H₂O. Invertase. 2 C₆H₁₂O₆. (Cane Sugar) (Water).

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Thus, one MT of sugar will give only $644 \times 0.945 = 608.6$ liters of alcohol, under ideal condition theoretically. Normally only 80 to 82% efficiencies are ...

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The continuous fermentation process involves addition of fresh nutrients medium either continuously or intermittent withdrawal of portion of nutrient for recovery of fermentation products.

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The CO₂, which is liberated, is scrubbed in water, with the help of CO₂ Scrubber. This CO₂ contains ethanol, which is recovered by collecting CO₂ Scrubber water into Sludge Trough where sludge is collected. The traces of ethanol present in diluted sludge are separated at the supernatant, which is collected into buffer tank.

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The regeneration is accomplished by doing two things. First, a vacuum is applied to the bed undergoing regeneration. Second, a portion of the anhydrous ethanol vapor stream is directed down through the bed. This combination causes water to desorb from the molecular sieve beads & transfer into the ethanol vapor stream.

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This is to prevent condensation of liquids onto the molecular sieve bed, which would decrease their adsorption efficiency. The superheated ethanol vapors are directed to the Mol Sieve Units for dehydration. The vapor passes up through one bed of molecular sieve beads at a pressure. Incoming water is adsorbed on the molecular sieve bed.

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An even thin film enters the heating tubes via a distribution device in the head of the evaporator, flows downward at boiling temperature, and is partially ...

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Falling film evaporators are highly responsive to alterations of parameters such as energy supply, vacuum, feed rate, concentrations, etc. When well controlled, they can produce a very consistent concentrated product.

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it will be equipped with a well designed automatic control system therefore it can produce a very consistent concentrated product. "K-Super" Standalone ...

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The geomorphology of the district is characterised by vast stretches of undulated plains interspersed with sporadic ranges or isolated clusters of low ranges of ...

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the plain region. The Athani taluk, Belagavi district falls under Krishna River basin. The important rivers of the district are Krishna and its tributaries. The drainage network is influenced by South West monsoon (Fig.-3). 1.6 Soil Major part of the taluk is covered by mixed sandy soil and followed by black soil. The mixed

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1.1 Aquifer management study area. Aquifer mapping studies was carried out in Athani taluk, Athani district of Karnataka, covering an.

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Then depending on the capacity of the Industries, the number of trucks that will be added to the present scenario will be compared to the carrying capacity. To know the existing road will sustain or not after the commission of the project. 6.6.1 INDIAN ROAD CONGRESS (IRC) GUIDELINES.

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The study of the nature of geological formations, soil cover, slope of the land, depth of weathering, depth to water level and availability of land and water source the type of artificial structures should differ from place to place.

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Total normal rainy days vary from 90 in Khanapur to 37 in Athani. Eastern and northeastern parts of the district are prone to drought of mild nature. The average annual rainfall during the period 1971 to 2016 recorded in the district is 769.1 mm. The standard deviation and Coefficient variation of rainfall

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Suggestions of mitigation measures of Noise and to reduce noise of sources exceeding the allowable limits of. SPL. Monitoring methodology. Env. Component.

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Probable impacts of noise on sensitive receptors. ... Receiver: The impact is higher if the receiver is considered to be sensitive w.r.t the NAAQ. Standards ...

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through different layers. In many parts of Athani taluka, central parts of Chikkodi and Raibag taluka, the inter-trappean beds are exposed in the form of reddish, deep brownish soil, often mixed with the amygdaloids, jaspers, zeolites etc. The formation being porous, the seepage and evapotation are on higher side.

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The wells and bore wells in this formation show a fluctuation of 15-25 m. Almost all stone crushers in the district are in trap formation only. Laterite of this district is an altered product of Deccan trap. In a cross section, one can observe laterite at top followed by leached out alumina clay, grading down in to

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They are dark greyish-brown to very dark greyish-brown with clayey texture. These are derived from the weathered products of basalts and limestone and are darker in valleys than in high lands. Their texture varies from loam to clay, with low to moderate infiltration characteristics.

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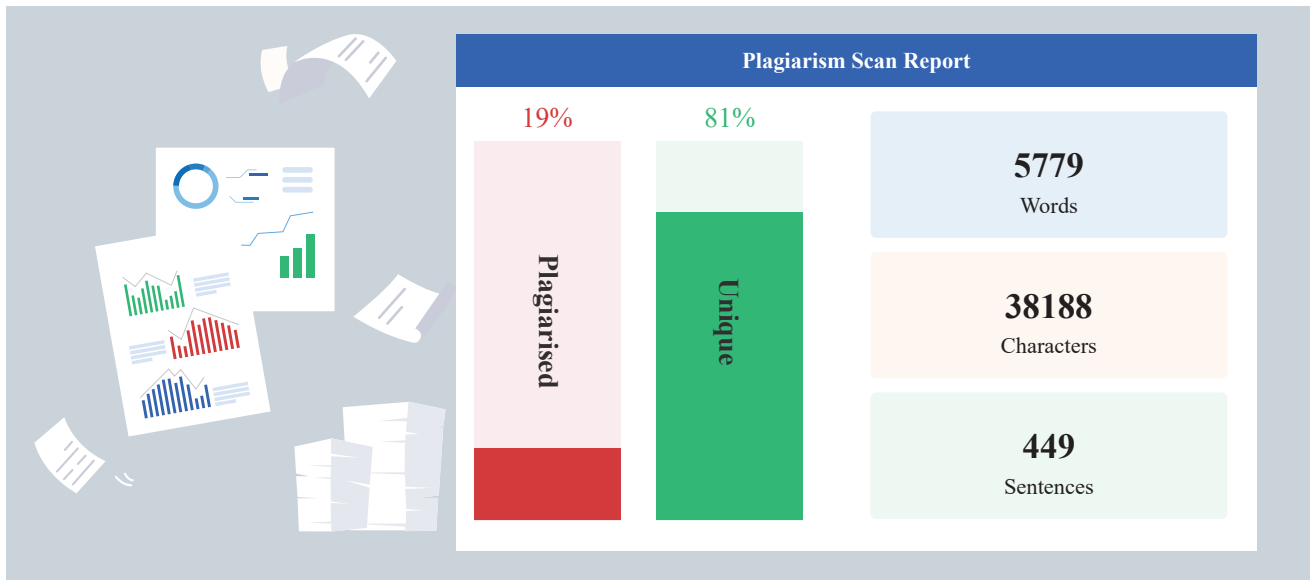
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Given Content

4.1 Identification of the Impact

On basis of this environmental situation and baseline data, an exercise has been done to spot and evaluate the impact on the environment of the study area due to the proposed project.

The proposed project may influence the environment of the world in two phases: Phase I: During the development period, the impact could also be temporary or short term Phase II: During the Operation Phase which can have future effects.

Phase I: During construction

The construction phase of the project is predicted to last for about one year. Hence, all construction impacts on the environment are often considered short term as compared to the operational impacts. During construction stage, excavation, material storage and movement, vehicular movement, mixing operation etc. will generate fugitive dust pollution and vehicular emissions at the project site. However, by taking appropriate measures as described in EMP, such impacts are going to be minimized.

