



**NSL Sugars Limited**  
**UNIT-III Jay Mahesh**

Village Pawarwadi Tq. Majalgaon,  
Dist. Beed. (Maharashtra)  
Fax.: (02443) 202034  
Email: jmsil@nslsugars.com  
web: www.nslsugars.com

TO,  
THE DIRECTOR (INDUSTRY-2),  
MINISTRY OF ENVIRONMENT FOREST & CLIMATE CHANGE,  
INDIRA PARYAVARAN BHAVAN,  
JOR BAGH ROAD,  
NEW DELHI - 110 003

13<sup>th</sup> February, 2017

Sub:

Environmental Clearance for expansion sugar plant from 7000 TCD to 12000 TCD and 100 KLPD Molasses based distillery plant along with 3 MW co-gen power plant (in addition to the existing 30 MW co-gen power plant) in Pawarwadi Village, Majalgaon Taluk, Beed District, Maharashtra – *Submission of additional information* - Reg.

Ref:

1. Environmental Clearance issued by MOEF vide No. F. No. J-11011/1264/2007-IA II (I) dated 30-04-2009
2. TOR letter issued for expansion by the MOEF& CC vide No. J-11011/26/2015-IA II (I) dated 29-04-2015
3. Submitted Final EIA report online in MoEF&CC web portal vide Proposal No. IA/MH/IND2/26637/2015 dated 05-10-2016
4. Proposed considered in 16<sup>th</sup> EAC meeting for Industry -2 held on 08-12-2016

Respected sir,

We are very thankful to the Ministry for kindly considering our aforementioned proposal in the 16<sup>th</sup> EAC meeting (Industry-2) held on 8<sup>th</sup> December, 2016. Please find enclosed the pointwise clarifications to the observations mentioned in the Ministry website vide MoM of 16<sup>th</sup> EAC for your kind perusal.

S.NO.	OBSERVATION DISPLAYED IN THE MOM 16 <sup>TH</sup> EAC MEETING	CLARIFICATION
1	Explore the possibility of surface water availability	<p>As suggested by the Hon'ble Committee, we have initiated the process of obtaining approval for drawl of water from Majalgaon Dam situated at 14 Kms. from the plant. A copy of the acknowledgement is enclosed as <b>Annexure-1</b> for your kind perusal.</p> <p>We hereby assure your goodselves that we will use Dam water after obtaining the approval.</p>

**Corporate Office :** NSL Icon, 8-2-684/2/A, Road No.12, Banjara Hills, Hyderabad - 500 034, INDIA

**Ph.:** +91-40-30514444 **Fax:** +91-40-30514125

**Registered Office :** 60/1, 2nd Cross, Residence Road, Bangalore - 560 02. **Fax.** + 080 - 41232314



S.NO.	OBSERVATION DISPLAYED IN THE MOM 16 <sup>TH</sup> EAC MEETING	CLARIFICATION
2	Conduct occupational health analysis of workers through Government medical doctor/ occupational health certified doctor	As suggested by the hon'ble Committee, we have conducted occupational health of all the workers through Dr. S. B. Mundhe, Occupation Health Centre, Beed, approved by the Govt. Copies of the health reports of all the workers is enclosed as <b>Annexure - 2</b> for your kind reference.
3	Rework in order to reduce the water requirement	As suggested by the Hon'ble EAC, we have reduced the water requirement for the distillery to 920 KLD for the Distillery. The total water requirement after expansion will be 3020 KLD.
4	Consent order from State Pollution Control Board	Maharashtra Pollution Control Board (MPCB) has issued Consent to Operate (CTO) for existing plant which is valid upto 31-07-2017. A copy of the CTO is enclosed as <b>Annexure – 3</b> for your kind perusal.
5	Revised plant layout with proper greenbelt	Revised Plant Layout duly incorporating the peripheral greenbelt is enclosed as <b>Annexure -4</b> for your kind perusal.


We request your goodselves to kindly issue of Environmental Clearance for our proposed expansion project at the earliest.

Thanking you

Yours Sincerely

For **NSL SUGARS LIMITED (UNIT-III)**

(Formerly **JAY MAHESH SUGAR INDUSTRIES LIMITED**)

  
**S. RADHAKRISHNAN**  
**VICE PRESIDENT**



SUGARS  
Sustainable food, Fule & Power

Annexure -1

**NSL Sugars Limited**  
**Unit III Jay Mahesh**

Regd. Off. Pawarwadi  
Tq. Majalgaon Dist. Beed.  
Maharashtra, INDIA  
Off. (02443) 203590, 91  
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Tin No.: 27830948879 V/C  
CIN NO. U15429KA1999PLC026121

Ref:- NSLJM/Admin/ 150 /2017

To,  
The Executive Engineer,  
Majalgaon project division,  
Parli Vaijyanath, Dist. Beed,  
Maharashtra.

Date:- 03/02/2017

**Sub:- Application for water withdrawal permission from Majalgaon Dam –**  
**Regds.**

Respected Sir,

With reference to the above cited subject, It is submitted to your good self that, we require permission for withdrawing **3800 cum x 300 days (12 Hours Opeartion/day) i.e 11.4 lakhs Cum / annum**, water from Majalgaon dam to NSL sugars ltd, Unit – III, Jay Mahesh, Village Pawarwadi.

The factory is planning to go for a more reliable and permanent solution to the present water problem by constructing/existing storage reservoir with providing water supply pipe line from nearest source of Majalgaon dam (back water) on Sindafana river, which is at distance of 14 Km from factory. This stored water will be utilized for production purpose.

The total station survey of pipeline alignment is done from jack well located on left bank of back water of Majalgaon dam to NSL Sugar factory reservoir. The total lenth coming out to 13.92 Km (Ch-0 Km to 13.92 Km). Total station survey report is enclosed herewith for your kind reference.

Therefore requesting your good self to sanction us the permission to withdrawl the water from Majalgaon dam to NSL Sugar factory loacted in Vill. Pawarwadi.

Date :- 03/02/2017

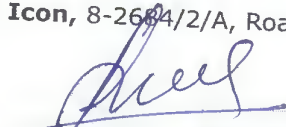
For NSL Sugars Ltd. Unit III, Jay Mahesh

  
Vice President

Number of copies submitted :- 03 Sets

AN  Group Company.

NSL Icon, 8-2684/2/A, Road No.12, Baner Hills, Hyderabad - 500 034, INDIA Ph: 91 -40 - 30514444

  
4/2/2017

कार्यालय  
सहायक कार्याकारी अभियंता  
जा.प्र.टप्पा-२, उप-विभाग क्रं १७  
केसापुरी बसाहत

**NSL SUGARS LTD. UNIT-III, JAY MAHESH  
VILLAGE - PAWARWAD,  
DIST. BEED (MAHARASHTRA)**

**WATER SUPPLY SHCME FROM  
MAJALGAON DAM TO SUGAR FACTORY**

**PRELIMINARY DESIGN REPORT & DRAWINGS**

Consultants

AMINBHAVI AND HEGDE  
Consultanting Engineers Pvt. Ltd.  
1<sup>st</sup> Floor, UCB Complex, Station Road  
DHARWAD- 580 001.  
Ph. (0836) 2747 308, Fax – 2796 241  
E-mail – [ahcepl.ah@gamil.com](mailto:ahcepl.ah@gamil.com)



## GENERAL REPORT

NSL Sugars Ltd. Unit-III, Jay Mahesh is located at Pawarwadi Village of Majalgaon Taluka in Beed District. It is combined sugar unit consisting of Sugar unit of capacity 7000 TCD, Ethanol of cap. 100 KLPD & Co-Generation unit of cap. 30 MW. (The Distillery project implementation activities are under way will complete soon).

The above activities need about 3800 Cum of water per day. The factory is facing shortage of water at present and requirement is met by borewell which will deplete during the summer.

Therefore, the factory plans to go for a more reliable and permanent solution to the present water problem by constructing a storage reservoir with providing water supply pipeline from Nearest source of Majalgaon dam (Back water) on Sindafana river, which is at distance of 14 Km from factory. There is ample of water available in Dam for whole of 12 months. The project envisages pumping of water through pipeline into the reservoir. Utilising this stored water for production purposes.

### Water requirement:-

**Total water requirement is 3800 Cum/day for 300 days (11.4 lakh cum/annum).** Discharge for pumping has been calculated; as the electricity may be supplied by the factory or by taking proper prior permission from MSEB, hence 12 hours pumping is considered by these hours of pumping discharge works out to 320 Cum/hour.

### Survey:-

The total station survey of pipeline alignment is done from Jackwell is located on Left bank of backwater of Majalgaon dam to Sugar factory reservoir. The total length coming out to 13.92 Km (Ch-0 Km to 13.92 Km)

### Components of scheme:-

Following are the components included in the scheme.

1. Approach Channel
2. RCC Jackwell & Pump house
3. Rising Main
4. Approach Embankment
5. Mechanical & Electrical works

The Approach channel is proposed at Jackwell. It is length 200 mtr (Ch- 50 to 150 mtr). The proposal Bed width of channel is 2.0 mtr. With side slope of 1:5:1. The side slope are protected by drystone pitching. The Bed slope towards Jackwell is made in 1:2000 to pass the required discharge



### Jack well & Pump house:-

The RCC Circular Jackwell & pump house is proposed to be Located at Ch- 150 mtr at GL- 494.50 because the part of excavation of approach channel can be utilized for approach embankment. It is in Circular in shape of 4.0 mtr diameter and 12 mtr deep from pump house floor level. The floor level of pump house kept at RL 500 which is above HFL of 499. The jackwell and pump house is RCC structure. For water intake the openings are made in steining wall with pipe and MS Gratings. The guide wall and baffle wall is proposed to guide the water to suction of pump. The pump house above the well shall also be of 4 mtr dia and 4.5 mtr height with RCC roof. The HOT crane of capacity 2 MT is proposed at pump house for the maintenance of pumps and motors. The pump house shall be provided with 2 Nos. (1 working + 1 standby) of vertical turbine pumps each having a discharge of 320 Cum/hour for 12 hours pumping (day time).

