F. No. J-11011/232/2012-IA II (I)
Government of India
Ministry of Environment, Forests and Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
Aliganj, jorbagh Road
New Delhi – 110 003

E-mail: aditya.narayan@nic.in
Tele fax: 011: 24695398
Dated: 18th March, 2015

To
Shri Siddhartha Tantia (Director)
M/s Tantia Agrochemicals Pvt. Ltd.
DD-30, Sector – I , Salt Lake Kolkata - 700064

Email : Stantia@tantiagroup.com ; Fax: 33 4019001

Subject : Grain based Distillery (90 KLPD) alongwith Cogeneration Power Plant (4 MW) at Khasara No. 212, Plot No. 2, Besides, NH 34, Village PaschimMateshpur District Uttar Dinajpur, West Bengal by M/s Tantia Agrochemicals Pvt. Ltd. – reg. EC

Sir,

The above proposal was considered and discussed in the 30th Reconstituted Expert Appraisal Committee (Industry) Meeting held during 22-23rd December, 2014. The Committee sought the following additional information:

i) Collect baseline data in respect of AAQM, Water Quality of surface water and ground water and Noise level for one month.

ii) Submit background data of AAQM.

iii) Market survey of availability of grain.

iv) legible copy of public hearing proceedings to be submitted.

v) Quantify steam requirement for MEE.

vi) Treatment scheme for Spentlees and MEE condensate.

vii) Water balance chart.

viii) Layout plan for proposed greenbelt.

The proposal was deferred till the desired information is submitted. It is, therefore, requested to kindly *submit the above mentioned information on top priority* to enable us to take further action in the matter.

An early action is requested.

Yours faithfully,

(A. N. Singh)
Jt. Director (S)

TANTIA
AGROCHEMICALS
Private Limited

CIN - U01122WB2008 PTC124898
ISO 9001 : 2008 & ISO 22000:2005
Certified Company
Govt. Recognized EXPORT HOUSE

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Registered Office :
25/27, Netaji Subhas Road,
Kolkata -700 001, INDIA
Tel: +91 33 2230 1896/6284

Ref: TAPL / Distillery / MOEF/01/15-16
Date: 06.05.2015

The Member Secretory
MoEF&CC
Indira Paryavaran Bhawan,
Jor Bagh Road, Aliganj,
New Delhi

Dear Sir,

Sub.: Environmental clearance for new 90 KLPD grain based distillery with 4 MW Cogeneration Power Plant at at Village Paschim Mateshpur District Uttar Dinajpur in the state of West Bengal.

Ref.: Minutes of 30th meeting of the Expert Appraisal Committee - Industry-2 held during 22nd -23rd December 2014. Item no 30.6

With the reference to the above we had given detailed project presentation on 23rd December 2014 at Ministry of Environment, Forests and Climate Change, New Delhi.

After presentation, the expert members wanted more details as described below.

1. **Collect baseline data in respect of AAQM, Water Quality of surface water and ground water and Noise level for one month.**

   The one month monitoring reports for the aboveenvironment parameters are attached as an **Annexure – I**

2. **Submit background data of AAQM.**

   Refer Annexure II for details.

3. **Market survey of availability of grain.**

   Report is attached herewith as an Annexure – III.

4. **Legible copy of public hearing proceedings to be submitted.**

   Copy is attached as an Annexure – IV

5. **Quantify steam requirement for MEE.**

   Refer Annexure – V.

Tantia Agrochemicals Pvt. Ltd. Kolkata-1

6. **Treatment scheme for Spentlees and MEE condensate.**

   Refer Annexure – VI for details.

7. **Water balance chart.**

   Water balance are attached here as an Annexure – VII

8. **Layout plan for proposed greenbelt.**

   Plan is attached at Annexure VIII.

Thanking you,

Yours faithfully,

For **Tantia Agrochemicals Pvt. Ltd.**

Director

Tantia Agrochemicals Pvt. Ltd. Kolkata-1

Encl: As above.

Annexure: 1

INTRODUCTION

Mantras Green Resources Limited. has entrusted **M/s. Mitra S. K. Private Limited**, **Kolkata** for environmental monitoring at Vill. – Paschim Maheshpur, Dalkhola, Dist. Uttar Dinajpur, West Bengal. The present report comprises of the Environmental Monitoring work covering the data of Ambient Air Quality, Noise Levels, Ground Water and Surface Water Quality during the period from 23/03/2015 to 19/04/2015.

Chapter: 2

Ambient Air Quality Monitoring

To quantify the impact of the proposed Project site activities on the ambient air, it is necessary at first to evaluate the existing ambient air quality of the environment. The existing ambient air quality, in terms of Particulate Matter $_{10}$ (PM_{10}), Particulate Matter $_{2.5}$ ($PM_{2.5}$), Sulphur dioxide (SO_2) and Nitrogen dioxide (NO_2), has been measured through a planned field monitoring.