The following activities among others are likely to contribute towards impacts on the environment during construction phase:

- Site preparation and development
- Civil construction work
- Vehicular movement
- Loading and unloading civil items and plant machineries
- On site storage of civil items & plant machineries.
- Erection of plant and civil structures
- Maintenance of construction machinery
- Disposal of solid wastes
- Accommodation for construction workers.

The impacts are likely to primarily affect land use, demography and socio economics, soil and onsite noise. It could also cause minor impacts on air and water quality and ecology.

The detailed impacts & mitigation measures are discussed within the following sections.

Phase II: During Operation

The important activities contributing to environmental impacts are as follows:

- Fuel bagasse, spent wash & other staple consumption
- Handling of sugarcane juice/Molasses (to be used as raw material)
- Storage and transportation of staple and Alcohol• Fermentation and distillation process
- Solid waste like ash, yeast sludge generation (Solid and unsafe waste): handling, storage and disposal
- Air emission through stack and material handling, transport and storage its control
- Spent wash generation and its disposalProject location Impacts are anticipated as disruption of Surface and Groundwater, rehabilitation, land use, ecological sensitive area other sensitive receptor (highway, airport, habitation,

Archeological site),The construction phase of the project is predicted to last for about one year. During construction stage, activities like excavation, material storage and movement, vehicular movement, mixing operation etc. might be affected environmental components.

4.5.1.1 Details of mathematical modelling

Prediction of impacts on air environment has been administered by employing a mathematical model. within the present case, AERMOD dispersion model supported steady state Gaussian plume dispersion, designed for multiple point sources for brief term has been used for predicting the bottom level concentrations. The computations affect major pollutants like sulfur dioxide and Suspended particulate and Oxides of Nitrogen.

4.5.1.2 Meteorological input file to the Model

The hourly secondary data collected from IMD has been utilized in the mode. In absence of site specific mixing depths, mixing depths published in “Spatial Distribution of hourly Mixing Depths over Indian Region” by Mr. R.N. Gupta and recommended by CPCB are used.

4.5.1.3 Model input file

The pollution modelling administered represents the worst case and normal operating scenarios. The pollutants considered for modelling include suspended particulate, sulfur dioxide and oxides of nitrogen.

The details of the stack and emissions envisaged from the proposed plant are given in below Table 4.8

Waste water
The spent wash of a distillery process may be a significant issue by way of threat to the environment. Its volume from fed batch fermentation plant is as large as 6.3 Lit/Lit of Alcohol for a distillery of fifty KL/day capacity supported multi pressure distillation with evaporator system.

The spent wash evaporation technology may be a multiple effect evaporator system during which heat recovered from one effect is employed to concentrate spent wash in second effect evaporator with continuous recirculation of concentrated spent wash within the system until desired concentration is obtained.

Concentrated spent wash (64 CMD) are going to be dried in spent wash dryer. Dry powder of spent are going to be provided to farmers as manure, as powdered spent wash is rich in potash.

Condensate Polishing Unit (CPU)

Process Condensate from Multi Effect Evaporators and spent lees generated within the process offers a perfect opportunity for recycle after treatment within the distillery; where there are major water consuming activities, and which may effectively minimize the water intake. The treatment approach is depicted within the Process flow chart. cooling system blow down water shall be used for gardening which cannot treat in CPU because it is design for biological degradation.

CPU Capacity: 430 m³/day.

Spent wash from Distillery

After Distillation for production of rectified spirit, effluent called spent wash stripped off at rock bottom of Analyzer column. This spent wash is further treated in to the Multi effect Evaporator for concentration up to 45% w/w solids. After concentration of 45% w/w solids this effluent is fed to Dryer for further process. during this Dryer moisture is removed and that we get the ultimate concentration up to 93-95% w/w solids of spent wash. The evaporation vapours are called as Process Condensate is further treated within the Condensate Polishing Unit (CPU) and recycle back to process or Gardening purpose.

2) Spent Lees from Distillery – The effluent called Spent Lees, from bottom of the 2nd Distillation column is collected and treated in to the Condensate Polishing Unit (CPU along side the method Condensate. After treatment this water is recycled back to process or gardening purpose.

4.6 Impact Assessment Matrix

Impact matrix facilitates to spot components and phases of project activities for determination of likely impacts. Matrix identifies the interaction between project activities and environmental components employing a grid like table. Entries are made within the cell which highlights impact severity within the sort of symbols or numbers or descriptive comments.

Conclusion of impact matrix assessment
Proposed project won't have any significant negative impacts on the environment. In absence of pollution control equipment, project will have high negative impact. Appropriate Environmental Management Plan (EMP) nullifies all high potential adverse.

4.7 Conclusion

The anticipated/identified potential environmental impacts of proposed project are going to be mainly from solid waste disposal, effluent disposal, spring water exploitation, and flue gaseous emissions. However, an efficient mitigation measure reduces level of serious impact on the environment. Hence, proposed project is going to be safe as there won't be disposal of effluent on the land or into the water body. Moreover, all required control measures and required equipment shall be provided to mitigate the impacts.

5.1 Site Alternatives

Proposed project is going to be within existing factory premises at Village Balligeri, Tal. Athani, Dist. Balligeri, Dist. Belgaum, Karnataka. Location of the location has below advantages,

Availability of raw material/fuel

Proximity of molasses as a staple and cost-effective transportation.

Availability of water system

The availability of water from the source is capable meet the need of the proposed distillery. Source of water for

proposed distillery is that the factories own rainwater harvesting pond. Availability of infrastructural facility Industrial infrastructural facilities like roads, transport, security, water, power, administration etc. are available with existing factory. Community facilities like quarters, medical services, education and training facility etc. also are available at site.

Environmental features of site

No eco-sensitive areas like biosphere, mangrove, protected forest, national parks etc. or environmental sensitive locations like protected monuments, historical places are present within 10 km from the project site.

5.2 Assessment of latest & untested technology for the danger of technological failure

The proposed 50 KLPD capacity distillery / ethanol plant will employ fermentation, multi pressure distillation system, evaporation & slop fired incineration boiler-based cogeneration power station . The sugar plant will supply B-heavy molasses to the distillery plants & bagasse as support fuel for the incineration boiler. The incineration boiler & turbine will supply steam & power to the proposed distillery plant & auxiliaries of the co-gen power station , during the operating periods, internally. The incineration boiler-based co-gen power station will employ high & temperature configuration incineration boiler (42 Kg/cm² and 400 deg. C) with 20 TPH capacity & matching 2 MW Single extraction cum condensing Type TG set and DCS system , for efficient operation.

No new technology is going to be used for proposed distillery unit, as selected technology may be a proven technology within the field of molasses-based distillery.