### Approach & Embankment:-

The earthen approach embankment is proposed to jackwell because, as present site is of BC soil RCC approach Bridge will be costlier than earthen approach Bridge. The Bridge length is 150 mtr (Ch- 150 to 300 mtr). The proposed top width of Bridge is 3 mtr. The top level embankment kept at RL 500 near jackwell and will reach RL 499 at end of approach for the length of 150 mtr. The side slopes of embankment proposed is 1:5:1 and are protected by drystone pitching.

### Rising main:-

The rising main design is made for various alternatives, however we propose MS pipe as it is of less maintenance and long run as compared to other pipes. The proposed rising main is of **270.1 mm dia MS pipe of 4.8 mm thick**. The length of the rising main is about **13800 mtr**. The above diameter has been arrived after detailed techno-economic analysis. Also detailed water hammer analysis has been carried out for the above pipe line and it is founded the pipe thickness is safe against such pressures. Necessary appurtenances such as line valves, air valves, scour valves, etc. Shall be provided along the rising main. At the bends and slopes suitable sized thrust blocks/anchor blocks shall be provided. At major CD works pipes are laid above the nallas. The longitudinal section of rising main shown in **Drawing**.





## Mechanical & Electrical works :

There are 2 Nos. (1 working + 1 standby) of Vertical Turbine pumps proposed each having a discharge of  $320\text{m}^3$  / hour for 20 hours pumping against total head of 110m.

The HT line to jackwell is taken either from factory. The switch yard for jackwell is proposed at side of jackwell & cable will be connected to Panel room at pump house from this location.

## Cost Estimate

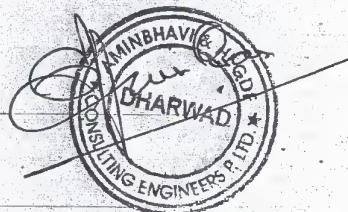
The Preliminary Estimate is prepared based on Techno economic analysis & present schedule of rates. The Summary of various alternatives are made & detailed as under.

Alt. No	Description	Pump Capacity (in HP)	Velocity in Pipe (M/S)	Project Cost (in Rs. lakhs)
1.	273.1 mm OD 4.8 thick MS Pipe	125	1.146	605.00
2.	300 mm dia DI K-7 Pipe	70	0.95	620.00
3.	315 mm OD HDPE Class PN-8	55	0.92	525.00

## Conclusion :

As per above statement the project cost for HDPE pipe is less, we prefer MS Pipe because of less maintenance and durability. And as the pipe length is more field owners may likely to make damage, hence MS pipe may suitable for the scheme. However, the factory may decide to finalize the any alternatives.

The above details are worked out based on survey details given by factory however detailed report will be done after confirmation of final approval of preliminary estimate.



**Salient features of scheme:-**

**1) Jack well and pump house:-**

Material of construction	:	RCC
Size	:	4 m dia
RL of pump house floor	:	500.00
Full reservoir level (FRL) of Dam	:	431.80 mtr
Maximum water level (MWL) of Dam	:	434.80 mtr
Top bank level of Dam	:	435.60 mtr
Height of pump house	:	4.5 mtr
Type of pump	:	Vertical pumps
No. Of pumps	:	1 working + 1 stand by

**2) Rising main:-**

Length	:	13800 mtr
Dia	:	273.1 mm (OD)
Types of pipe	:	MS pipe
Thickness of pipe	:	4.8 mm thick

**3) Pumping machinery:-**

KW/pump	:	125 HP
Number of pumps	:	2 Nos (1 working + 1 stand by)
Discharge for pump	:	85 to 90 LPS
Total head on pump	:	110 mtrs

**Note:- At the time of finalization we can submit necessary specification/tech. data of pumping machinery**





# Summary of Estimate for Jay Mahesh sugars Pawarwadi water supply scheme

Type of pipe : MS

Hours of pumping = 20 hours

Sr No	Description	Amount Rs
1	Jackwell & pumphouse 4m dia 12m ht jackwell & 4.5m ht pumphouse	2,000,000.00
	Approach channel	2,300,000.00
	Approach Bridge	2,200,000.00
2	Rising Main 273.1MM OD 4.8MM THK	49,993,028.90
3	Pumps & Motors with column pipe & MS manifold 100HP X 2Nos @ Rs-10000/HP	2,000,000.00
4	Electrical works with panel board, switch yard & transformer	2,000,000.00
	Total	60,493,028.90

## Estimate of MS Rising main

Sr No	Items	No	Length	Breadth	Depth	Qty	Unit	Rate Rs	Amount Rs
1	Excavation		13800	1.4	1.55	29946	Cum	100.00	2,994,600.00
2	Pipe								
	273.1mm THK 4.8 MM THK	1	13800			13800	m	3000.00	41,400,000.00
3	MS Specials & Thrust blocks		@ 3% of pipe cost						1,242,000.00
4	Murum bedding		13800	1.4	0.2	3864	Cum	200.00	772,800.00
5	AV 80mm dia	28				28	Nos	15000.00	420,000.00
	SV 150mm dia	12				12	Nos	10000.00	120,000.00
6	Valve chambers	40					Nos	25000.00	1,000,000.00
7	Refilling of pipes		29946	3864	1327	24754.96	Cum	26.00	643,628.90
8	Major Structure crossings	1				1	No	1000000.00	1,000,000.00
9	Structure crossings	4				4	Nos	100000.00	400,000.00
	Total								49,993,028.90





# Summery of Estimate for Jay Mahesh sugars Pawarwadi water supply scheme

Type of pipe : DI K-7      Hours of pumping = 20 hours

Sr No	Description	Amount Rs
1	Jackwell & pumphouse 4m dia 12m ht jackwell & 4.5m ht pumphouse	2,000,000.00
	Approach channel	2,300,000.00
	Approach Bridge	2,200,000.00
2	Rising Main 300MM DIA DI K-7 PIPE	52,697,828.90
3	Pumps & Motors with column pipe & MS manifold 70HP X 2Nos @ Rs-10000/HP	1,400,000.00
4	Electrical works with panel board, switch yard & transformer	1,400,000.00
	Total	61,997,828.90

## Estimate of DI Pipe Rising main

Sr No	Items	No	Length	Breadth	Depth	Qty	Unit	Rate Rs	Amount Rs
1	Excavation		13800	1.4	1.55	29946	Cum	100.00	2,994,600.00
2	Pipe								
	300mm Dia DI K-7 PIPE	1	13800			13800	m	3100.00	42,780,000.00
3	MS Specials & Thrust blocks		@ 6% of pipe cost						2,566,800.00
4	Murum bedding		13800	1.4	0.2	3864	Cum	200.00	772,800.00
5	AV 80mm dia	28				28	Nos	15000.00	420,000.00
	SV 150mm dia	12				12	Nos	10000.00	120,000.00
6	Valve chambers	40					Nos	25000.00	1,000,000.00
7	Refilling of pipes		29946	3864	1327	24754.96	Cum	26.00	643,628.90
8	Major Structure crossings	1				1	No	1000000.00	1,000,000.00
9	Structure crossings	4				4	Nos	100000.00	400,000.00
	Total								52,697,828.90



# Summery of Estimate for Jay Mahesh sugars Pawarwadi water supply scheme

Type of pipe : HDPE Hours of pumping = 20 hours

Sr No	Description	Amount Rs
1	Jackwell & pumphouse 4m dia 12m ht jackwell & 4.5m ht pumphouse	2,000,000.00
	Approach channel	2,300,000.00
	Approach Bridge	2,200,000.00
2	Rising Main 315MM OD PN-8 RATING	43,783,028.90
3	Pumps & Motors with column pipe & MS manifold	
	55HP X 2Nos @ Rs-10000/HP	1,100,000.00
4	Electrical works with panel board, switch yard & transformer	1,100,000.00
	Total	52,483,028.90

## Estimate of HDPE Rising main

Sr No	Items	No	Length	Breadth	Depth	Qty	Unit	Rate Rs	Amount Rs
1	Excavation		13800	1.4	1.55	29946	Cum	100.00	2,994,600.00
2	HDPE Pipe								
	315mm Dia PN 8	1	13800			13800	m	2400.00	33,120,000.00
3	MS Specials & Thrust blocks		@ 10% of pipe cost						3,312,000.00
4	Murum bedding		13800	1.4	0.2	3864	Cum	200.00	772,800.00
5	AV 80mm dia	28				28	Nos	15000.00	420,000.00
	SV 150mm dia	12				12	Nos	10000.00	120,000.00
6	Valve chambers	40					Nos	25000.00	1,000,000.00
7	Refilling of pipes		29946	3864	1327	24754.96	Cum	26.00	643,628.90
8	Major Structure crossings	1				1	No	1000000.00	1,000,000.00
9	Structure crossings	4				4	Nos	100000.00	400,000.00
	Total								43,783,028.90