Sampling Locations of Ambient Air Quality

Sl. No.	Sample Code	Location Name
1	AAQ-1	Director's Guest House, High School More, Dalkhola
2	AAQ-2	College More, Dalkhola
3	AAQ-3	Patnour Uttarpara
4	AAQ-4	Patnour Ghoshpara

Methodology of Sampling, Analysis and Equipment used

Sl. No.	Parameters	Instrument/ Apparatus used	Method followed	Reference	Detection Limit
1	Particulate Matter PM_{10} µm	Respirable Dust Sampler RDS, Balance	Gravimetric	IS:5182 (Part-23) : 2006	5 µg/m³
2	Particulate Matter $PM_{2.5}$ µm	Ambient Fine Dust Sampler Model PEM-ADS 2.5µ, Balance	Gravimetric	USEPA CFR-40, Part-50 Appendix L	2 µg/m³
3	Nitrogen Oxides (NO_2)	RDS with Impinger tubes, Spectrophotometer	Jacob and Hochheiser modified (Na-Arsenite) Method	IS-5182 (Part-6) : 2006	9 µg/m³
4	Sulphur di-Oxide (SO_2)	RDS with Impinger tubes, Spectrophotometer	Improved West & Gaeke method	IS-5182 (Part-2) : 2001	4 µg/m³

Equipment List for Air Sampling Analysis

Sl. No.	Instrument Used	Make	Range/Detection Limit
1	Respirable Dust Sampler (RDS)	Envirotech	Rotameter 0.3 to 3 lpm ± 2%
		Envirotech	Manometer 0.9 to 1.4 m^3/min ± 2%
2	Electronic Balance	Mettler Toledo	1 mg to 220 gm
3	Ambient Fine Dust Sampler	Polltech	16.7 lpm ± 10%
4	Spectro Photometer	Varian	190 to 1100 nm
5	GC-MS	Varian	50 to 650 m/z
6	GC	Chemito	0.5 ppm

AMBIENT AIR QUALITY MONITORING REPORT					
Location Name : Director's Guest House, High School More, Dalkhola					
Sample Code: AAQ-1					
SL. N0.	**Date of Monitoring**	**Concentration of Pollutants**			
		PM $_{10}$ ($\mu g/m^3$)	**PM $_{2.5}$ ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NO_2 ($\mu g/m^3$)**
1	23/24.03.2015	105	55	9.6	34.5
2	26/27.03.2015	95	58	5.5	25.5
3	31.03/01.04.2015	85	42	6.6	29.6
4	03/04.04.2015	105	55	5.6	37.5
5	07/08.04.2015	122	62	7.9	42.5
6	10/11.04.2015	102	56	10.5	49.6
7	13/14.04.2015	92	49	6.2	30.2
8	17/18.04.2015	88	40	4.5	26.6
Limit as per CPCB notification, New Delhi, 18th Nov, 2009 for Ambient air quality		**100**	**60**	**80**	**80**

AMBIENT AIR QUALITY MONITORING REPORT					
Location Name : College More, Dalkhola					
Sample Code: AAQ-2					
SL. N0.	**Date of Monitoring**	**Concentration of Pollutants**			
		PM $_{10}$ ($\mu g/m^3$)	**PM $_{2.5}$ ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NO_2 ($\mu g/m^3$)**
1	23/24.03.2015	105	56	8.0	30.2
2	26/27.03.2015	145	75	10.0	36.6
3	31.03/01.04.2015	95	48	6.6	45.5
4	03/04.04.2015	144	68	9.2	39.6
5	07/08.04.2015	158	79	5.5	30.2
6	10/11.04.2015	122	62	7.8	36.6
7	13/14.04.2015	96	45	6.6	26.6
8	17/18.04.2015	111	59	11.2	40.2
Limit as per CPCB notification, New Delhi, 18th Nov, 2009 for Ambient air quality		**100**	**60**	**80**	**80**

Dr. N. K. Kundu
Authorised Signatory

AMBIENT AIR QUALITY MONITORING REPORT					
Location Name : Patnour Uttarpara					
Sample Code: AAQ-3					
SL. N0.	**Date of Monitoring**	**Concentration of Pollutants**			
		PM_{10} ($\mu g/m^3$)	**$PM_{2.5}$ ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NO_2 ($\mu g/m^3$)**
1	25/26.03.2015	92	45	7.5	25.5
2	28/29.03.2015	85	42	5.6	41.2
3	30/31.03.2015	92	50	6.9	26.6
4	01/02.04.2015	69	39	7.2	35.5
5	08/09.04.2015	85	50	8.2	33.2
6	11/12.04.2015	75	40	7.5	28.6
7	15/16.04.2015	92	55	4.5	30.2
8	18/19.04.2015	77	46	5.6	25.5
Limit as per CPCB notification, New Delhi, 18th Nov, 2009 for Ambient air quality		**100**	**60**	**80**	**80**

AMBIENT AIR QUALITY MONITORING REPORT					
Location Name : Patnour Ghoshpara					
Sample Code: AAQ-4					
SL. N0.	**Date of Monitoring**	**Concentration of Pollutants**			
		PM_{10} ($\mu g/m^3$)	**$PM_{2.5}$ ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NO_2 ($\mu g/m^3$)**
1	25/26.03.2015	88	48	6.6	26.6
2	28/29.03.2015	92	55	7.5	38.5
3	30/31.03.2015	77	40	8.5	36.6
4	01/02.04.2015	86	48	5.6	20.5
5	08/09.04.2015	90	56	4.5	37.5
6	11/12.04.2015	76	40	6.9	30.2
7	15/16.04.2015	99	58	7.5	27.5
8	18/19.04.2015	75	40	8.2	37.5
Limit as per CPCB notification, New Delhi, 18th Nov, 2009 for Ambient air quality		**100**	**60**	**80**	**80**