5.3 Description of other Technologies

The technology selection is completed on the idea of following considerations

- Indigenous technology
- Least stress on resources
- Reduce, recycle and reuse of wastes
- Reduce the pollution from the industry
- No risk to human and property

Alcohol manufacturing is predicated on two main steps, Fermentation and Distillation. Different technologies available within the field fermentation and distillation are given below,

Different fermentation technologies

- High brix fermentation
- Multistage continuous fermentation
- Immobilized enzyme fermentation
- Continuous fermentation without yeast separators

The continuous fermentation proposed is that the latest and proven technology as compared to the old batch fermentation technology. it's many advantages like continuity of operation, higher efficiency and simple operation. Continuous fermentation also results into consistent performance over an extended period as compared to batch fermentation. To adopt continuous or fed- batch fermentation process is an appropriate step towards the updating technology of alcohol production for efficient performance. Volume of effluent discharged is a smaller amount than that of total effluent discharged in Conventional distillation process.

(Source: Information from client) Advantages of continuous fermentation

- Fermentation
 - Good simple operation and straightforward way as no daily cleaning / filling required
 - Consistency in plant operation and performance is extremely high
 - Less operating manpower required
 - The process is automated with less cost and great ease
 - Easy to regulate & trouble shoot
- Cultured Yeast Advantage
 - No fresh yeast dosage required. Yeast is present in its culture form and hence saving in cost of the yeast
 - Elimination of other yeast related problems like wild yeast and contamination along side the fresh yeast
 - Yeast culturing and activation also will ensure optimum yeast concentration within the Fermenters, even when there's some bacterial growth.
- Higher Alcohol Concentration in Wash
 - Less effluent volume and low cost of treatment
 - Reduced steam consumption in Distillation
 - Higher alcohol concentration ensures low bacterial activity in Fermenters
- Rugged Process supported culture Yeast Technology
 - Can handle varying quality staple
 - Easy to start out and stop, as and when required
 - Can lookout of fluctuations like temperature and other conditions
 - Good control and handling of bacterial contamination
 - Higher alcohol yield per ton of molasses

- Minimum and controlled air sparging is used for Fermenter:
- Low electricity consumption
- Maximum CO₂ recovery of up to 80 to 85 you look after the entire CO₂ production is feasible

Continuous fermentation

The main process steps in continuous fermentation are described below –

- Dilution - Preparation of molasses for fermentation

Molasses available from Indian sugar mills features a solid content varying between 76 and 90% while the entire sugar content varies between 45 and 55%.

The main dilution operation occurs during a diluter where the solid concentration is brought right down to 20-25° Brix. the majority of this diluted molasses is fed to the fermentation tank while a little quantity is further diluted to 10-15° Brix and used for preparation of the ultimate yeast inoculum. Propagation of yeast for the ultimate inoculation is completed in successive stages in volumes of 10, 100, 1000 and 10,000 litres where, in each stage, 10 parts of diluted molasses is inoculated with 1 a part of yeast culture

- Fermentation - Production of alcohol from fermentable sugars in molasses solution Fermentation within the fermentation tank continues for about 30 to 45 hours after the ultimate inoculum is added thereto . the essential reaction within the fermentation process is exothermic. Since the reaction is exothermic and proper growth of yeast requires a narrow temperature range, water is sprayed on the outer walls of the fermentation tank to take care of the temperature between 25°C and 32°C.

Fermented beer – the most product of this step is decanted and therefore the remaining sludge referred to as fermenter sludge is discharged from bottom of the fermenters. The sludge amounts to about 300 to 400 litres (l) per kilolitre (kL) of rectified spirit produced, and is one among the main contributors to the pollution load from distilleries.

- Distillation – Product recovery

The fermented beer from the fermenter vessel is preheated to about 90°C by heat exchange with the spent wash be due the analyzer column and is then fed into the degasifying section of the analyzer column. Low boiling content of the fermented beer like organic acids, esters and aldehydes along side some alcohol vapours are condensed within the aldehyde condensers. Purified wash from bottom of the degasifying section enters the highest of the analyzer column for steam stripping of alcohol which condenses at the highest of the column as 40% alcohol. The down coming discharge from this column is spent wash.

The 40% alcohol stream from the highest of the analyzer column is next fed to rock bottom of the rectification column where it's maintained at a temperature of about 95° to 100°C. Water and alcohol vapour condense at different levels during this column and rectified spirit of an equilibrium boiling composition (95%) is withdrawn. Of this rectified spirit, a neighborhood is fed back to the column. Spent lees, produced at this step are usually pumped back to the analyzer column. the quantity of spent lees is about 1-1.5 kL/kL of rectified spirit produced. Considering the aspect reuse of water recycling, cost of the technology and treatment efficiency, the industry has decided to adopt Multi effect evaporator followed slop fired boiler for the proposed expansion. Brief of both the system is given below,• Well established technology for concentration up to 40 % solids, which may end in substantial spent wash volume reduction.

- Integrated raw spent wash evaporation may result in reduction of ultimate volume.

Slop fired boiler

- Solids concentrate (55 to 60 %) or spent wash powder is fired during a specially designed boiler with or without subsidiary fuel. Steam generated runs a TG set to get electricity. Exhaust steam is employed in distillery and evaporation plant operations
- Overall system is meant to be self-sustaining in terms of steam and power balance after initial stabilization period.
- Potash rich ash as a by-product. Summary of adverse impacts of every alternative

Other fermentation technologies and atmospheric distillation technologies are energy consuming and effluent generating. Continuous fermentation and Multi-pressure distillation are the proven technology as compared to other old technologies.

5.5 Selection of other including justification

Technology selection is completed on the idea of efficient utilization of staple , water, electricity, fuel and considering the recycle and reuse of wastes generated from industry. Considering the benefits and technology feasibility, distillery are going to be operated through Continuous Fermentation & Mutli-Pressure Distillation. Spent wash generated during the method of distillation are going to be concentrated in multiple effective evaporators and can be incinerated in 20 TPH boiler. The proposed spent wash treatment option are going to be ready to achieve the aim of “zero discharge” of effluent.

6.1 Objective of Monitoring Plan

The basic objective of implementing a monitoring plan on a daily basis is as follows:

- Monitoring the effectiveness of mitigation measures proposed
- To know the pollution status within the plant and its vicinity.
- Generate data for corrective action in respect of pollution.
- Correlate the assembly operations with emission and control mechanism.

- Examine the performance of pollution system .
- Assess the environmental impacts.
- Remedial measures and environment management decide to reverse the impacts.

6.2 Environment Monitoring Plan

The post project monitoring plan are going to be as follows,

- During construction phase
- During operation phase

Environment Monitoring Plan during Construction Phase

The construction activities require clearing of vegetation, mobilization of construction material and equipment. The proposed activity envisages fixing of boilers, turbines and cooling towers, establishment of storage facilities.

Reporting and Documentation

All the required reports and documents are going to be prepared to suits statutory rules and regulations. The records of the monitor program along side the results of all the parameters being monitored are going to be maintained on regular basis. The environmental monitoring activities are going to be recorded and therefore the following documents are proposed to be maintained,

- Log sheets of operation and maintenance of pollution control facilities/ equipment like ETP/slope fired boiler operation and test results of inlet and outlet.
- Instruction manuals for operation and maintenance of pollution control facilities/ equipment like ETP also as for manual for monitoring of water, solid and gaseous parameter discharged from the project.
- Statutory records as per the environment related legislation.
- Monthly and annual report .
- Bi-annual compliance statement for Regional Office, MOEF&CC.
- Annual environmental audit statements and compliance to NOC/ Consent conditions to State Pollution Control Board/ Regional Office, MOEF&CC.