**Jay Mahesh Sugars Ltd.**  
**Design of M.S. Pipe Rising Main**

Sl No	Description	Unit	Alt-1	Alt-2	Alt-3
1	a Outer dia of M.S pipe	m	0.219	0.273	0.324
	b Inner dia of M.S pipe	m	0.209	0.264	0.313
	c Total vol req considering losses per day	Cum	4500	4500	4500
	d Discharge( With 20 hrs pumping/day)	cumecs	0.063	0.063	0.063
		Cum/hour	225.00	225.00	225.00
	d Length (L)	Km	13.8	13.8	13.8
	e C Value of pipe		130	130	130
	f Thickness of pipe	mm	4.80	4.80	7.90
	g Velocity (V)	m/s	1.815	1.146	0.814
2	a Friction/km $H_f = Q^{1.85} \times 10.64 / C^{1.85} \times d^{4.87}$	m/km	15.681	5.121	2.225
	b Total Friction (Hf x length)	m	216.395	70.665	30.699
	c Add towards bends etc., @ 10%	m	21.639	7.066	3.070
	d Residual Head	m	1	1	1
	e Static Head (502-489.5)	m	12.5	12.5	12.5
3	WATER HAMMER $H_{max} = CV/g$				
	a $C = 1425 / ((1 + KD/Ect)^{0.5})$ $E = 2.1 \times 10^{10}$	m/s	1192	1148	1209
	b H max	m	220.45	134.11	100.26
	Thickness Calculation (Hoop tension)				
	f $t = PD/2FS$ $F = 0.90$ $S = 1200$ Kg/sqcm	mm	4.88	2.23	1.37
	g Provide Thk of (with corrosion allowance)	mm	4.80	4.80	5.60
	h Head on Rising main (2xoperating pressure)	m	503.07	182.46	94.54
	f Head on Rising main ( Static + water hammer)	m	232.95	146.61	112.76
	g Max Head on Rising main ( Max of Sl No-3e,3f)	m	503.07	182.46	112.76
4	a Pumping main head (2b+2c+2d+2e)	m	251.53	91.23	47.27
	b power req @BOWL(cum/hrXH)/(367.2xh(80%eff)	KW	193	70	36
	c power req @Motor(power req @ bowl(KW)/0.955)	KW	202	73	38
<b>Pumps</b>					
1	No. of Pumps (Working + Standby)	Nos.	1+1	1+1	1+1
2	KW / Pump	KW	193	70	36
	HP / Pump	HP	259	94	49
3	Q / Pump	LPS	62.5	62.5	62.5
4	Input Power of motor	KW	201.7	73.2	37.9
5	Head on pump	m	251.53	91.23	47.27
<b>Rising Main</b>					
1	Outer dia of MS pipe.	mm	219	273.1	323.9
2	Length	m	13800	13800	13800
3	Thickness of Pipe	mm	4.80	4.80	7.90

proposed MS rising main of 273 mm OD of 4.8mm thk





From Jackwell to Tank				
SL NO	DESCRIPTION	250	300	350
1	Discharge in( LPS)	62.500	62.500	62.500
2	Pumping Hours(hrs)	20	20	20
3	Value of HWC for pipe	130	130	130
4	Designed length (m)	13800	13800	13800
5	Loss per 1000m length,(m)	7.98	3.18	1.46
6	Total friction losses (10%) Including bends & etc,(m)	121.169	48.204	22.213
7	Delivery Head,(m)(pump level to FSL)	12.50	12.50	12.50
8	Suction Head,(m)	0.00	0.00	0.00
9	Residual Head,(m)	1.00	1.00	1.00
10	Total Head,(m)	134.67	61.70	35.71
11	BHP (80% EFFICIENCY)	140.28	64.27	37.20
12	KW Required	104.65	47.95	27.75
13	Cost of pumping machinery at 4000 per BHP	561123	257099	148804
14	Total Energy charges per year (0.746*20*365*hp*Energy Charges)	2100836	962576	557119
15	M&R Depreciation Charges(at 7.5% of item 14)	42084	19282	11160
16	Total O&M Charges	2142920	981858	568279
17	Capitalised value of O&M Charges	14709002	6739474	3900667
18	Cost of pipe Rs/per m	2750.00	3830.00	4400.00
19	Total cost of pipes	37950000	52854000	60720000
20	Grand total of capitalised cost for 10 years	53220125	59850573	64769471

INPUT DATA FOR RAISING MAIN  
From Jackwell to Tank

TYPE OF PUMP- VT PUMP

Jay Mahesh Sugars Ltd.

DI pipe

SL NO	DESCRIPTION	RESULTS
1		
2		
3		
4	Rate of pumping (cum/sec)	0.0625
5	Rate of pumping (Lph)	225000.00
6	Number of Hrs of Pumping	20
7	Rate of Pumping (lps)	62.50
8	C=Hazen Williams Constant for Pipe material	130
9	L=Total Length or horizontal length of rising main	13800
10		
11	DH = Delivery Head	12.500
12	RH=Residual Head (m)	1
13		
14	LWL	489.500
15	RI of Full Supply Level	502.000

WATER HAMMER DESIGN FOR RISING MAIN

NO	DESCRIPTION	250	300	350
1	Dia(mm)(inner dia)	240	290	340
2	Type of pipe	DI K-7	DI K-7	DI K-7
3	Pipe rating(KSC)	50.00	50.00	50.00
4	Length(m)	13800	13800	13800
5	Discharge(Cumecs)	0.0625	0.0625	0.0625
6	R.L.at sumpwell	489.5	489.5	489.5
7	RI of Full Supply Level of filter water tank	502	502	502
8	Head of pumping main	12.5	12.5	12.5
9	Thickness(mm)	8.00	9.00	10.00
10	Area of pipe(sqmm)	0.04524365	0.066058868	0.09080149
11	Velocity(m/s)	1.38	0.95	0.69
12	Pressure wave velocity(m/s)	1219.64	1207.74	1198.46
13	Water hammer pressure(m)	171.75	116.48	84.09

Options for selection of Design Pressures

14	(1) Design Pressure Static Head + Water Hammer Head	184.25	128.98	96.59
15	(2) Design Pressure = 2 x Static Head	25.00	25.00	25.00
16	Design Head (m)	184.25	128.98	96.59
17	Total Pressure (Ksc)	18.42	12.90	9.66
18	Required Pressure Class of Pipe	50.00	50.00	40.00

C	130
Q	62.50
L	13800
T	20
DH	12.5
SH	0
RH	1
RL of GL @ filter	489.500
RL OF FSL	502
RATE OF PIPE	6
pipe,mat	pvc

PROVIDE 70 HP-2Nos(1W+1S)



# Jay Mahesh Sugars Ltd.

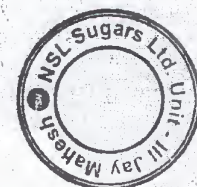
## DESIGN OF HDPE RISING MAIN

Sl	No	Description	Unit	Alt-1	Alt-2	Alt-3
1	a	Diameter (Outer Dia)	mm	250	280	315
	b	Diameter (Inner Dia)	m	0.232	0.261	0.294
	c	Total vol req considering losses per day	Cum	4500	4500	4500
	d	Discharge( With 20 hrs pumping)	cumecs	0.063	0.063	0.063
			Cum/hour	225	225	225
	e	Length (L)	Km	13.8	13.8	13.8
	f	No of Rows of pipe	Nos	1	1	1
	g	Type of pipe	HDPE	PN16	PN12.5	PN8
	h	C Value		145	145	145
	i	Velocity (V)	m/s	1.478	1.173	0.921
2	a	Friction/km $S=Q^{1.85} \times 10.64 / C^{1.85} \times d^{4.87}$	m/km	7.778	4.424	2.454
	b	Total Friction (friction/km x length)	m	107.335	61.050	33.870
	c	Add towards bends valves in R.M. etc., @ 10%	m	10.734	6.105	3.387
	e	Residual head	m	1.000	1.000	1.000
	d	Static Head (502-489.5)	m	12.5	12.5	12.5
3	a	Total Head (For Pumping main)	m	131.57	80.65	50.76
	b	power req @BOWL(cum/hrXH)/(367.2xn(80%eff)	KW	101	62	39
	c	power req @Motor(power req @ bowl(KW)/0.955)	KW	106	65	41

Pumps/ Row					
1	No. of Pumps	Nos.	2	2	2
2	KW / Pump	KW	101	62	39
3	Q / Pump	Cum/Sec	0.063	0.063	0.063
4	Head on pump	m	131.57	80.65	50.76

Rising Main/ Row					
1	Dia (OD) OF PVC	mm	250	280	315
2	Length	mt	13800	13800	13800

With ref. to max allowable velocity, we propose of dia . 315 mm OD





**FORM No. 7****ANNEXURE - 2**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

Company Name:- **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period **25-Jan-17** To **25-Jan-18**Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
3	1	MAHADEV RAM DUHTDEMAL	Male	46				Fit	
4	2	DHUMAL SUNIL VAIJENATH	Male	36				Fit	
5	3	SURWASE DATTATRYE BHAGWAN	Male	49				Fit	
6			Male					Fit	
7	4	SHEJUL DATTATRYA LAXMAN	Male	38				Fit	
8	5	PAWAR DHONDIRAM PANDURANG	Male	42				Fit	
9			Male					Fit	
10	5	PAWAR DHONDIRAM PANDURAN	Male	42				Fit	
11	6	TOLE KALYAN GANPAT	Male	32				Fit	
12	7	BHASKAR ARJUN PANDURANG	Male	42				Fit	
13	8	Choughule Venkat Bhagwanrao	Male	52				Fit	
14	9	DILIP SHARMA	Male	45				Fit	
15	10	RATHOD SUGRIV	Male	33				Fit	
16	11	BHASKAR DINKAR KOKATE	Male	43				Fit	
17	12	SATISH BABURAO KUNDKAR	Male	32				Fit	
18			Male					Fit	
19	13	CHAVHAN VILAS PARBHV	Male	30				Fit	
20	14	MUDRIKA YADAV	Male	42				Fit	
21	15	KANDE RAJEBHAV PARBHAKAR	Male	42				Fit	
22	16	SHENDGE DATTATRYA RAMKISAN	Male	41				Fit	
23	17	GAWTE SARJERAO MADANRAO	Male	36				Fit	
24	18	MORE SUBHASH MUNJABHAU	Male	36				Fit	
25	19	DHAWALE HARIBHAU PANDURANG	Male	36				Fit	
26	20	P S SONAWNE	Male	45				Fit	
27	21	SANTOSH CHVHAN	Male	30				Fit	
28	22	TUKARAM MAROTIRAO MANE	Male	40				Fit	
29	23	YADAV SHREERAM RAJDEV	Male	43				Fit	