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Authorised Signatory

PHOTOGRAPH OF AMBIENT AIR MONITORING

Location: Director's Guest House, High School More, Dalkhola **(AAQ-1)**

Location: College More, Dalkhola **(AAQ- 2)**

PHOTOGRAPH OF AMBIENT AIR MONITORING

Location : Patnour Uttarpara **(AAQ-3)**

Location : Patnour Ghoshpara **(AAQ-4)**

Chapter: 3

Noise Level Monitoring

In order to have an idea about the existing noise levels in the study area, noise monitoring has been carried out at six (6) locations.

Noise Methodology & Instrument Used:

Standard Method for the Examination of Noise, IS: 9876-1981(Reff-2001) is followed for analysis by using Sound Level.

Sl. No.	Instrument Used	Model	Make	Range/Detection Limit
1	Sound Level Meter	SLM-100	Envirotech	34 to 134 dB(A)
1	Sound Level Meter	4001	Lutron	35 to 134 dB(A)

Details of Noise Monitoring Stations

Station Code	Monitoring Location	Class
NQ-1	Patnour Ghoshpara	Residential Area
NQ-2	Patnour Uttarpara	Residential Area
NQ-3	Director's Guest House, High School More, Dalkhola	Residential Area
NQ-4	College More, Dalkhola	Commercial Area

NOISE MONITORING REPORT				
Location	**Patnour Ghoshpara**	**Patnour Uttarpara**	**Director's Guest House, High School More, Dalkhola**	**College More, Dalkhola**
Type of Area	Residential Area	Residential Area	Residential Area	Commercial Area
Station Code	NQ-1	NQ-2	NQ-3	NQ-4
Mountoring Data	24/25.03.2015	25/26.03.2015	26/27.03.2015	27/28.03.2015
Time (In Hrs.)	**Hourly Leq dB(A)**			
06.00-07.00	41.8	44.5	45.7	49.3
07.00-08.00	44.7	45.3	53.0	59.8
08.00-09.00	45.7	41.2	57.9	59.9
09.00-10.00	50.8	57.3	49.7	61.9
10.00-11.00	46.4	45.5	56.1	63.6
11.00-12.00	55.8	53.7	62.6	63.3
12.00-13.00	55.1	56.0	62.4	60.9
13.00-14.00	55.8	56.3	56.9	61.5
14.00-15.00	57.3	57.2	61.4	61.9
15.00-16.00	60.6	53.9	51.7	62.9
16.00-17.00	54.7	55.5	57.7	63.6
17.00-18.00	56.3	51.1	57.2	65.1
18.00-19.00	53.9	51.2	55.5	59.5
19.00-20.00	48.2	53.1	46.2	61.9
20.00-21.00	47.7	47.2	44.0	59.6
21.00-22.00	43.4	37.6	55.4	57.9
22.00-23.00	41.0	37.1	47.9	43.9
23.00-00.00	37.8	40.0	47.1	47.4
00.00-01.00	36.5	37.0	45.2	46.5
01.00-02.00	42.0	38.5	42.7	47.0
02.00-03.00	38.8	39.4	44.1	42.2
03.00-04.00	42.8	42.1	41.4	45.4
04.00-05.00	48.2	43.7	45.3	45.8
05.00-06.00	46.9	42.3	38.8	54.6
Results in Leq dB(A) Day Time	**54.1**	**53.2**	**57.4**	**61.7**
Limits in Leq dB(A) Day Time	**55**	**55**	**55**	**65**
Results in Leq dB(A) Night Time	**43.5**	**40.6**	**44.9**	**48.4**
Limits in Leq dB(A) Night Time	**45**	**45**	**45**	**55**
NOTE: Day Time: 06.00 Hr.-22.00 Hr. & Night Time: 22.00 Hr.-06.00 Hr.				

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PHOTOGRAPH OF NOISE MONITORING

Location: Patnour Ghoshpara **(NQ-1)**

Location: Patnour Uttarpara **(NQ-2)**

PHOTOGRAPH OF NOISE MONITORING

Location: Director's Guest House, High School More, Dalkhola **(NQ-3)**

Lcation: College More, Dalkhola **(NQ-4)**

Chapter: 5

WATER QUALITY

Sl. No.	Sampling Location	Source of Water	Date of Sampling
GW 1	Patnur Village	Hand Pump	24.03.2015
GW 2	Plant Guest House	Hand Pump	24.03.2015
GW 3	Dalkhola Guest House	Hand Pump	24.03.2015
SW 1	Up stream from Mohananda River (Purnea Village)	River water	24.03.2015
SW 2	Down stream from Mohananda River (Sudha Village)	River water	24.03.2015