6.4 Formulation of Environment Management Cell (EMC)

The Environmental Management Cell shall be liable for the environmental management, monitoring and implementation activities of the proposed unit. EMC will perform various activity of environment under the supervision of the top of the plant. EMC cell shall be liable for ,

- Monitoring of efficiency of pollution control equipment's• Preparation of maintenance schedule of pollution control equipment and treatment plants and see that it's followed strictly.
- Monitoring activities within core (within factory premises) and buffer zone(3 km from factory premises) of proposed project as per monitoring schedule.
- Inspection and regular cleaning of setting tanks, system etc.
- Greenbelt development and maintenance
- Water and energy conservation measures
- Good housekeeping

Structure of EMC is mentioned in below –6.5 Effective Implementation of Environmental monitor program

The mitigation measures suggested in Chapter-4 i.e. Anticipated Environment & Mitigation measures are going to be implemented so on reduce the impact on the environment thanks to the operations of the proposed project.

7.1 Public Consultation

The project falls under Category “B”, Activity 5 (g) [All molasses-based distilleries ≤100 KLPD], of schedule-I of the EIA notification-2006 (as amended timely). As per the standard ToR issued by SEIAA, MOEF&CC dated 05/11/2020, public consultation is applicable to the proposed project.

The environmental public hearing for brand spanking new 50 KLPD Molasses/ Sugarcane juice based Distillery/Ethanol plant of M/s Shri Basaveshwara Sugars Limited, at Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka was conducted on Wednesday, 15th September, 2021, 11.00 a.m. at Project site, Belgaum. Details of the minutes of meeting of the general public hearing is given below in Table 7.17.

7.2 Risk Assessment

Disaster is synonymous with 'emergency' as defined by the Ministry of Environment and Forests & climate change (MoEF&CC). An emergency occurring within the proposed project is one which will affect several sections within it and/ or may cause serious injuries, loss of lives, extensive damage to environment or property or serious disruption outside the plant. it'll require the simplest use of internal resources and therefore the use of out of doors resources to handle it effectively. it's going to happen usually because the results of a malfunction of the traditional operating procedures. it's going to even be precipitated by the intervention of an outdoor force like a cyclone, flood, earthquake or deliberate acts of arson or sabotage.

A properly designed and operated plant will have a really low probability (to A level of acceptable risk) of accident occurrence. Subsequently, a properly designed and executed management plan can further reduce the probability of any accident turning into an on-site emergency and/or an off-site emergency.

The three main goals of risk assessment are

- Identify risks,
- Quantify the impact of the potential threats and
- Provide an economic balance between the impact of risk and therefore the cost of the safeguard

Salient Feature of Risk Mitigation

- Design, manufacture and construction of buildings, plant and machineries are going to be as per National and International Codes as applicable in specific cases and laid down by statutory authorities
 - Provision of adequate access ways for movement of kit and personnel are going to be made.
 - Minimum of two numbers of gates for escape during disaster are going to be provided
 - In the vicinity of main plant entrance, there'll be an emergency assembly point where plant personnel will assemble within the event of any disaster.
 - Adequate numbers of fireside Fighting equipment's & Fire extinguishers are going to be installed within the work places for emergency purpose and therefore the Supervisors / Workers are going to be trained to use the equipment's.
 - An ambulance are going to be provided within the factory premises.
 - A qualified Doctor and a compounder are going to be employed for getting to any emergency.
- 7.3 Risk Assessment Study (QRA)

The Risk assessment report is ready for the Sugar industry with the associated co- generation and distillery nit. The methodology used for the study is as per the recommendations suggested within the Technical EIA guidance manual for Sugar industries, and Distilleries prepared by the Ministry of Environment and forests, Government of India. There are various sorts of studies were administered for the proposed project. Following are the step- wise risk assessment is completed

- Hazard identification (HIRA)
- Hazop study
- Frequency and Consequence analysis
- Event tree development
- Impact Assessment modelling
- Social impact assessment
- Disaster management and mitigation measures.Objectives of HIRA study

The following are the target of the HIRA studies administered for the project

- Carryout a scientific , critical analysis of all potential hazards involving personnel, plant, services and operation methods.
- Identify the prevailing safeguards available to regulate the risks thanks to the hazards.
- Suggest additional control measures to scale back the danger to acceptable level.
- Prepare a Risk register which will help in continuously monitoring these risks, detect any changes and make sure the controls are effective.

IDENTIFICATION OF HAZARDS:

The methodology used is as per "Hazard Identification and Hazard Analysis Techniques of Hazard Identification and Risk Analysis – Code of Practice IS 15656: 2006". For Hazard Identification both comparative methods and for quantification fundamental methods like Check lists, Material Safety Data Sheets (MSDS), Ranking Indices, NFPA hazard rating of Health, Flammability and reactivity and HAZOP Study are considered.

INVENTORY ANALYSIS:

Applicability of "The Manufacture Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989" and amendments; formed under "The Environment Protection Act, 1986", checked for inventory and unsafe processes administered at site. Ethanol, Sulphur acid , orthophosphoric acid and Diesel are hazardous chemicals stored and handled at site.According to the rating of every risk, it's necessary to guage it consistent with the subsequent .

- Urgent situations (16 to 25) that need action immediately.
- High-risk situations (10 to 15) that need action within the short and medium-term.
- Medium-risk situations (5 to 9) that need action or further evaluation within an appropriate period.
- Low-risk situations (less than 5) which will require relatively little or no action.

Using above Hazard Risk Rating Matrix Events identified having potential for significant consequences and risk hazard rating 16 and above which represent Urgent situations that need action immediately are identified and recorded. the subsequent HAZOP worksheets gives only these credible events and brought from detailed HAZOP study report.7.4 Disaster Management Plan

This DMP has been designed supported the range, scales and effects of "Major Generic Hazards" described within the Risk Assessment. The DMP addresses the range of thermal and mechanical impacts of those major hazards in order that potential harm to people onsite and off-site, plant and environment are often reduced to a practicable minimum.

The scenarios of loss of containment are credible worst cases to which this DMP is linked.

Disaster Management Plan is an elaborate scheme of designing events and organizing the chain of command which can

enact swiftly to counter contingencies arising out of the accident whose cause are often catastrophic rupture of tank resulting in pool fire –among many others. the overall description of the emergency management plan is discussed below which is further bifurcated into the onsite emergency plan and off-site emergency plan.

The project is in its formative stage and detail engineering is yet to be done, therefore the elements of the DMP are supported concepts.

Capabilities of DMP

The emergency plan envisaged are going to be designed to intercept full range of hazards specific to power station like fire, explosion, major spill etc. especially, the DMP are going to be designed and conducted to mitigate those losses of containment situations, which have potentials to escalate into major perils.

Another measure of the DMP's capability are going to be to combat small and enormous fires thanks to ignition, of flammable materials either from storage or from process streams and evacuate people from the affected areas speedily to safe locations to stop irreversible injury.

Emergency medical aids to those that could be suffering from incident heat radiation flux, blast wave overpressures, and toxic exposure are going to be inherent within the basic capabilities.