डॉ सुर्यकांत मुंदे  
प्राधिकृत प्रमाणक शल्यचिकित्सक, जि.बी.  
क्र ACS05 SM/2016




**FORM No. 7**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

Company Name:- **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period 25-Jan-17 To 25-Jan-18Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
29	23	YADAV SHREERAM RAJDEV	Male	43				Fit	      
30			Male					Fit	
31	24	M SHIVAIH	Male	32				Fit	
32	25	GAIKWAD RAMESHWAR DATTATRYA	Male	35				Fit	
33	26	SAKERA ASHOK KALIDAS	Male	28				Fit	
34	27	SHELKE SAWALARAM PRABHAKAR	Male	35				Fit	
35	28	KULKARNI SANTOSH JAGANNATH	Male	43				Fit	
36	29	THAWRE ASHOK KADAJI	Male	36				Fit	
37	30	CHAVAN BABURAO ALU	Male	40				Fit	
38	31	Dhakne Shankar Madhavrao	Male	43				Fit	
39	32	PHAPHAL HARIDAS SOPAN	Male	33				Fit	
40	33	DHAPE VISHNU ASHRUBA	Male	44				Fit	
41	34	YADAV DILIP RAJKISHOR	Male	40				Fit	
42	35	KOTHAWALE BIBISHAN SHAHAJI	Male	46				Fit	
43	36	MANE DATTATRY LAXMAN	Male	35				Fit	
44	37	DHUMAL RAJBHAV	Male	35				Fit	
45	38	JAIRAM YADAV	Male	45				Fit	
46	39	NAVNATH SUDAMMOTE	Male	32				Fit	
47	40	PARBHVNATH PARSAD	Male	45				Fit	
48	41	JADHAV DATTATRYA RATAN	Male	34				Fit	
49			Male					Fit	
50	42	RATHOD GANESH GOWARDHAN	Male	44				Fit	
51	43	PAWAR RAJEBHAU CHAGAN	Male	38				Fit	
52	44	PAWAR RAMRAO JEMU	Male	44				Fit	
53	45	VAIDYA GYANOJI SHRIRANG	Male	39				Fit	
54	46	CHANDRAMA SINGH PANCHDEO	Male	42				Fit	
55	47	DINANATH JAIMANGAL YADAV	Male	40				Fit	

डॉ. सुर्यकांत मुंडे  
 प्राधिकृत प्रमाणक शल्यचिकित्सक, जि. बी.  
 क्र. ACS05 SM/2016

Limited Duties



**FORM No. 7**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

Company Name: **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period **25-Jan-17 To 25-Jan-18**Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
56	48	ASWALE UMAKANT BABURAO	Male	52				Fit	
57	49	SK. NAZAM SK.HUSAN	Male	40				Fit	
58	51	MANE MALHARI TUKARAM	Male	45				Fit	
59	52	ANKOSHKAR MAROTI	Male	45				Fit	
60	53	GHANGHAW GHANGHAV PIRAJI DADARAO	Male	33				Fit	
61	54	JADHAV VITHAL SHANKAR	Male	31				Fit	
62	55	P T KALE	Male	37				Fit	
63	56	RAMESHWAR GYNOBA RAUT	Male	30				Fit	
64	57	SHIVSHANKAR JAISWAL	Male	36				Fit	
65	58	PAWAR ANGAD NAVNATH	Male	22				Fit	
66	59	SHIVAMBABU DANDEM	Male	46				Fit	
67	60	CHAVAN CHAGAN THAWRA	Male	58				Fit	
68	61	PAWAR MAROTI UTTAM	Male	31				Fit	
69	62	SK. RAFIK SK. KADAR	Male	41				Fit	
70	63	YADAV OMPRAKASH NAGINA	Male	43				Fit	
71	64	KUSHWAHA OMPRAKASH VIDHYACHAL	Male	41				Fit	
72	65	ROKADE RAMKISAN BHIVAJI	Male	41				Fit	
73	66	PAWAR KESHAV YAMAJI	Male	24				Fit	
74	67	KUNDKAR ASHOK SHIVAJI	Male	35				Fit	
75	68	BOCHARE UDDHAV NIVARATTI	Male	41				Fit	
76	69	KAMESHWAR CHAUDHARY	Male	50				Fit	
77	70	LAKHICHAND YADAV	Male	35				Fit	
78	71	CHAVAN SHRIMANT KHANDU	Male	43				Fit	
79	72	YADAV SATISH SHIVAJIRAO	Male	39				Fit	
80	73	RODE DATTA MAHADU	Male	38				Fit	
81	74	KALE LAXMAN DHONDIRAM	Male	36				Fit	
82	75	THEETE MOTIRAM VISHWANATH	Male	48				Fit	

**FORM No. 7**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

Company Name:- **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period **25-Jan-17** To **25-Jan-18**Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
83	76	THONGE PANDIT TULSIRAM	Male	45				Fit	 <b>डॉ. सुर्यकांत मुंडे</b> प्राधिकृत प्रमाणक शल्यचिकित्सक, जि.वी.ड <b>क्र. ACS05 SM/2016</b>
84	77	THERE BHAGWAT	Male	35				Fit	
85	78	ADAVE RAHEBHAU	Male	32				Fit	
86	79	BILWAL KALYAN SINGH ASHARAM	Male	56				Fit	
87	80	PAWAR ASHOK VIJANATH	Male	30				Fit	
88	81	GIRI SHYAM MURLIDHAR	Male	32				Fit	
89	82	RAMESHWAR THAWRE	Male	40				Fit	
90	83	CHAVAN GANESH PANDHARINATH	Male	36				Fit	
91	84	KHADUL RAMESHWAR RADHAKISAN	Male	34				Fit	
92	85	GHAYTIDKE KRISHNADEV	Male	33				Fit	
93	86	NAWLE BALKRISHNA SHANKARRAO	Male	54				Fit	
94	87	DHAGE BALASAHEB	Male	45				Fit	
95	88	KALE DATTA SOPANRAO	Male	29				Fit	
96	89	MANE SATYAPREM BAJIRAO	Male	42				Fit	
97			Male					Fit	
98	89	MANE SATYAPREM BAJIRAO	Male	42				Fit	
100	90	TONDE DATTATRYA BABAN	Male	28				Fit	
101	91	DATTA BHARAT	Male	25				Fit	
102	92	DHAKNE MALHARI SAKHRAM	Male	40				Fit	
103	93	KAMBLE VIDHWANATH LAXMAN	Male	45				Fit	
104	94	KHARADE SATYAPREM ASHOKRAO	Male	35				Fit	
105	95	KAPSE SANJAY EKANATH	Male	42				Fit	
106	96	DAKE ASHOK VITHALRAO	Male	31				Fit	
107	97	GHANGHAV GORAKH RAMBAHU	Male	36				Fit	
108			Male					Fit	
109	98	GIRI CHINTMANI PRALADH	Male	34				Fit	
110	99	JAY PARKASH YADAV	Male	45				Fit	



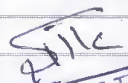
**FORM No. 7**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees in occupations declared to be dangerous operations under section B7 )

Company Name:- **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period 25-Jan-17 To 25-Jan-18Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
111	100	GADVE ANGAD BABURAO	Male	30				Fit	
112			Male					Fit	
113	101	SUNIL KUMAR	Male	41				Fit	
114	102	MANE CHANGURAM	Male	37				Fit	
115	103	NARVATE VITTAL	Male	32				Fit	
116	104	CHORMOLE AANANT	Male	36				Fit	
117	105	PANKAJ SIGH	Male	26				Fit	
118	106	JETANDRA PARSAD	Male	28				Fit	
119	107	MAROTI BHILLARE	Male	31				Fit	
120	108	RAJKUMAR SINGH	Male	34				Fit	
121	109	RATHOD BANDU	Male	37				Fit	
122	110	BALASAHEB SAJUDE	Male	45				Fit	
123	111	DATTATRYA KADAM	Male	49				Fit	
124	112	R G RATHOD	Male	45				Fit	
125	114	B G PAWAR	Male	39				Fit	
126	115	DONGRE DILIP	Male	55				Fit	
127	116	UTTAM PAWAR	Male	45				Fit	
128	118	KOLHE SATISH	Male	33				Fit	
129	119	LAXAMAN THOURE	Male	40				Fit	<div style="text-align: right;">   <b>डॉ. सु. किरण मुंदे</b>            प्राधिकृत प्रमाणक शल्यचिकित्सक, जि.बी.ड.  <b>क्र. ACS05 SM/2016</b> </div>
130	120	SURESH GIRI	Male	39				Fit	
131	121	DEVIDAS CHUMBUDE	Male	40				Fit	
132	122	RAOUT PANDURANG	Male	33				Fit	
133	123	VINAYAK KADAM	Male	42				Fit	
134	124	HARIBHAU THOURE	Male	32				Fit	
135	125	BAGWANT THOURE	Male	26				Fit	
136	126	VIJAY JOSHI	Male	46				Fit	
137	117	VAIBHAU TUKARAM SUJDE	Male	30				Fit	



**FORM No. 7**

[ Prescribed under Rule 18(7) ]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

Company Name:- **NSL SUGARS LIMITED UNIT 3 PAWARWADI**Fitness Checkup Period 25-Jan-17 To 25-Jan-18Name of Certifying Surgeon: **Dr.S.B. Mundhe**

Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
138	127	GANESH THOURE	Male	27				Fit	
139	128	UTTAM RATHOD	Male	44				Fit	
140	129	SHIVAJI DADVE	Male	47				Fit	
141	130	RAJEBHAU THOURAT	Male	40				Fit	
142	131	VIKRAM MUNGLE	Male	28				Fit	
143	132	SUNDAR PAWAR	Male	30				Fit	
144	133	R B MOGARKAR	Male	63				Fit	
145	134	UTTAM CHAVHAN	Male	50				Fit	
146	135	LALAN YADAV	Male	53				Fit	
147	136	S B DAKE	Male	35				Fit	
148	137	SURAJ TIWARI	Male	24				Fit	
149	138	SANTOSH PODE	Male	30				Fit	
150	139	S RADHAKRISHNA	Male	45				Fit	
151	140	GOVIND RATHOD	Male	35				Fit	
152	141	K KISHOR KUMAR	Male	34				Fit	
153	142	ANIL JAGTAP	Male	30				Fit	
154	143	SHANKAR CHAVAN	Male	33				Fit	
155	144	RUSHIKESH DESHMUKH	Male	38				Fit	
156	145	HOKE ASHOK	Male	39				Fit	
157	146	PARSHANT MISHRA	Male	38				Fit	
158	147	D R SADURKAR	Male	49				Fit	
159	148	THOURAT GAOUTAM	Male	43				Fit	 डा. सुर्यकांत मुंडे प्राधिकृत प्रमाणक शल्यचिकित्सक, जि.बी.ड क्र. ACS05 SM/2016
160	149	RAVI KUMAR	Male	39				Fit	
161	150	SHIVPARSAD CHAKARWAR	Male	29				Fit	
162	151	ABHIJET KULKARNI	Male	28				Fit	
163	152	DHIRENDRA PETERIYA	Male	28				Fit	
164	153	AMIT AVASTHI	Male	26				Fit	