Equipment List for water Sampling Analysis

Sl. No.	Instrument Used	Make	Range/Detection Limit
1	PH Meter	Tosheen Industries Pvt. Ltd.	0 to 14
2	Thermometer	---	-50^0C to $+400^0$C
3	Turbidity Meter	EI	200 to 1000 NTU
4	Spectro Photometer	Varian	190 to 1100 nm
5	Electronic Balance	Mettler Toledo	1 mg to 220 gm
6	Ion Selective Electrode Meter	Cyberscan	0.1 to 10.0 ppm
7	Flame Photometer	Lowrence & Mayo	0 to 100 ppm
8	BOD Incubator	ION	20^0C to 30^0C
9	Mercury Analyzer	ECIL	20 to 200 ng
10	AAS	GVC Avanta	185 to 700 nm
11	Conductivity Meter	Lawrence & Mayo	200 to 1000 µS/cm
12	Air Oven	C B C Power System	40^0C to 200^0C

METHODOLOGY OF WATER ANALYSIS				
Sl . No.	**Parameters**	**Test Method**	**Instrument used**	**Range/Detection Limit**
1	Temperature	IS 3025 Part-9 1984	---	-15
2	Turbidity	APHA 22nd Edition 2130B	Turbidity Meter	1
3	pH at 25° C	APHA 22nd Edition 4500-H+	PH Meter	1
4	Total Hardness (as $CaCO_3$)	APHA 22nd Edition 2340 C	---	2
5	Colour	APHA 22nd Edition 2120B	---	1
6	Alkalinity	APHA 22nd Edition 2320B	---	2
7	Iron (as Fe)	APHA 22nd Edition 3500 Fe	Spectrophotometer	0.05
8	Chloride (as Cl)	APHA 22nd Edition 4500Cl	---	2
9	Total Suspended Solids	APHA 22nd Edition2540D	Electronic Balance Air Oven	2.5
10	Total Dissolved Solids	APHA 22nd Edition,2540C	Electronic Balance Air Oven Muffle Fumes	2
11	Calcium (as Ca)	APHA 22nd Edition3500 Ca B	---	0.4
12	Copper (as Cu)	APHA 22nd Edition 3111B	AAS	0.02
13	Manganese (as Mn)	APHA 22nd Edition 3111B	AAS	0.02
14	Sulphate (as SO_4)	APHA 22nd Edition 4500SO_4	Spectrophotometer	1
15	Nitrate (as NO_3)	APHA 22nd Edition 4500NO_3-E	Spectrophotometer	0.4
16	Fluoride (as F)	APHA 22nd Edition4500F	Ion Selective Electrode Meter	0.1
17	Mercury (as Hg)	APHA 22nd Edition3112B	Mercury Analyzer	0.001
18	Cadmium (as Cd)	APHA 22nd Edition3111B	AAS	0.002
19	Arsenic (as As)	APHA 22nd Edition3550 As B	Spectrophotometer	0.01
20	Lead (as Pb)	APHA 22nd Edition3111B	AAS	0.005
21	Zinc (as Zn)	APHA 22nd Edition 3111B	AAS	0.02
22	Nickel as Ni	APHA 22nd Edition. 5540-C	AAS	---
23	Sodium	APHA 22nd Edition, 3500 Na B	Flame Photometer	1
24	Chromium as Cr	APHA 22nd Edition 3500 Cr	AAS	0.01
25	Oil & Grease	APHA 22nd Edition. 5520 B	Electronic Balance	1.4
26	Magnesium (as Mg)	APHA 22nd Edition3500 Mg B	---	0.24
27	Dissolved Oxygen (as DO)	APHA 22nd Edition4500-O-C	---	1
28	Biochemical Oxygen Demand (as BOD)	IS 3025 (Part 44), 1993	BOD Incubator	2
29	Chemical Oxygen Demand (as COD)	APHA 22nd Edition 5220B	----	4
30	Conductivity at 25°C	APHA 22nd Edition 2510B	Conductivity Meter	1
31	Total Coliform Organism	APHA,22nd Edition,2012 9221B Pg- 9-66	Autoclave	0-20 psi
			Bacteriological Incubator	30-80°C
			Laminar Air Flow	--
			Bio-safety Cabinet	--

ANALYSIS RESULT OF GROUND WATER					
Sl. No.	**Parameter**	**Unit**	**Patnur Village (GW-1)**	**Plant Guest House (GW-2)**	**Dalkhola Guest House (GW3)**
1	pH at 26^0C		6.3	6.33	6.2
2	Conductivity at 25^0C	us/cm	345	165	298
3	Temperature	^{O}C	21	22	20
4	Turbidity	NTU	<1.0	3.2	2.7
5	Colour	Hazen	<1.0	<1.0	<1.0
6	Alkalinity	mg/l	89.76	85.68	81.6
7	Dissolved Solids	mg/l	206	106	160.9
8	Suspended Solids	mg/l	<2.5	8.6	2.8
9	Oil & Grease	mg/l	<1.4	<1.4	<1.4
10	Dissolved Oxygen	mg/l	4.8	2.7	2.1
11	Chloride as Cl	mg/l	39.89	13.3	43.69
12	Total Hardness as $CaCO_3$	mg/l	80	64	108
13	Calcium as Ca	mg/l	16	14.4	22.4
14	Magnesium as Mg	mg/l	9.6	6.72	12.48
15	Sulphates as SO_4	mg/l	20.6	<1.0	10.07
16	Fluorides as F	mg/l	0.16	0.13	<0.1
17	Nitrates as NO_3	mg/l	31.53	<0.5	3.31
18	Iron as Fe	mg/l	<0.05	18.7	20.4
19	Copper as Cu	mg/l	<0.02	<0.02	<0.02
20	Mercury as Hg	mg/l	<0.001	<0.001	<0.001
21	Cadmium as Cd	mg/l	<0.001	<0.001	<0.001
22	Arsenic as As	mg/l	<0.01	<0.01	<0.01
23	Lead as Pb	mg/l	<0.005	<0.005	<0.005
24	Zinc as Zn	mg/l	<0.02	1.03	<0.02
25	Chromium as Cr	mg/l	<0.01	<0.01	0.09
26	Manganese as Mn	mg/l	<0.02	0.33	0.09
27	Nickel as Ni	mg/l	<0.02	<0.02	<0.02
28	Total Coliform	MPN/100 ml	25	4.5	25