The most important capability of this DMP are going to be the specified speed of response to intercept a developing emergency in blast in order that disasters like explosion, major fire etc. are never allowed to happen. The site is Major Accident Hazard installation thanks to the inventory of Ethyl Alcohol inventory and there's potential for serious off site consequences if the emergency isn't controlled in time.

The study reveals that the risks posed by the proposed site activities as estimated by MCLS are at reasonably acceptable level. However, it depends heavily upon the upkeep of the hardware, following strictly the management procedures and implementation of the above mentioned risk mitigation measures; neglect of either will cause loss of protection and therefore the rating will rise to the upper level as estimated by MCA scenario. Offsite Emergency Plan

The off-site emergency plan begins beyond the premises of the plant. The possible impact on the immediate vicinity of the plant when emergency condition arises from the proposed plant. The responsibilities of varied personnel and departments are as given below:-

Responsibilities of the Police

- Communicate the knowledge about the mishap to the opposite agencies.
- Provide support to the opposite agencies as needed .
- Traffic management by cordoning of the world .

- Arrange the evacuation of individuals .

A) Responsibilities of the hearth brigade

- Fighting fire and preventing the spread.
- Lugging the leaks of the chemicals, reducing the consequences of gases and fumes.
- Rescue and salvage operation.

B) Medical /Ambulance

- First aid to persons affected.
- Medical treatment.

C) Technical (Factory Inspectorate, Pollution Board, Technical experts from industry, research and training institution)

- Furnish all the technical information to emergency services as needed .
- Investigate the causes of disaster.
- Suggest the preventive measures for future action.

D) Rehabilitation (Local authorities and district administration)

- Provide emergency control centre within the area with facilities for guiding , coordinating emergency control activities.
- Arrange for rehabilitation of persons evacuated and arrange for food, medical, hygienic requirements.
- Arrange for transportation for evacuation from residential location when required.
- Maintain communication facilities and conditions with the assistance of the phonephone department.

E) Measures to Be Taken During the Emergency

- The plant authorities shall immediately send messages to the administration just in case the hazard is probably going to spread beyond the plant.
- The concerned cops along side civic officials shall make arrangements for evacuation of the people from the villages to the safer areas.
- The plant authorities shall extend the technical support in containing the damage.
- Most importantly, it's the responsibility of the officials of the plant that the people don't get panicky.
- After, all the hazard is completely curbed, people could also be brought back to their respective villages. Emergency Fire Fighting Equipment

The industry will provide firefighting facilities within the industry so as to tackle the emergency firefighting:

- Adequate number of fireside extinguishers as per the factory rules shall be provided.

- A storage sump exclusively for storing water for meeting emergency fire conditions are going to be given necessary piping and pumping facilities.
- Adequate number of safety showers and eye wash fountains within the plant as per the factory rules shall be provided.

Regular firefighting and safety training shall be imparted to the workers .

7.5 Conclusion

Project proponent will implement all preventive measures to tackle all sort of emergencies arising out of operation or malfunction of individual unit's. the specified resources for Onsite and Offsite emergency management plan are going to be properly planned and provided to implement the plan effectively. The factory shall give highest priority towards Health and safety of the workers and other people residing nearby areas Management shall conduct the training to the nearby villagers to appraise them about their role during emergency. All nearby people shall tend training on do's and don'ts during emergency situation.

Distillery Industry (Ethanol Plant) is related to potential hazards to the worker and environment. because the hazards involved during operation and production activities are going to be known to the management, all required mitigation measures shall be implemented in time to avoid the emergency situation from the arising. Unfortunately, if there's any emergency onsite or offsite, it'll be tackled effectively thanks to availability of required resources at the location . Similarly, all the priority staff and members of the Teams shall be trained appropriately to tackle the emergencies within the plant. By knowing the sort of emergency situation which will arise during operation of the plant, appropriate control measures are going to be implemented to scale back the gravity of the emergencies. Similarly, to avoid the emergency situation, all required mitigation measures are going to be implemented as recommended.

8.1 Proponent approach towards the Project

The present crushing capacity of Sri Basaveshwara Sugars Limited is 800 TCD. so as to require advantages of the present conducive policies from the Central Government for ethanol production, SBSL has proposed to put in 50 KLPD distillery / ethanol plant.

8.2 Project Benefits

Improvements in physical infrastructure

The industry is established within the rural region of the state. The establishment of industry will provide direct and indirect employment to quite 100 local rural persons. Major a part of these labors are going to be mainly from local villagers who are expected to interact themselves both in agriculture and project activities. this may enhance their income and cause overall economic process of the world .

It helps to sustain the event of this area including further development of physical infrastructural facilities.

The following physical infrastructure facilities will improve thanks to proposed project.

- Road transport facilities

The road connectivity will get improved due to the industry. This improved physical infrastructure are going to be another facility to the community for surface transport.

- Water supply

Efforts are going to be more focused on recycling of wastewater after adequate treatment. Thus, water extraction for process are going to be minimized.

Improvements in Social Infrastructure

- The industry is within the rural region. Creation of job opportunity and other commercial activity will improve the economy and attitude of the general public towards education and health. this might end in the creation of additional education and health care facilities in this rural area.

- The proposed project will change the pattern of demand of varied items of food and non- food products. it'll help to get sufficient income to local people.

- Living consonant is a crucial aspect of the society. this will happen as long as , all the components are comfortably placed. Persons engaged in their respective vocation and accruing job satisfaction results in this. this may become possible by this venture.

- Rural sector economy is usually growing slow due to lack of amenities and facilities. Proposed project helps to supply steady support of money-flow, such utilities can come thereto area and sustain.

- This improved physical infrastructure will increase purchasing power of the farmers. they're going to be ready to invest in modern agricultural practices. The sugar factory has already initiated several activities for the event of the region. a number of the prime activities are as follows.

- It is providing good quality seed (Cane) material and fertilizers to member farmers.
- It is providing training to the farmers
- It has established an academic facility through which academic also as technical education has been made available to the nearby students.

In short, many developmental activities happened thanks to the establishment of sugar factory. The sugar factory is additionally determined and dedicated for the economic and social development of the region and initiate and continues many social developmental activities within the region. Some prime benefits of the project are highlighted

below

• It will develop economy brings with literacy and healthy living. Ultimately educational and health level will increase, if there's confirm income source.

Employment Potential

The industry will generate 5 nos. of permanent employment whereas 35 nos. of temporary employment during construction stage and generate 30 nos. of permanent employment whereas 30 nos. of temporary employment during operation phase.

Advantages of distillery and cogeneration

- Readily available infrastructure, fuel, & water for renewable energy power generation project.
- Provides an initiative to sugar mill to concentrate more on conservation of energy & reduction of operating expense, thereby improving their profitability of operation.
- Saves the expenditure on safe storage and disposal of bagasse.
- Benefits of quick return on biomass power capital investment and generation of additional revenue.
- Entire integrated project is proposed to be found out supported the stand-alone commercial viability of every component of the project.
- Distillery is aimed to enhance the technical efficiency of the unit in terms of steam utilization and power consumption

8.3 Conclusion

This venture of the proponents will bring improvement within the physical infrastructure of the encompassing area. it'll recharge the groundwater by rain-harvesting, the road structure are going to be repaired, massive greening drive will improve the aesthetics, organic and nursery are going to be available to the people, and usually the land prices will go up. The venture also will improve the social infrastructure, by way of strengthening the domestic set-up of the village Gram- Panchayat. land tax and other facilities like security and safety are going to be a welcome feature. The project will have excellent multiplier effect and can become truly a win-win situation for all the stakeholders. Thus, the proposed project has substantial socio-economic and environmental benefits at the local, the State, the Regional and therefore the National levels.