**FORM No. 7**

[ Prescribed under Rule 18(7)]

**HEALTH REGISTER**

( In respect of person employees is occupations declared to be dangerous operations under section B7 )

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Sr.No	Emp Code	Employee Name	Sex	Age	Date of Empl	Nature of Job or Occupation	Raw Material or Bye Product handled	Employee Fit	Signature of Certifying Surgeon
165	154	SANTOSH KHANDAGUDE	Male	41				Fit	
166	155	SOMNATH GAIKWAD	Male	42				Fit	
167	156	KAILAS PAWAR	Male	29				Fit	
168	157	AMOL JOSHI	Male	38				Fit	
169	158	PARSHANT DIGRISKAR	Male	34				Fit	
170	159	TAYANAK DATTATRY	Male	45				Fit	
171	160	KADAM MEGHRAJ	Male	36				Fit	
172	161	TUKARAM VAGRE	Male	26				Fit	
173	162	KAMBLE JALBA DIGAMBAR	Male	40				Fit	
174	164	AMAR SINGH	Male	32				Fit	For Limited duties
175	165	BHARDE GAJANAN	Male	33				Fit	
176	166	RAJU LAXANATTI	Male	33				Fit	
177	167	RAJENDRA RATHODE	Male	42				Fit	
178	168	M A KHAN	Male	32				Fit	
179	169	KAILASH CHOUDHARI	Male	42				Fit	
180	170	BABAN YEWALE	Male	53				Fit	
181	171	KAKDE CHANDRAKANT	Male	41				Fit	
182	172	DAKE S S	Male	39				Fit	
183	174	PRAKASH MARWADE	Male	32				Fit	
184	173	GHAYTIDKE P C	Male	37				Fit	
185	163	PHAPHAD BHAUSAHEB	Male	29				Fit	
186			Male					Fit	

डा. सु. का. मु. डे  
प्रमाणित प्रमाणक शल्यचिकित्सक, जि. बी. डे  
क्र. ACS 25 SM/2016  
For Limited Duties



**NSL SUGARS LIMITED UNIT 3 PAWARWADI**

Check-up Date **25-Jan-17** To **25-Jan-18**

Employee Name: <b>GANESH THOURE</b>		Sr No: 138
Employee Code: <b>127</b>	Dept name: <b>WTP</b>	Age: 27 Yrs
Working Since: <b>Years</b>	Height: 158 Cms	Weight: 60 Kgs Dsgn:
		Sex: Male

**Present Complaints**

Present Complaints Nil

Family History:	<input type="checkbox"/> Hypertention	<input type="checkbox"/> Diabetic	<input type="checkbox"/> Asthmatic	Past History:	Nil
Habits:	<input type="checkbox"/> Tobacco	<input type="checkbox"/> Smoker	<input type="checkbox"/> Alcoholic		
Allergic to:	Nil			M/H and O/H:	NA

**General Examination**

General Appearance: Healthy

Pulse:	72 /mt	BP:	123 / 73 / mm of Hg
EYE NAD	ENT: NAD		Skin: Nil
Vision	Near Right Eye: N / 6	Far Right Eye: 6 / 6	With/Without Spects: Without Spects
	Near Left Eye: N / 6	Far Left Eye: 6 / 6	Colour Vision: Normal

**Systemic Examination**

LFT: WNL

ECG: WNL

RS: NAD	CVS: NAD	GIT: NAD
CNS: NAD	GUS: NAD	MS: NAD

**Pathological Examination**

Test Description	Actual	Normal Range	Test Description	Actual	Normal Range
Haemoglobin:	13.5	M: 13.5 to 18, F: 11.5 to 16.5	Lymphocytes:	30 %	20 % to 40 %
Total W.B.C.	6800	4000 - 10000 c. mm	Monocytes:	7 %	1 % to 6 %
Neutrophils:	60	50 % to 75 %	RBC:	4.5 mill/c.mm	4.0-8.0 mill/cmm
Eosinophils:	3	0 % to 6 %	PCV:	41 %	38 % - 55 %
Basophils:	0	0 % to 1 %	ESR:		M: 0-15 F: 0-20 mm/hr

Blood Group: **A Positive**

Blood Random Sugar: Upto 150 mg/dl

**Lipid Profile**

Test Description	Actual	Normal Range	Test Description	Actual	Normal Range
Cholesterol:		130 - 250 mg/dl	VLDL:	0.0	Upto 35 mg/dl
HDL:	0.0	30 - 70 mg/dl	Chol. Hdl Ratio:		Upto 5.0 mg/dl
Triglycerides:	0.0	Upto 250 mg/dl	Ldl Hdl Ratio:		Upto 5.0 mg/dl
LDL:		Upto 150 mg/dl			

**Biochemestory**

SGOT:	Not Done	840 u/ml	S.Creatinine:	0.5 - 1.5 mg/dl
SGPT:	Not Done	5 - 35 u/ml	BUN:	mg/dl
			X-Ray:	Not Done

**Urine Examination**

Test Description	Actual Reading	Test Description	Actual Reading
Colour:	Yellow	Puscells:	Absent
Proteins:	Absent	Epithelial Cells	Absent
Urine Sugar:	Absent	Reaction:	Acidic
Ketone:	Absent	Rbc's:	Absent

**Audiometry**

Left Ear

Wnl

Right Ear

Wnl

ADVISE:- Nil

डॉ सुर्गाकांत मुंडे

Free From Tuberculosis, Skin and Other Communicable or Contagious Disease

This Employee is Fit For Job

क्र ACS05 5/11/2016

# MUNDHE CHILDREN HOSPITAL

## Critical Care & Occupational Health Centre

**Dr. S. B. Mundhe**  
M.B.B.S., M.D., D.C.H., A.F.I.H.  
Reg. No. 66488

Near Bus Stand, Jay Nagar, In Front of Dube Petrol Pump, Ambajogai Road, PARLI-VAJNATH, Dist. Beed. Ph.: 223184, 223584

### AUDIOGRAM

Sr. No. 127 Screening Test:

Name Amrta

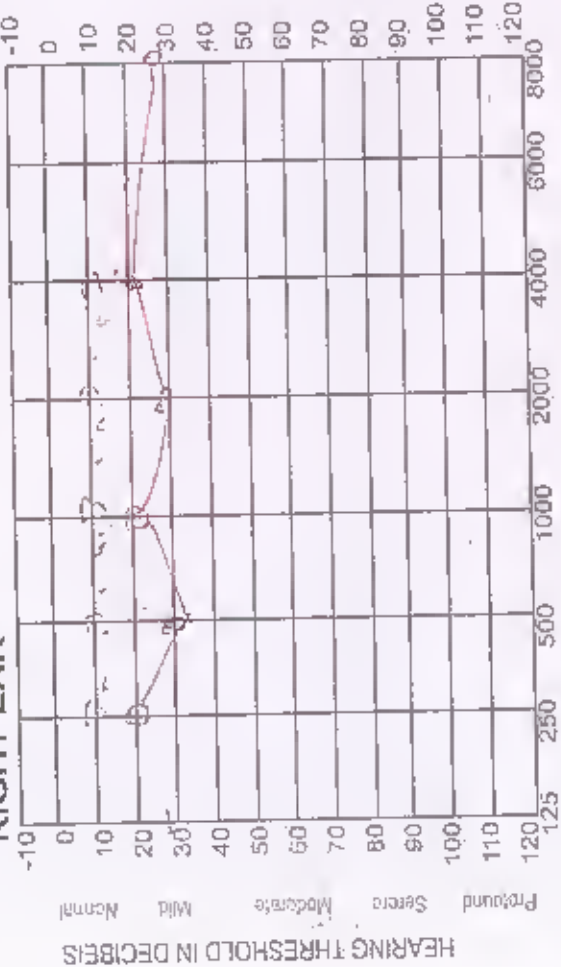
Date: 25/1/2012

Date: 25/1/2012

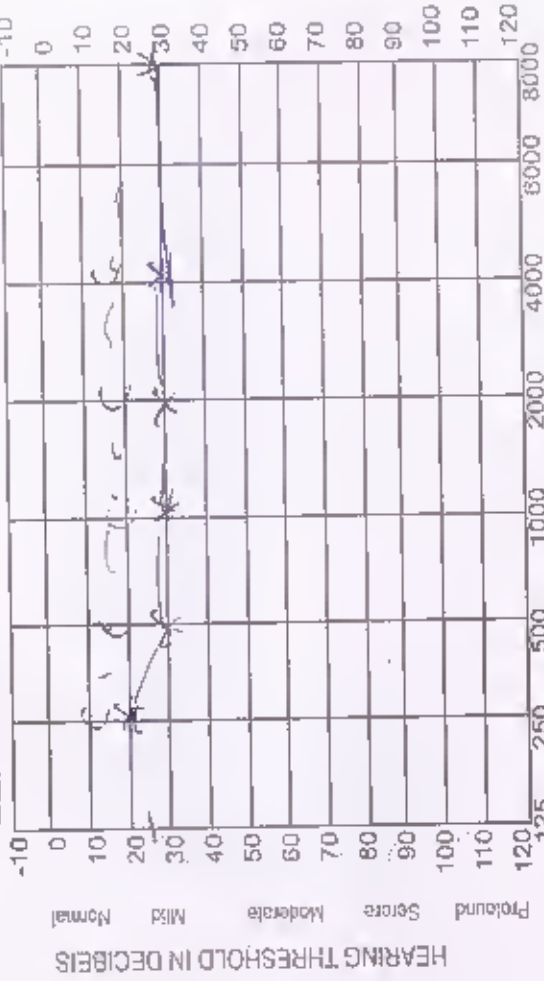
Age: 2.7

Occupation:

#### RIGHT EAR



#### LEFT EAR



Symbol

Mode Ear	Air Conduction		Bone Conduction		Colour Code
	Masked	Unmasked	Masked	Unmasked	
Right	△	○	∩	>	Red
Left	□	×	∪	<	Blue
No Response	Add	↓ below the respective symbols			

REMARKS

Bil. Hearing sensitivity within normal limits.

gilt  
Audiologist

# JREN HOSPITAL

VAIJNATH

DR S B MUNDHE

DR S B MUNDHE

BARCELONA

15-Jan-2017 04:25 PM

Age : 27 Years

Height : 158 Cms

Weight : 60 Kgs

ID: 127

Gender : Male

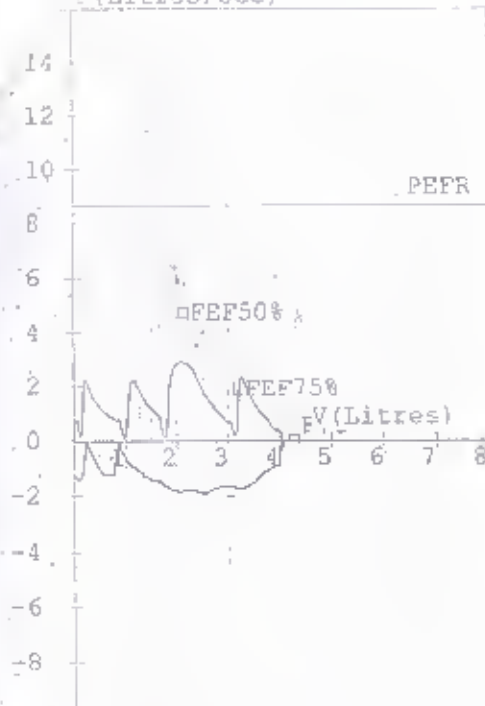
Smoker : No

Eth. Corr: 100

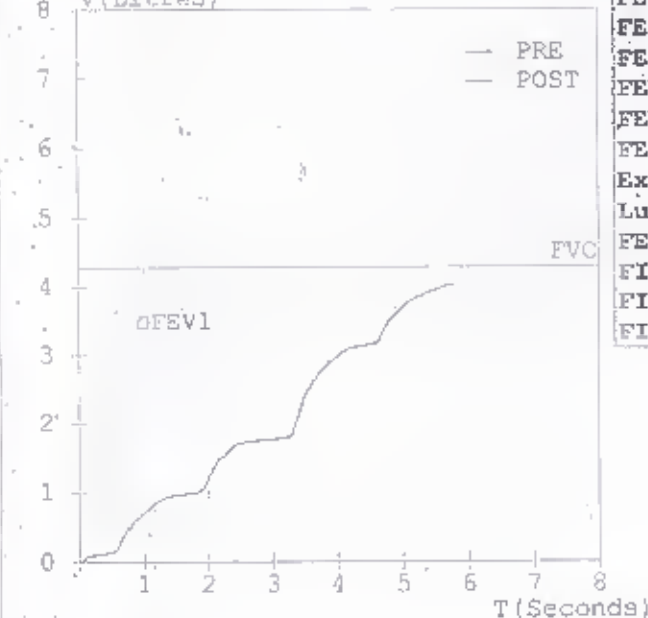
Temp :



F(Litres/Sec)



V (Litres)



FVC&Pred Interpretation

150	OBS	NORM
125		
100	+	
75		
50		
25	MIXED	RES
0		
	25 50 75 100 125 150	

(FEV1/FVC)\*Pred

Spirometry (FVC Results)

Parameter	Prd	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC (L)	04.27	04.03	094	-----	---	---
FEV1 (L)	03.47	00.73	021	-----	---	---
FEV1/FVC (%)	81.26	18.11	022	-----	---	---
FEF25-75 (L/s)	03.87	00.89	023	-----	---	---
PEFR (L/s)	08.68	02.86	033	-----	---	---
FIVC (L)	-----	04.28	---	-----	---	---
FEV.5 (L)	-----	00.15	---	-----	---	---
FEV3 (L)	-----	01.78	---	-----	---	---
PIFR (L/s)	-----	01.94	---	-----	---	---
FEF75-85 (L/s)	-----	00.58	---	-----	---	---
FEF 2-1.2 (L/s)	-----	00.71	---	-----	---	---
FEF 25% (L/s)	-----	00.17	---	-----	---	---
FEF 50% (L/s)	04.70	02.79	059	-----	---	---
FEF 75% (L/s)	01.90	00.65	034	-----	---	---
FEV.5/FVC (%)	-----	03.72	---	-----	---	---
FEV3/FVC (%)	-----	44.17	---	-----	---	---
FET (Sec)	-----	05.73	---	-----	---	---
ExptTime (Sec)	-----	00.08	---	-----	---	---
Lung Age (Yrs)	027	048	178	-----	---	---
FEV6 (L)	04.27	04.04	095	-----	---	---
FIF25% (L/s)	-----	01.76	---	-----	---	---
FIF50% (L/s)	-----	01.50	---	-----	---	---
FIF75% (L/s)	-----	01.24	---	-----	---	---

Doctor's Notes

SPIROMETRY WITHIN NORMAL LIMITS

DR S B MUNDHE  
MBBS MD DCH AFH



ID: 323

Years:  
cm

mmHg

kg

Diagnosis Information:  
Sinus Arrhythmia  
Poor R Wave Progression  
Inverted T Wave (V2)

HR:

P:

PR:

QRS:

QT/QTc

P/QRS/T

RV/SL/CI

CHD/ST

87 bpm

107 ms

149 ms

84 ms

375/397 ms

586/47 ms

335/21.230 mV

127

2.5

5.1



9.7 MUNDE CHILDREN HOSPITAL

Report Confirmed by:

Dr. S. B. Mundhe  
M.B.B.S, M.D, D.C.H, A.F.I.H  
Certified Surgeon  
Reg No : 66488  
Beed, Aurangabad

**MEDICAL CHECK-UP REPORT**  
( Pre-employment / Periodical Examination )

Phone:  
Dr. S. B. Mundhe 223184, 22358

**NSL SUGARS LIMITED UNIT 3 PAWARWADI**

Check-up Date 25-Jan-17 To 25-Jan-18

Employee Name: <b>PARSHANT DIGRISKAR</b>				Sr No: 169	
Employee Code: <b>158</b>		Dept name: <b>WTP</b>		Age: 34 Yrs	
Working Since: Years		Height: 169 Cms		Weight: 70 Kgs Dsgn:	
				Sex: Male	
<b>Present Complaints</b> Present Complaints Nil					
Family History:		<input type="checkbox"/> Hypertention <input type="checkbox"/> Diabetic <input type="checkbox"/> Asthmatic		Past History: Nil	
Habits:		<input type="checkbox"/> Tobacco <input type="checkbox"/> Smoker <input type="checkbox"/> Alcoholic			
Allergic to: Nil		M/H and O/H: NA			
<b>General Examination</b> General Appearance: Healthy					
Pulse: 78 / ml		BP: 133 / 88 / mm of Hg			
EYE NAD		ENT: NAD		Skin: Nil	
Vision	Near Right Eye:	N / 6	Far Right Eye:	6 / 6	With/Without Spects: Without Spects
	Near Left Eye:	N / 6	Far Left Eye:	6 / 6	Colour Vision: Normal
<b>Systemic Examination</b> LFT: WNL ECG: WNL					
RS: NAD		CVS: NAD		GIT: NAD	
CNS: NAD		GUS: NAD		MS: NAD	
<b>Pathological Examination</b>					
Test Description	Actual	Normal Range	Test Description	Actual	Normal Range
Haemoglobin:	14.8	M: 13.5 to 18, F: 11.5 to 16.5	Lymphocytes:	30 %	20 % to 40 %
Total W.B.C.	9500	4000 - 10000 c. mm	Monocytes:	7 %	1 % to 6 %
Neutrophils:	60	50 % to 75 %	RBC:	4.9 mill/cmm	4.0-6.0 mill/cmm
Eosinophils:	3	0 % to 6 %	PCV:	44 %	38 % - 55 %
Basophils:	0	0 % to 1 %	ESR:		M: 0-15 F: 0-20 mm/hr
Blood Group: O		Positive		Blood Random Sugar: Upto 150 mg/dl	
<b>Lipid Profile</b>					
Test Description	Actual	Normal Range	Test Description	Actual	Normal Range
Cholesterol:		130 - 250 mg/dl	VLDL:	0.0	Upto 35 mg/dl
HDL:	0.0	30 - 70 mg/dl	Chol. Hdl Ratio:		Upto 5.0 mg/dl
Triglycerides:	0.0	Upto 250 mg/dl	Ldl Hdl Ratio:		Upto 5.0 mg/dl
LDL:		Upto 150 mg/dl			
<b>Biochemestory</b>					
SGOT :	Not Done	8-40 u/ml	S.Creatinine :		0.5 - 1.5 mg/dl
SGPT :	Not Done	5 - 35 u/ml	BUN :	mg/dl	X-Ray : Not Done
<b>Urine Examination</b>					
Test Description	Actual Reading		Test Description	Actual Reading	
Colour:	Yellow		Puscells:	Absent	
Proteins:	Absent		Epithelial Cells	Absent	
Urine Sugar:	Absent		Reaction:	Acidic	
Ketone:	Absent		Rbc's:	Absent	
Audiometry:	Left Ear	Wnl	Right Ear	Wnl	
ADVISE:- Nil					
Free From Tuberculosis, Skin and Other Communicable or Contagious Disease					
This Employee is Fit For Job					

डॉ. सुर्यकांत मुंडे

Signature  
ACSES SM/2016



# MUNDHE CHILDREN HOSPITAL

Critical Care & Occupational Health Centre

Dr. S. B. Mundhe

MB.B.S., M.D., D.C.H., A.F.I.H.