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ANALYSIS RESULT OF SURFACE WATER				
Sl. No.	**Parameter**	**Unit**	**Up stream from Mohananda River (Purnea Village) (SW-1)**	**Down stream from Mohananda River (Sudha Village) (SW-2)**
1	pH at 26^0C		7.43	7.5
2	Conductivity at 25^0C	us/cm	98.2	154.2
3	Temperature	^{O}C	27	28
4	Turbidity	NTU	8.2	2.5
5	Colour	Hazen	<1.0	<1.0
6	Alkalinity	mg/l	48.96	87.52
7	Dissolved Solids	mg/l	77.2	96.8
8	Suspended Solids	mg/l	27	10.3
9	Oil & Grease	mg/l	<1.4	<1.4
10	Dissolved Oxygen	mg/l	6.8	7.77
11	Chloride as Cl	mg/l	19	11.4
12	Total Hardness as $CaCO_3$	mg/l	44	56
13	Calcium as Ca	mg/l	11.2	14.4
14	Magnesium as Mg	mg/l	3.84	4.8
15	Sulphates as SO_4	mg/l	6.39	<1.0
16	Fluorides as F	mg/l	0.13	0.19
17	Nitrates as NO_3	mg/l	0.72	<0.5
18	Iron as Fe	mg/l	2.18	0.21
19	Copper as Cu	mg/l	<0.02	<0.02
20	Mercury as Hg	mg/l	<0.001	<0.001
21	Cadmium as Cd	mg/l	<0.001	<0.001
22	Arsenic as As	mg/l	<0.01	<0.01
23	Lead as Pb	mg/l	<0.005	<0.005
24	Zinc as Zn	mg/l	<0.02	<0.02
25	Chromium as Cr	mg/l	<0.01	<0.01
26	Manganese as Mn	mg/l	<0.02	0.04
27	Nickel as Ni	mg/l	<0.01	<0.01
28	BOD	mg/l	<2.0	<2.0
29	COD	mg/l	4.1	8.13
30	Sodium	mg/l	7	24
31	Total Coliform	MPN/100 ml	1600	33

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PHOTOGRAPH OF GROUND WATER MONITORING

Location: Patnur Village (Hand Pump) **(GW-1)**

Location: Plant Guest House (Hand Pump) **(GW-2)**

Location: Dalkhola Guest House (Hand Pump) **(GW-3)**

PHOTOGRAPH OF SURFACE WATER MONITORING

Location: Up stream from Mohananda River (Purnea Village) **(SW-1)**

Location: Down stream from Mohananda River (Sudha Village) **(SW-2)**

Annexure-2

Background data for environment monitoring

METEOROLOGICAL MONITORING

Recording of meteorological parameters were done continuously during the period of Ambient Air Quality monitoring for one month. The Meteorological Station was kept free from obstruction to free flow of wind.

The parameters included:

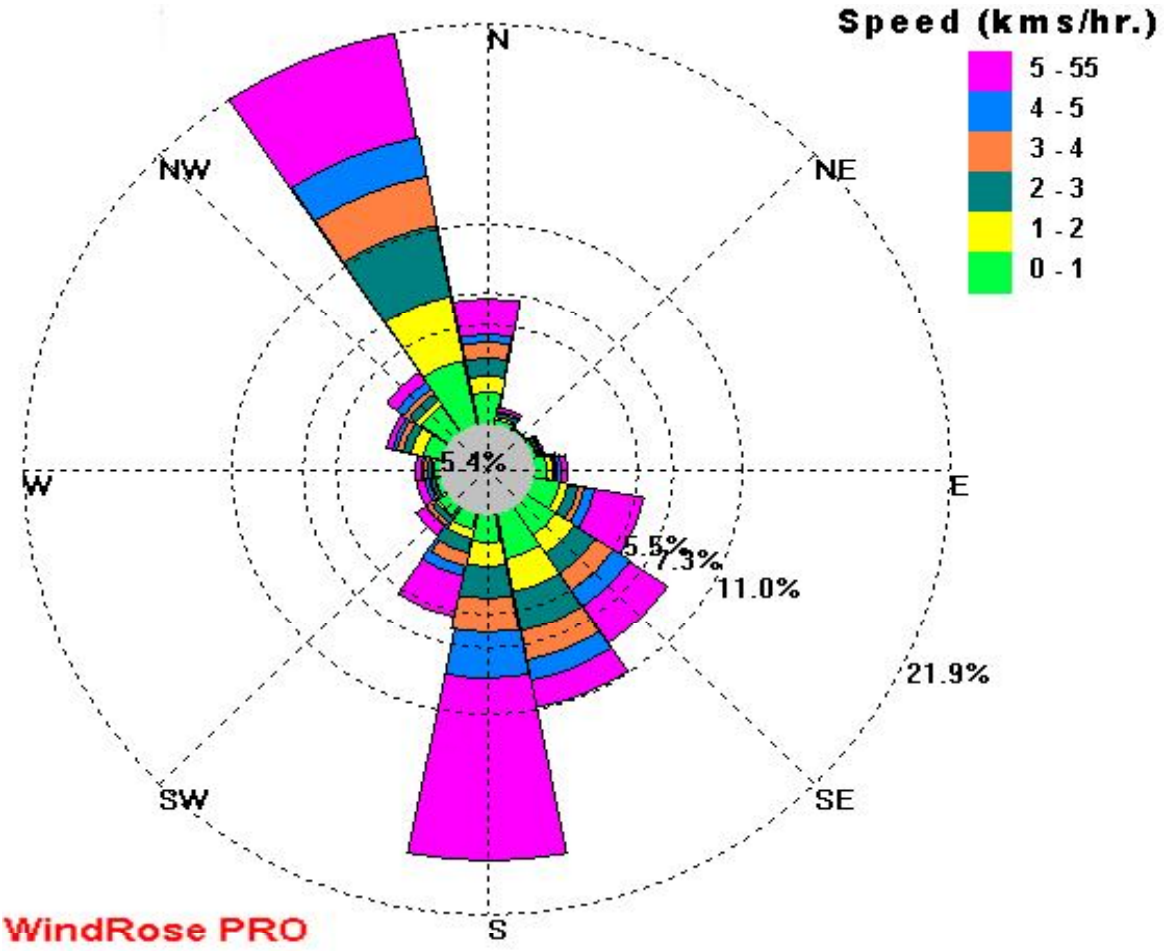
1. Wind speed, wind direction (in specific direction)
2. Relative Humidity
3. Temperature
4. Rain fall

Meteorological observation were done on hourly basis to measure the data of temperature, relative humidity, wind speed, wind direction cloud cover and rainfall by using continuous meteorological data collection instrument

Frequency Distribution of Wind Speed and Direction in Percent

(24 hours overall)

Wind Speed in	No. of Observation Frequency																	Total
	N	NE	NNE	ENE	E	ESE	SE	SSE	S	SSW	WSW	W	SW	WNW	NW	NNW	CLAM	
(km/hr)	0.0	22.5	45.0	67.0	90.0	112.5	135.0	157.0	180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5		
0.10- 1.00	1.77	0.33	0.19	0.28	0.65	1.49	1.86	2.52	1.54	0.93	0.65	0.37	0.37	1.03	1.82	3.68		**19.49**
1.00 - 2.00	0.93	0.14	0.09	0.09	0.37	0.42	1.21	1.91	1.35	0.47	0.14	0.05	0.09	0.65	0.28	3.54		**11.75**
2.00- 3.00	0.98	0.19	0.00	0.09	0.09	0.47	1.31	2.19	1.72	0.79	0.28	0.14	0.19	0.47	0.42	4.01	5.36	**13.33**
3.00 - 4.00	0.84	0.14	0.00	0.05	0.09	0.33	1.07	1.63	1.86	0.75	0.23	0.14	0.23	0.28	0.42	2.75		**10.82**
4.00- 5.00	0.47	0.00	0.00	0.05	0.19	0.56	1.12	1.03	2.47	0.61	0.09	0.23	0.14	0.23	0.37	2.19		**9.74**
5.00-55.00	1.91	0.19	0.00	0.14	0.33	2.70	2.38	1.59	9.98	2.33	0.56	0.37	0.28	0.37	0.65	5.73		**29.51**
CALM	**5.36**																	**94.64**
Total	**6.90**	**0.98**	**0.28**	**0.70**	**1.72**	**5.97**	**8.95**	**10.86**	**18.93**	**5.87**	**1.96**	**1.31**	**1.31**	**3.03**	**3.96**	**21.91**	**5.36**	**100.00**



WindRose PRO

Ambient Air Quality Monitoring

To quantify the impact of the proposed Project site activities on the ambient air, it is necessary at first to evaluate the existing ambient air quality of the environment. The existing ambient air quality, in terms of Particulate Matter $_{10}$ (PM_{10}), Particulate Matter $_{2.5}$ ($PM_{2.5}$), Sulphur dioxide (SO_2), Nitrogen dioxide (NO_2), Carbon Monoxide (CO) and Hydrocarbon as (Methane & Non-methane) has been measured through a planned field monitoring.