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ENVIRONMENT IMPACT ASSESSMENT REPORT Baseline Study Period March to May 2018 Proposed manufacturing unit for production of food preservatives At Plot No E ...16 Proposed Synthetic Organic Manufacturing Plant at Additional Patalganga MIDC, plot no. E-127, Tal. Khalapur, Dist. Raigad, Maharashtra by SMT Organic ...

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The spent wash evaporation technology is a multiple effect evaporator system in which heat recovered from one effect is used to concentrate spent wash in second effect evaporator with continuous recirculation of concentrated spent wash within the system until desired concentration is obtained.

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Advantages in higher alcohol concentration in Fermented Wash; Less effluent volume and low cost of treatment. Reduced steam consumption in Distillation.

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https://www.researchgate.net/publication/276096900_Benchmarking_the_effectiveness_of_mitigation_measures_to_the_quality_of_environmental_impact_statements_lessons_and_insights_from_mines_along_the_Great_Dyke_of_Zimbabwe

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Sep 23, 2021 — Arrange for transportation for evacuation from residential location when required. • Maintain communication facilities and conditions with ...

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Suggest the preventive measures for future action. 7.8.5 Rehabilitation (Local authorities and district administration). > Provide emergency control center ...Sep 23, 2021 — Suggest the preventive measures for future action. Rehabilitation (Local authorities and district administration).

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Project proponent will implement all preventive measures to tackle all type of emergencies arising out of operation or malfunction of individual unit's.

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The Karmayogi Shankarraoji Patil Sahakari Sakhar Karkhana Limited (KSPSSKL), is located at Mahatma Phule Nagar, village Bijwadi Tal-Indapur, Dist-Pune.

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Analysis of proposal (Final Recommendations) a) Improvement in the social infrastructure: Some prime benefits of the project are highlighted below The sugar factory expansion will fulfill the pressing demand of farmers to crush all the available cane, so local farmer will get benefitted It will save the money indirectly for reduce in the transportation of cane to nearby other factory, and reduce the environmental consequences due to it Shareholders are likely to get good rates for the cane ...

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3. Category of the Project/Activity as per Schedule of EIA Notification,2006: (a)Major Project/Activity, 5(g) Distilleries.Details of Project: ; (a)Name of the project(s), Proposed 45 KLPD Molasses/sugarcane Juice based Distillery & 20.5 MW Cogeneration Power Plant ; (b)Name of the ...

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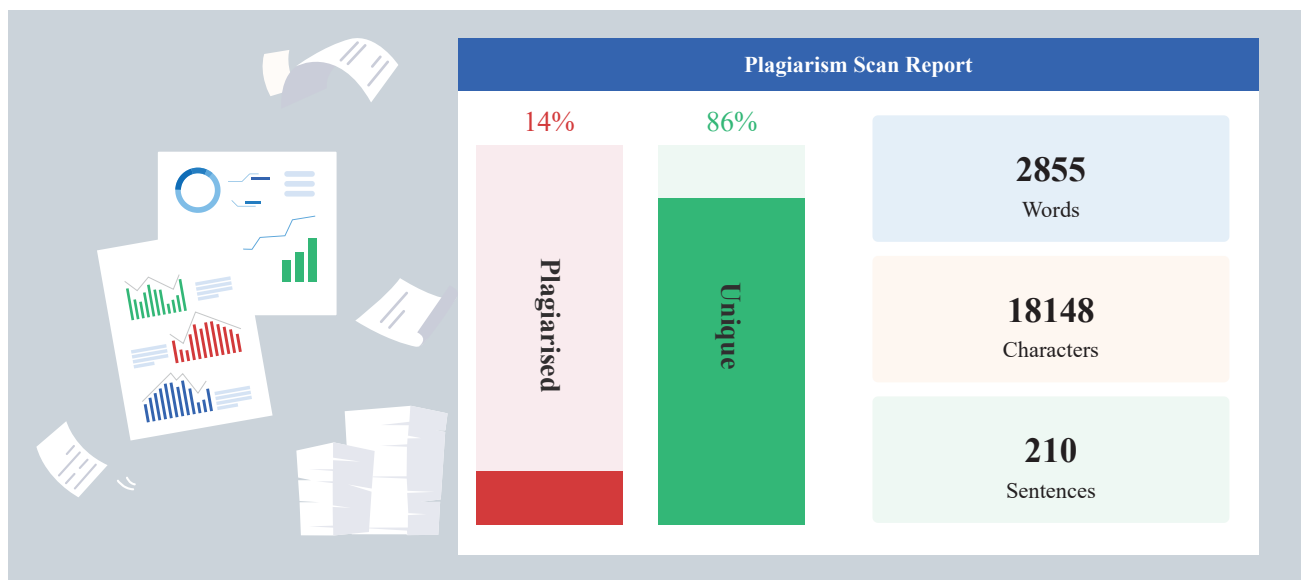
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Given Content

1 Environmental Benefits

- Factory shall follow safety rules & regulations, maintain good housekeeping and judiciously operate eco-friendly and zero discharge project to satisfy the prescribed norms and shall promote environment friendliness.
- Alcohol is documented as an industrial staple for manufacture of a spread of organic chemicals including pharmaceuticals, cosmetics, polymers etc.
- A large demand is anticipated for alcohol as a fuel. Alcohol may be a n eco-friendly product and is a substitute to the imported petroleum.
- Indeed, fuel ethanol production has been promoted for a spread of reasons as mentioned below,
 - It has less severe impact on the environment than conventional gasoline and fewer dangerous to health. Oxygenates are compounds like alcohols or ethers which contain oxygen in their molecular structure. Oxygenated fuels tend to offer a more complete combustion of its carbon-to-carbon dioxide (rather than monoxide) which results in reduced pollution from exhaust emissions.
 - It reduces the dependence on oil imports.
 - It helps to take care of rural economy.
- Factory proposes zero liquid discharge method for waste water treatment. Maximum waste water are going to be recycled back to the system.
- Factory proposes to put in Multiple Effect evaporator followed by Wet scrubber. Advantages are as follows
 - Production of steam and power generation.
 - Reduction in pollution as compared to coal-based boiler.
 - Reduction in pollution and achieve zero discharge in inland surface water.

The objective of Environment Management Plan (EMP) is to conserve resources, minimize waste generation, treatment of wastes and protect natural properties.

Commitment and Policy: of proposed project will strive to supply and implement the Environmental Management Plan that comes with all issues associated with air, land and water.

Planning: This includes identification of environmental impacts, legal requirements and setting environmental objectives.