Reg.No.66488

Near Bus Stand, Jay Nagar, In Front of Dube Petrol Pump, Ambajogai Road, PARLI-VAIJNATH, Dist.Beed. Ph.:223184, 223584

## AUDIOGRAM

St. No. 158 Screening Test:

Name: SATYU DASHARATH

Date: 1 / 20

Date: 1 / 20

Age: 34

Occupation:

### RIGHT EAR



### LEFT EAR



TEST FREQUENCY IN HERTZ

Conduction	Bone Conduction		Colour Code
	Unmasked	Masked	
O			Red Blue
X			

Follow the respective symbols

REMARKS

Bilateral hearing sensitivity  
within normal limits

Audiologist

# HOSPITAL

DIGRESKAR  
MUNDHE  
ELONA  
2017 05:51 PM

Age : 34 Years  
Height : 169 Cms  
Weight : 70.Kgs  
ID: 158

Gender : Male  
Smoker : No  
Eth. Corr: 100  
Temp :



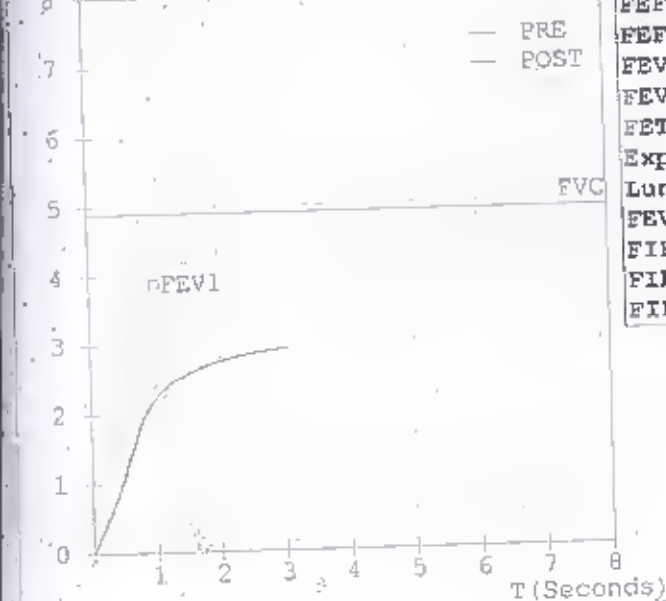
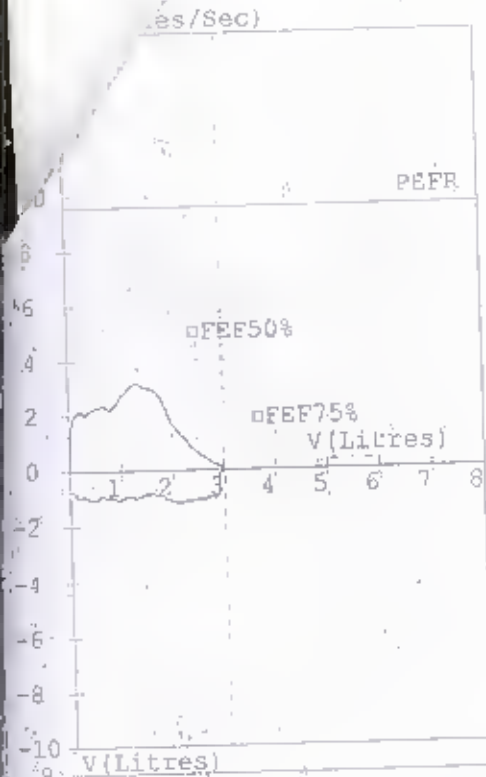
FVC&Pred Interpretation

150		
125	OBS	NORM
100		
75		
50		
25	MIXED	RES
0		
	25 50 75 100 125 150	

(FEV1/FVC)%Pred

## Spirometry(FVC Results)

Parameter	Pred	M.Pre	%Pred	M.Post	%Pred	%Imp
FVC (L)	04.91	02.95	060	-----	---	---
FEV1 (L)	03.88	02.22	057	-----	---	---
FEV1/FVC (%)	79.02	75.25	095	-----	---	---
FEF25-75 (L/s)	04.00	02.28	057	-----	---	---
PEFR (L/s)	09.57	03.08	032	-----	---	---
FIVC (L)	-----	03.67	---	-----	---	---
FEV.5 (L)	-----	01.10	---	-----	---	---
FEV3 (L)	-----	02.93	---	-----	---	---
PIFR (L/s)	-----	01.19	---	-----	---	---
FEF75-85 (L/s)	-----	00.77	---	-----	---	---
FEF.2-1.2 (L/s)	-----	02.27	---	-----	---	---
FEF 25% (L/s)	-----	02.24	---	-----	---	---
FEF 50% (L/s)	04.99	02.98	060	-----	---	---
FEF 75% (L/s)	01.86	01.16	062	-----	---	---
FEV.5/FVC (%)	-----	37.29	---	-----	---	---
FEV3/FVC (%)	-----	99.32	---	-----	---	---
FET (Sec)	-----	03.22	---	-----	---	---
ExptTime (Sec)	-----	00.10	---	-----	---	---
Lung Age (Yrs)	034	049	144	-----	---	---
FEV6 (L)	04.91	-----	---	-----	---	---
FIF25% (L/s)	-----	01.02	---	-----	---	---
FIF50% (L/s)	-----	01.06	---	-----	---	---
FIF75% (L/s)	-----	01.03	---	-----	---	---



Doctor's Notes  
SPIROMETRY WITHIN NORMAL LIMITS

DR S B MUNDHE  
MBBS MD DCH AFPH



BPL-12

312

CARDIART

# MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010437/24020781/24014701

Fax: 24024068 /24023515

Website: <http://mpcb.gov.in>E-mail: [mpcb@vsnl.net](mailto:mpcb@vsnl.net)

Kalpatri Point, 2<sup>nd</sup> - 4<sup>th</sup> Floor,  
Opp. Cine Planet Cinema,  
Near Sion Circle, Sion (E)  
Mumbai - 400 022

Red/LSI

Date: 30/12/2016.

Consent No: Format 1.0/BO/CAC-CELL/EIC No. UAN No. 0000009532 /R/CAC-16/200/028

To,

M/s. NSL Sugar Ltd., Unit - III

(Formerly known as Jay Mahesh Sugar Industries Ltd.)

Gut No. 85/86, Pawarwadi,

Tal. Majalgaon, Dist. Beed.

**Subject :** Renewal of Consent to Operate of 7000 TCD Sugar & 30 MW Co-generation unit under RED category.

**Ref :** 1. Consent to operate granted by the Board vide no. BO/CAC-CELL/EIC/AD-17177-15/R/CAC-14594 dtd 19.11.2015.  
2. Minutes of CAC meeting held on 16.09.2016.

Your application: UAN No. 0000009532.

Dated: 02/07/2016.

For: Renewal of Consent to Operate of 7000 TCD Sugar & 30 MW Co-generation unit under RED category under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (M, H & T M) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. The consent is granted for a period from 01.08.2016 to 31.07.2017.
2. The actual total investment of the industry is Rs. 350.05 Cr.  
(As per C. A. Certificate submitted by industry)
3. The Consent is valid for the manufacture of -

Sr. No.	Product / By-Product Name	Maximum Quantity in MT/M
1	Sugar	23940
2	Molasses	9450
3	Pressmud	7350
4	Bagasse	58800
5	Electric Power (Cogeneration)	30 MW

(The cane crushing Capacity of Sugar Industry shall not exceed 7000 TCD)

4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1.	Trade effluent	581 (Sugar 311 + Co-gen 270)	As per Schedule -I	270 CMD 100% recycle & 311 CMD on land for irrigation
2.	Domestic effluent	30	As per Schedule -I	On land for irrigation



5. Conditions under Air (P& CP) Act, 1981 for air emissions:

Sr. no.	Description of stack / source	Number of Stack	Standards to be achieved
1.	Boilers (20 TPH; 20 TPH & 135 TPH)	1	As per Schedule - II
2.	DG Set 1250 KVA	1	As per Schedule - II
3.	DG Set 750 KVA	1	As per Schedule - II
4.	DG Set 625 KVA	1	As per Schedule - II
5.	DG Set 250 KVA	1	As per Schedule - II

6. Conditions under Hazardous & Other Wastes (M, H & T M) Rules, 2016 for treatment and disposal of hazardous waste:

Sr. No.	Type of Waste	Category	Quantity	UOM	Disposal
1	Used /Spent Oil	5.1	100	Litrs./M	Reuse in own boiler as fuel

7. Non-Hazardous Solid Wastes:

Sr. No.	Type of Waste	Quantity	UOM	Treatment	Disposal
1.	Fly/Boiler Ash	14.0	MT/D	-	Landfill/Sale to Bricks manufacturers and used for compost production.
2.	Sludge from waste water treatment	3.0	MT/D		Use as manure

8. This Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.

9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government agencies.

10. Industry shall operate online monitoring system which is installed as per the Directions of CPCB and shall connect/ upload the online monitoring data at MPCB and CPCB server.

For and on behalf of the  
Maharashtra Pollution Control Board

  
(Dr. P. Anbalagan, IAS)  
Member Secretary

Received Consent fee of -

Sr. No.	Amount (Rs.)	DR. No.	Date	Drawn On
1	Rs. 7,01,140/-	0180879	11.07.2016	SBI Bank
2	Rs. 15,000/-	112874	20.10.2016	SBI Bank

Copy to:

1. Regional Officer - MPCB Aurangabad - *He is directed to forfeit BG of Rs. 3 Lakh out of Rs. 10 Lakh submitted towards O & M of pollution control system is to be forfeited as JVS results are exceeding the Consented limit.*
2. Sub-Regional Officer - Jalna, MPCB, He is directed to ensure the compliance of the consent conditions.
3. Chief Accounts Officer, MPCB, Mumbai.
4. CC/CAC desk- for record & website updation purposes.

### Schedule-I

#### I) Terms & Conditions for compliance of Water Pollution Control

1) A] As per your application, you have provided Effluent Treatment Plant with design Capacity 1400 CMD.

B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr. No.	Parameters	Standards prescribed by Board
		Limiting Concentration in mg/l, except for pH
01	pH	5.5-9.0
02	Oil & Grease	10
03	BOD (3 days 27°C)	100
04	Sulphate	1000
05	Suspended Solids	100
06	COD	250
07	Chloride	600
08	Total Dissolved Solids	2100

C] The treated effluent 311 CMD generated from Sugar unit shall be disposed on land for irrigation on 153 acres of own land /as per the bilateral agreement with farmers. **In no any case treated/untreated effluent shall find its way outside the factory premises directly or indirectly.**

D] Trade effluent of 270 CMD generated from Co-gen shall be 100% recycle in process.