SAMPLING LOCATIONS OF AMBIENT AIR QUALITY

Sl. No.	Sample Code	Location Name
1	AAQ-1	Roof top of Direcor's Guest House, High School More,Dalkhola
2		A. Oham"s House, Patti Mill, Dalhkhola
3	AAQ-2	Roof top of Rabindra Dutta's House, College More, Dalkhola
4		Roof top of Palash Biswas House, College More, Dalkhola
5	AAQ-3	Roof top of Rambilas Poddar's House,Patnour
6		Roof top of Omprakash Ghosh's House,Patnour
7	AAQ-4	Roof top of A. Rahaman's House, Patnour

PHOTOGRAPH OF AMBIENT AIR MONITORING

Location Name : A. Oham"s House, Patti Mill, Dalhkhola , AAQ-1

Location Name : Roof top of Palash Biswas House, College More, Dalkhola AAQ- 2

PHOTOGRAPH OF AMBIENT AIR MONITORING

Location Name : Roof top of Omprakash Ghosh's House, Patnour AAQ-3

Location Name : Roof top of A. Rahaman's House, Patnour AAQ-4

Details of Noise Monitoring Stations

Station Code	Monitoring Location	Class
NQ-1	Village - Patnour	Residential
NQ-2	Dalkhola (Flour Mill)	Industrial
NQ-3	Dalkhola Primary Health Centre	Sensitive
NQ-4	Primary School Rahatpur	Sensitive
NQ-5	Dalkhola Bazar	Commercial
NQ-6	Dalkhola Guest House	Residential

Location: Village – Patnour N-1

Location : Primary School Rahatpur, N-4

Lcation : Dalkhola Guest House N-6

WATER QUALITY

SL. NO.	SAMPLING LOCATION	TYPE OF WATER	DATE OF SAMPLING
GW 1	Plant Guest House	Hand Pump	20.05.13
GW 2	Patnour Village	Hand Pump	20.05.13
GW 3	Dalkhola Guest House	Hand Pump	20.05.13
SW 1	Upstream From Mohananda Bridge	River water	20.05.13
SW 2	1 Km Down Stream From Mahananda Bridge	River water	20.05.13

SOIL QUALITY

Soil samples were collected from the following areas to get soil quality status of the area.

SAMPLING LOCATIONS OF SOIL SAMPLES

Sl. No.	Sampling Location	Date of Sampling
SQ-1	TANTIA AGRO CHEMICALS (P) LTD. (PLANT)	06.04.2013
SQ- 2	VILLAGE - PATNOUR	06.04.2013
SQ- 3	UTTAR DALKHOLA,	06.04.2013
SQ- 4	VILLAGE DOO-MOHONA (NEAR SUDANI RIVER)	06.04.2013
SQ- 5	VILLAGE - DAKHIN MOHAMMADPUR	06.04.2013

GRAIN AVAILABILITY REPORT

FOR

TANTIA AGROCHEM PVT.LTD.

PROPOSED 90 KLPD GRAIN BASED DSITLLERY

AT

VILLAGE: PASCHIM MAHESHPUR

TAL: DALKHOLA

DIST: UTTAR DINAJPUR

WEST BENGAL

GRAIN AVAILABILITY REPORT

Introduction

Tantia Agrochemical Pvt. Ltd. hereafter being referred as TAPL for sake of brevity is a part of **well known Tantia group recognized for their contribution in infrastructural projects in the state of West Bengal. TAPL, one of the group unit, is** engaged in the extraction of starch from maize and also producing glucose, gluten, germ, fiber as other byproducts.

TAPL unit is located at Post-Dalkhola, Village Paschim Maheshpur on NH-34, Opp-Bhuri Petrol Pump, Dalkhola - 733201 Dist- Uttar Dinjapur, West Bengal. Here company untakes production of starch from maize.

In the reserved plot of existing industry, TAPL proposes to install a grain based distillery of capacity 90 KLPD. The plant will be self sufficient in its requirement of electrical power. It will have unit for cogeneration of steam and electric power.

The plant is planned to be located in the region of West Bengal where maize and rice are grown in large quantities. These are the major raw materials for proposed distillery project. Neighboring state of Bihar also produces maize and rice in large quantity. There exist several rice processing mills in the surrounding area hence adequate quantity of broken rice for distillery and rice husk to be used as fuel in the husk fired boiler.

Hence this will truly be a green field project using material generated in agricultural produce. So, the plant will have the advantage of getting required raw material at reasonable costs and the fuel used shall be from renewable source.

To produced alcohol @90 KLPD from grains, an estimated amount of 224 MT/day will be needed. Normally maize, broken rice will be used as raw material. In addition 210 MT/day rice husk will be needed for rice husk fired boiler to produce steam and electricity for plant use.

The days of operation of the plant are estimated as 330 days. Hence there is annual requirement of grains as 224 MT/day X 330 days = 73920 MT and rice husk @ 210 MT/day X 330 days = 69,300 MT every year.

Annexure-3
Grain availability report

This reports studies availability of grains and rice husk from nearby districts of West Bengal and the state of Bihar.

Location:

The proposed unit of TAPL is expected to come up at Khasara no. 212 Dag no -2 Besides NH-34, - in village Paschim Maheshpur Other details of location are as under:

Sr. No	Landmark	Details
1.	Height above MSL	23 M
2.	Nearest highway	NH 34 connecting Dumdum in north Kolkata to Dalkhola
3.	Nearest town /railway station	Dalkhola 5 km
4.	Nearest Air port	Balurghat 150 km distant Bagdogra 100 km distant
5.	Nearest river	Sudhani 5 km
6.	Nearest forest/sanctuary	Raiganj Bird sanctuary 45 km away
7.	Nearest major industry	Flour mill in Dalkhola.
8.	Nearest distilleries	No distilleries in Uttar Dinjapur
9.	Longitude	25^{0} 51' N
10.	Latitudes	87^{0} 52' E
11.	State boundary	6 km Bihar
12.	International boundary	16 km Bangladesh

As Bihar is the neighboring state with large quantity of maize an rice production and west Bengal is the host estate, these two have been considered for raw material availability to operate grain based distillery.