Implementation: This comprises of resources available to the developers, accountability of contractors, training of operational staff related to environmental control facilities and documentation of measures to be taken

Measurement and Evaluation: This includes monitoring, corrective actions, and record keeping.

During study of the environmental attributes, it had been seen that each one the aspects would be considered to market the higher development just in case of future aspects of project also as environmental aspects.

The Factory management will take all the required steps to regulate and mitigate the environmental pollution within the designing stage of the project. While implementing the project factory will follow guidelines specified by CPCB under the company Environment responsibility (CER) for project. The EMP task will likely be administered by the Health, Safety and Environment (HSE) Department/ Environment department, who will have the authority where

necessary to “stop the job” if an environmentally detrimental activity is being conducted. The EMP operation/implementation are going to be the responsibility of the “HSE Officer (health, safety, and environment officers)”, who are going to be coordinating, arranging the gathering and reporting of the results of all emissions, ambient air quality, noise and water quality monitoring.

10.2 Environmental management during construction phase

The construction activities of the proposed unit will increase in dust concentrations and fugitive emission thanks to vehicles movement. the subsequent control measures are recommended to mitigate the probable adverse impacts.

10.4 Rain water harvesting and storm water management

Rain water harvesting is that the collection rainwater from the surfaces on which it falls.

Proponent has already implemented of rainwater harvesting program. The collected rain water is that the source of water for whole industry.

Storm water Drainage Line: supported the rainfall intensity of the proposed area, storm water system are going to be designed at the development stage of the project. Storm water system will contains well-designed network of open surface drains with rainwater harvesting pond. A separate system are going to be provided during which plant effluent won't be mixed.

Conduits: Pipes are wont to carry rain water from catchment to the recharge pond, passing through filter. A valve are going to be put at the top of wall for first flushing.

Filter: Sand Filter are wont to remove suspended pollutants from the rainwater.

Industry will collect rain water from roof top, Godowns, through Collection pipes. The out let pipes are to be directly connected to recharge pits. the primary storm water is to be let loose of the system. After considerable flushing of rain water with dust and waste during first storm, the roof top water are going to be let loose into the recharge structure.

Storm water management

Storm water system are going to be designed at the development stage of the project. Storm water system will contains well-designed network of open surface drains with rainwater harvesting pits. A separate system are going to be provided during which plant effluent won't be mixed.

Rainwater harvesting quantification

Average annual rainfall of Average Annual harvesting potential is 1882.6 m³/Annum. RWH structures are going to be provided to reap the rain water from roof TOP and plant area. The collected rain water are going to be utilized for plant uses to optimize the raw water requirement. The surface water run-off from the most plant area would be led to a sump for settling and therefore the over flow would be collected within the common water basin for further uses within the plant to optimize the raw water requirement of the plant. the surplus rain water could also be discharged to the closest surface water body through dedicated storm water drain for recharging the bottom water. Greenbelt are going to be developed along the periphery of the project area, along roads, around each separate unit, around cane yard and around ETP. Factory will develop greenbelt on 5.83 Ha. the subsequent characteristics are taken into consideration while selecting plant species.

- Fast growing
 - Thick canopy cover
 - Perennial and ever green
 - Large leaf area
 - Preferably Indigenous
 - Resistant to pollutants and will maintain ecological balance for soil and geo-hydrological conditions of the region.
 - Abundance of surfaces on bark and foliage through roughness of bark, epidermal outgrowth on petioles, abundance of auxiliary hairs, hairs or scales on laminar surfaces and guarded stomata (by wax, arches, rings, hairs, etc.)
- Around ~8800 trees are going to be planted within the premises. Greenbelt are going to be as developed as follows,
- Trees growing up to five m or more are going to be planted along the plant premises and along the road sides
 - 8-10 m width green belt right along the border
 - Tree plantation on each side of interior roads within the premise.
 - The spacing between the trees are going to be maintained slightly but the traditional spaces, in order that the trees will grow vertically and slightly increase the effective height of the green belt.
 - Since the trunks of the tall trees are generally barren of foliage, it'll be useful to possess shrubs ahead of the trees so on give coverage to the present portion.
 - Shrubs and trees are going to be planted in encircling rows round the project site.
 - The small trees (<10 m height) are going to be planted within the first two rows (towards plant side) of the green belt. The tall trees (>10 m height) are going to be planted within the outer three rows (away from plant side).
 - Trees should be planted along road sides, to arrest auto-exhaust and sound pollution .
- #### 10.6 Occupational Health and Safety (OHS)

All precautionary methods are going to be adopted by the corporate to scale back the danger of exposure of employees to occupational safety and health hazards. Pre & post medical check-ups are going to be done of all the workers .

Employees are going to be regularly examined and therefore the medical records are going to be maintained for every employee. Pulmonary function test and periodical medical check-up shall be done once in per annum . the subsequent tests shall be conducted for every worker.

- Lung Function Test
- Radiology – X-ray
- Pulmonary Function Test
- Audiometric Test
- General clinical examination with emphasis on systema respiratorium
- Pre-employment examinations
- Periodical medical examinations at the time of employment and after completion of employment

Following control measures are going to be taken for the workers and workers engaged in work:

- Personal protective equipment's are going to be provided to all or any concern staffs and workers.
- Every employ are going to be trained for specific working
- Awareness program for workers are going to be administered for likely adverse impact on their health thanks to working and use of precautionary measures.
- All safety signs are going to be placed at proper location
- First aid kits are going to be made available at every department
- Medical check-up at regular intervals for monitoring of health status of all workers
- Work permit system are going to be introduced to avoid un-authorized person's entry
- Review of impact of varied health measures undertaken after every two year.
- Fire hydrant system, fire extinguishers are going to be provided at specific locations
- All staff and workers are going to be trained to fight the emergency situation
- Good housekeeping also plays important role in avoiding the undesirable incidences. Therefore, good housekeeping practices are going to be employed.

Facilities like provision of excellent quality water, sanitation and white room for eating and resting shall be provided. it's evident from the project details that the danger or accidental spillage of chemicals may cause ill effects on the health of employees involved. in sight of the effect on the health of workers from various activities and exposure during the work, required mitigation / control measures shall be implemented to scale back the associated risk and hazards.10.8 Fire Fighting & Protection System

The firefighting system are going to be designed in conformity with the recommendations of the Tariff Advisory Committee (TAC) of Insurance Association of India. While designing the hearth protection systems for this power plant its extreme ambient conditions need special attention. Codes and Standards of National Fire Protection Association (NFPA) are going to be followed, as applicable. the various sorts of fire protection / detection system envisaged for the whole project are given below.