E] CREP conditions for Sugar Factory

- Operation of ETP shall be started at least one month before starting of cane crushing to achieve desired MLSS. So as to meet prescribed standards from day one the operation of mill.
- Waste water generation shall be maintained as 100 liters per ton of cane crushed.
- Industry shall achieve zero discharge into in land surface water bodies.
- 15 days storage capacity tank shall be provided for treated effluent to take care of no demand for irrigation.

F] Industry shall maintain properly the arrangement provided for covering the effluent collection system and to avoid the ingress of Bagasse other material.

G] **The unit shall operate ETP even after completion of the crushing season so that any effluent generated during washing & maintenance is discharged after proper treatment.**

H] **The unit shall optimize water use in industrial process & maintain records of water consumption & waste water generation.**

2) A] As per your consent application, for the 30 CMD sewage generation you have provided septic tank & soak pit for the treatment of sewage.

B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

- |     |                  |               |     |       |
|-----|------------------|---------------|-----|-------|
| (1) | Suspended Solids | Not to exceed | 100 | mg/l. |
| (2) | BOD 3 days 27°C  | Not to exceed | 100 | mg/l. |

C] The treated sewage shall be disposed on land for gardening/irrigation.

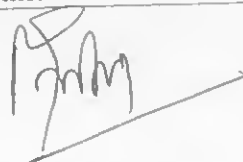


- 3) The industry shall have bilateral agreement with the farmers on whose land the treated effluent is used for irrigation purposes and a copy of the agreements with validity shall be submitted to the Regional/Sub- Regional Office of the Board.
- 4) The industry shall create Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
- 5) **CONDITIONS FOR MOLASSES STORAGE:**
  - (i) The molasses shall be properly collected and stored in steel tanks which shall be leak proof. At no stage of handling of molasses, there shall be leakage or spillage.
  - (ii) The capacity of tanks for storage of molasses shall be such that it will take care of bumper production of sugar, non-lifting of molasses etc.
  - (iii) All the area on which molasses are stored and handled should be provided with drain for diverting the spills to the treatment plant/ molasses tank. Suitable arrangements for accidental discharges of molasses from the tanks shall be provided to contain the same within factory premises.
  - (iv) Destruction of molasses and its disposal shall not be done without specific permission in writing from the authorized officer of the Board. Intimation of intention to destroy or dispose of the molasses shall be given to the Board atleast 15 (fifteen) days in advance by registered post under intimation to the Sub-Regional officer and Regional officer of the Board under whose jurisdiction the factory is situated.
  - (v) The storage tanks shall be kept in good conditions all the year round with adequate maintenance. The tanks size and capacity per cm, height, total capacity in tonnes shall be displayed prominently near/on the tank.
  - (vi) The above conditions shall be in addition to and not in derogation of the provisions contained in the "Bombay Molasses Rules, 1955" and "Maharashtra Molasses Storage and Supply Regulation, 1965".
- 6) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines if applicable.

**II) Conditions under Water (Prevention & Control of Pollution) CESS Act, 1977 as amended**

The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 and as amended, by installing water meters, filing water cess returns in Form-I and other provisions as contained in the said act.

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, boiler feed etc.,	260
2.	Domestic purpose	50
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	835
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	—



## Schedule-II

### Terms & conditions for compliance of Air Pollution Control

1. As per your application, you have provided the Air pollution control (APC) system and also erected following stack (s) to observe the following fuel pattern-

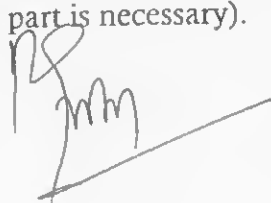
Sr. No.	Stack Attached to	APC System	Height in meter	Type of Fuel	Quantity	S %	SO <sub>2</sub> Kg/ D
1.	Boiler (135 TPH)	ESP	72	Bagasse	1449 MT/Day	0.2 %	5796
2.	Boiler (20 TPH) (Standby)						
3.	Boiler (20 TPH) (Standby)						
4.	DG Set 1250 KVA	Acoustic enclosure	7.0	HSD	2.0 KL/D	1 %	40.0
5.	DG Set 750 KVA	Acoustic enclosure	6.0	HSD	1.7 KL/D	1 %	34.0
6.	DG Set 625 KVA	Acoustic enclosure	5.0	HSD	1.4 KL/D	1 %	28.0
7.	DG Set 250 KVA	Acoustic enclosure	5.0	HSD	0.7 KL/D	1 %	14.0

2. The Applicant shall provide ESP/ Bag filter/ Wet scrubber to the Bagasse fired boiler and Dust Collector to Sugar bagging section as an Air Pollution control equipments OR as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance / CREP guidelines.

3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	150 mg/Nm <sup>3</sup>
--------------------	---------------	------------------------

4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).





**Schedule-III**  
**Details of Bank Guarantees**

**BG History**

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Amount of BG forfeited from the imposed BG	Purpose of BG forfeiture
1	C to R	Rs. 10.0 Lakh	Rs. 3.0 Lakh	• As JVS results of trade effluent are exceeding the Consented limits.

**NEW BG**

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
2	C to R	Rs. 7.0 Lakh	To be extended within 15 days	O & M for achieving consented standards of Effluent.	31.07.2017	30.11.2017
		Rs. 6.0 Lakh (Top-up of forfeited)	Within 15 days.	O & M for achieving consented standards of Stack emission,		

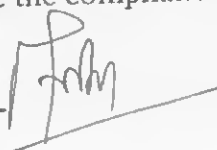
**Schedule-IV**  
**General Conditions**

- 1) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2) Industry should monitor effluent quality, stack emissions and ambient air quality monthly.
- 3) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 4) Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
- 5) The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 6) The firm shall submit to this office, the 30<sup>th</sup> day of September every year, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 7) The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the H&OW (MH&TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 8) The industry should comply with the Hazardous & Other Wastes (M, H & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous & Other Wastes (M, H & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30<sup>th</sup> June of every year.
- 9) An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 10) **The applicant shall make an application for renewal of the consent before the date of the expiry of the consent.**
- 11) Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website ([www.mpcb.gov.in](http://www.mpcb.gov.in)).
- 12) The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.
- 13) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- 14) Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 15) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- 16) Conditions for D.G. Set
  - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
  - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting

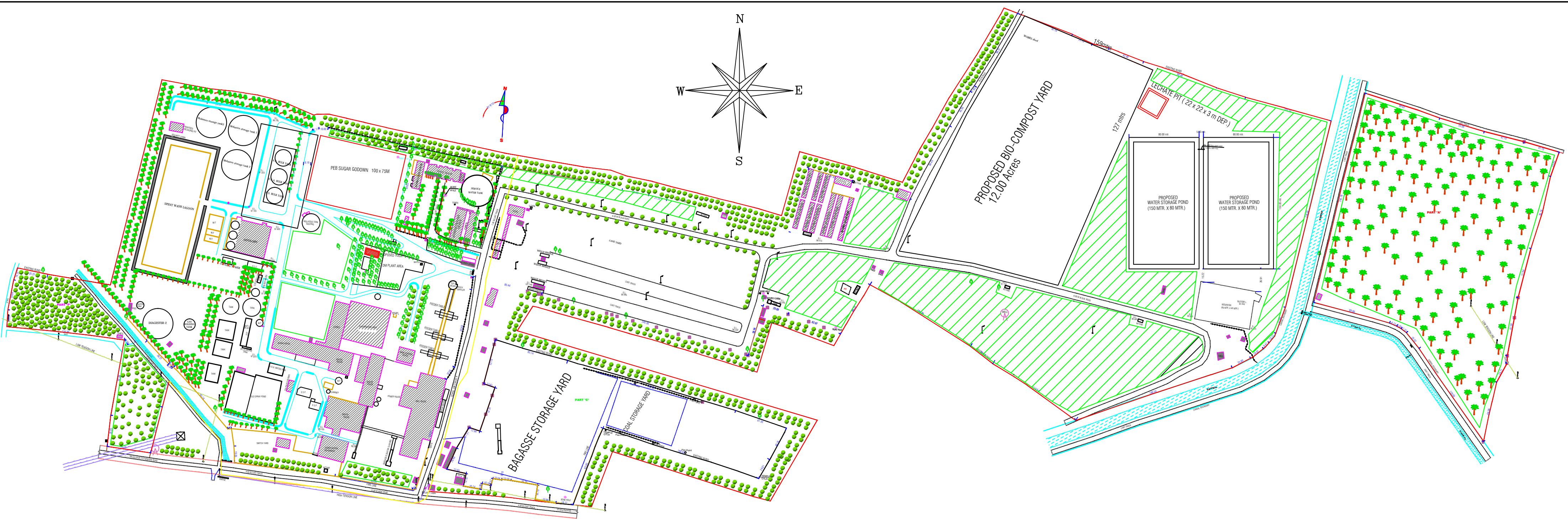



- the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
- c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
  - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
  - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
  - f) D.G. Set shall be operated only in case of power failure.
  - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
  - h) The applicant shall comply with the notification of MoEF dated 17.05.2002 regarding noise limit for generator sets run with diesel.
  - 17) The industry should not cause any nuisance in surrounding area.
  - 18) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
  - 19) The applicant shall maintain good housekeeping.
  - 20) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31<sup>st</sup> March of the year and number of trees planted by September end.
  - 21) The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
  - 22) The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
  - 23) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
  - 24) The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can download from MPCB official site).
  - 25) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
  - 26) The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dt. 16.11.2009 as amended.
  - 27) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
  - 28) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

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ANNEXURE -4



		NSL SUGARS LIMITED,UNIT-III, JAY MAHESH PAWARWADI, MAJALGAON,BEED DIST., MAHARASTRA		
UNITS	mm	DRAWN	<i>Draughtsman</i>	
SCALE	NTS	CHECKED		
DATE	12.08.2015	APPROVED		
Title				DRG.No. NSL-JMS-MH.- 0000
SITE PLAN				