- Hydrant System for entire area of power station .
- High Velocity Water Spray System (HVWS) for Generator Transformer (GT), Unit Auxiliary transformer (UAT), Station Transformer (ST), and turbine lube oil canal pipe lines in main plant, Boiler burner front, diesel fuel tank of DG set, main lube oil tank, clean and dirty lube oil tanks. • Medium Velocity Water spray system – Cable gallery / Cable spreader room, bagasse conveyors, Transfer points and F.O. pump house and F.O. tanks.
- Foam system for heating oil tanks.
- Portable and mobile fire extinguishers for entire plant.
- Fire tenders (minimum 2 nos.).
- Inert facility for Central room , Control Equipment Room, Computer Room and UPS Room within the TG building.
- Fixed Foam System: this technique is provided for LDO and HFO storage tanks. The water for the froth system are going to be tapped from the Hydrant system.
- noble gas system: Inert gas system will automatically detect and suppress fire within a protected area. The system are going to be a complete flooding fire suppression system with automatic detection and/or manual release capability. Complete system design are going to be in accordance with NFPA. The noble gas system are going to be generally provided above false and below false ceiling of Central room , UPS Room, Control equipment room and Computer room.

Fire Detection and alarm

Fire Detection and alarm are going to be provided for all Central room , Control Equipment Room, battery rooms, all switchgear rooms / MCC rooms, Cable spreader room and Computer rooms located in Power block area and in other auxiliary buildings.

A microprocessor-based Fire Detection and alarm shall be provided for the whole plant area consisting of Intelligent Analog Addressable type detectors. The system will contains a central monitoring station and therefore the main Fire Alarm Panel (FAP) located in unit room and one fire alarm and instrument panel and repeater panel provided within the firehouse office

An industrial siren are going to be installed within the turbine generator building. The siren shall have an audible range of three km and produce a minimum sound level of 80 dB (A) above the other noise likely to persist for a period longer than 30 seconds. Additionally, all exit routes and hallways in each occupied building shall be given sounders and flash light to facilitate safe evacuation just in case of fireside within the area. All necessary instruction and warning plates are going to be displayed.

10.9 CER activities

Proponent is getting to implement the company Environment responsibilities (CER) activities for the nearby areas like infrastructure facility development, to form the supply of health and sanitation facilities considering the local people requirement and in consultation with district collector whenever needed. the corporate is getting to spend Rs. 43.0 lakhs, which is about 2.0% (Green field project >100 cr. investment) of additional capital investment project cost (21.12 Cr.) within a period of two years before commissioning of project. The time bound action plan for implementation of CSR activities is before commissioning of the project described in Table 5.3

- Lighting by LED bulb / solar street lamps.
- Drinking water system
- Tree plantation

Responsibilities of Environmental Management Cell

The EMC has the responsibility to supervise all the activities within the plant to make sure that those are being administered as per the quality procedure to avoid any type harm to the environment. The EMC also undertake periodical monitoring or survey of varied environmental parameters including monitoring and analysis of effluent, air, water and noise to make sure that these parameters are maintained within the prescribed limits. If any deviation observed, they're going to inform to initiate corrective action by the priority department or they're going to do themselves if required.

They also undertake the physical survey of the green belt to make sure required growth and survival rate of the plant. they're going to also inform the priority department for corrective action if any to possess proper growth of the plants.

Environmental monitoring: EMC will make sure that pollution is well below the prescribed limits or there's no much difference between this concentrations and baseline data. If wide difference is observed then they're going to got to initiate required corrective action either by optimizing the treatment process or by providing equipment or improving the performance of pollution controls equipment. just in case the results indicate parameters exceeding the prescribed limits, remedial actions are going to be taken through the concerned plant people. the particular operation and maintenance of pollution control equipment are going to be the responsibility of respective head or a plant responsible .

Legal and statutory compliance: EMC also will supervise the work of other department concerning the activities of preparation of environment statement report, environment audit, Water Cess return and consent application as per the need under various Rules and regulations. they're going to also guide the HODs of individual department to satisfy the statutory requirements under various acts and applicable rules. Following Rules shall be applicable to the facility:

- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1981
- Hazardous and Other Waste (Handling and Trans-boundary Movement) Rules, 2016
- The Environment Protection Act, 1986
- Explosive Act 1884 & the Explosive Rules, 2008
- E-Waste (Management) Rules, 2016

Documentation: The cell also will be liable for maintaining the records of knowledge , documents and knowledge in line with the legislative requirement and can regularly furnish an equivalent to the priority statutory authorities.

10.12 Post Clearance Monitoring Protocol

After grant of environmental clearance by the MOEF&CC, half yearly compliance reports are going to be submitted in hard and soft copies to the concerned regional MOEF&CC office on 1st Oct and 1st April of every civil year with reference to EC conditions. All such compliance reports submitted are going to be the general public documents. Copies of an equivalent are going to be made available to the stakeholder upon the request. Factory will need to submit all compliance to the regional MOEF&CC office.

11.1 Brief description of the project

Sri Basaveshwara Sugars Limited (Company) is incorporated as Ltd. on 11th of September, 2007 vides CIN No. U15421KA2007PLC041842 with the most object as "manufacturing of sugar and ethanol" at survey no. 362/1, 362/2 and 366/P1 of Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Sri Basaveshwara Sugars Limited proposes to line up new 50 KLPD Molasses / Sugar Cane Juice based Distillery (ENA/Ethanol) Plant with 800 TCD Sugar Plant at Balligeri Village, Anantpur Circle, Athani Taluka, District Belgaum, Karnataka. Factory has obtained Consent for Establish from KSPCB Bangalore vide CTE-325163, Dated 04.06.2021 for 800 TCD sugar and a couple of MW captive generation. Proposed 50 KLPD distilleries comes under EIA notification 2006 & its amendment thereof Project will get appraised under Cat A, at EAC Ind –II, New Delhi, MOEF&CC, as interstate boundary of Maharashtra and Karnataka is within 5.0 km from project site.

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Environmental, A large demand is anticipated for alcohol as a fuel. Alcohol is an eco-friendly product and is a substitute to the imported petroleum.

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https://www.mpcb.gov.in/sites/default/files/public_hearing/exe_summary/2021-05/ExecutivesummaryEnglishVrudheshwar14052021.pdf

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2016. 10. 8. · Measurement and Evaluation: This includes monitoring, corrective actions, and record keeping. 1.7.1 ENVIRONMENT MANAGEMENT DURING CONSTRUCTION 1.7.1.1 AIR ENVIRONMENT :- Air quality around the project will be adversely impacted during the construction stage. Various construction activities especially related to lose material likely to ...

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Jun 2, 2021 — B2. As per amendment made by the MOEF&CC vide notification dated 13.06.2019 in the EIA Notification dated 14th Sep, 2006,.Introduction. Indian Sugar Manufacturing Company Limited (ISMCL) is a Company limited by Shares (Public. Limited) in 2000 & initial cane crushing capacity ...

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Industrial Development f DRAFT EIA EMP Proposed Common Effluent Treatment Plant (CETP-5MLD) at Khasra No- 1244,1257,1263,3214/1265,3215/ 1265,1432,1433,1434 ...

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The Water (Prevention and Control of Pollution) Act, 1974

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Air (Prevention and Control of Pollution) Act, 1981

Air (Prevention and Control of Pollution) Act, 1981

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Jul 3, 2021 — Parameter. Unit. Qty mg/Lit. Water Input /Day kg. 9953.2. NA. Effluent /Day kg. 8816.711. NA. TDS /Day kg. 310.568. 35224.92. COD/Day.EB, SC & LU May 2017 to August 2020, Baseline. Survey & preparation of EIA EMP report. Study of flora and fauna in the 10 km.

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