Bihar:

Bihar is a state situated in Eastern part of India It is the 13th largest state in terms of geographical size of 98,940 km^2 and 3rd largest by population. It is also the fastest growing state now.

It is bounded by Uttar Pradesh to its west, Nepal to the north, the northern part of West Bengal to the east, and by Jharkhand to the south. The Bihar plain is divided into two parts by the river Ganga which flows from west to east. Southern Bihar was separated from Bihar to form the new state of Jharkhand.

Close to 85% of the population lives in villages.

Annexure-3
Grain availability report

Agriculture in Bihar:

Bihar lies in the riverine plain of the Ganga basin area and is endowed with fertile Gangetic alluvial soil with abundant water resources, particularly ground water resources. This makes Bihar's agriculture rich and diverse, although it has never reached its full potential. Rice, wheat, and maize are the major cereal crops of Bihar, while arhar urad, moong, gram, peas, lentils, and khesaria are some of the pulses crop cultivated in Bihar.

Bihar is the largest producer of vegetables, especially potatoes, onions, brinjal, and cauliflower. Sugarcane and jute are the other two major cash crops of Bihar.

Annexure-3
Grain availability report

Area, Production & Yield of Rice during year 2010-11

Sl.No.	Name of Districts	Autumn (Bhadai) Rice			Aghani Rice			Summer Rice			Total rice		
		Area (ha.)	Production (M.T.)	Yield (kg/ha)	Area (ha.)	Production (M.T.)	Yield (kg/ha)	Area (ha.)	Production (M.T.)	Yield (kg/ha)	Area (ha.)	Production (M.T.)	Yield (kg/ha)
1	Patna	67	69	1030	47600	61184	1285	0	0	0	47667	61253	1285
2	Nalanda	0	0	0	08335	74082	1084	80	175	1944	08425	74257	1085
3	Bhojpur	482	432	896	105877	215955	2040	19	36	1895	106378	216423	2034
4	Buxer	0	0	0	54724	95829	1751	0	0	0	54724	95829	1751
5	Rohtash	107	105	981	173199	286390	1654	20	39	1900	173326	286533	1653
6	Bhabhua	213	221	1038	94628	171037	1807	0	0	0	94841	171258	1806
7	Gaya	28	27	964	49819	53247	1001	15	28	1867	49862	53302	1001
8	Jahanabad	0	0	0	11502	15067	1310	0	0	0	11502	15067	1310
9	Arwal	0	0	0	26707	46040	1786	0	0	0	26707	46040	1786
10	Nawada	0	0	0	44412	45968	1035	0	0	0	44412	45968	1035
11	Aurangabad	0	0	0	125655	178033	1417	0	0	0	125655	178033	1417
12	Saran	5872	6406	1091	65124	82372	1265	288	555	1941	71283	89333	1253
13	Siwan	21982	17101	778	65039	61884	943	0	0	0	87021	78985	901
14	Gopalgunj	62232	62838	1008	28328	21462	915	0	0	0	99560	84090	940
15	Muzaffarpur	10857	11821	701	109038	48254	468	260	439	1688	120155	60514	504
16	E.Champaran	72857	45388	624	59407	36874	620	116	196	1690	132270	82438	623
17	W.Champaran	33623	38155	1135	93306	117436	1259	2447	4320	1765	129376	159911	1236
18	Sitamarhi	27152	13523	498	80271	24185	301	0	20	2222	107132	37738	351
19	Sheohar	7514	3795	505	20213	3844	190	0	0	0	27727	7639	276
20	Vaishali	4850	2590	557	33233	22877	692	157	265	1690	38040	25532	671
21	Darbhanga	32930	32890	999	42986	38326	892	2317	3819	1648	78233	75035	959
22	Madhubani	42514	20000	059	135048	69524	515	2091	3811	1823	179051	101338	564
23	Samastipur	35239	24729	702	52302	21553	412	893	773	866	88434	47055	532
24	Begusarai	10512	4903	466	18175	5027	277	1070	2002	1927	29757	11982	403
25	Munger	0	0	0	25936	11615	448	89	170	1910	26025	11785	453
26	Sheikhpura	0	0	0	8850	4205	475	0	0	0	8850	4205	475
27	Lakhisarai	0	0	0	3483	1545	444	0	0	0	3483	1545	444
28	Jamui	24	25	1042	35742	14950	418	0	0	0	35766	14975	419
29	Bhagalpur	1185	1035	873	29266	27793	950	322	610	1022	30773	29447	957
30	Banka	0	0	0	80170	159926	1995	0	0	0	80170	159926	1995
31	Saharsa	21583	28162	1306	69140	87721	001	2816	4710	1901	02319	100508	1000
32	Supaul	22177	31279	1410	62055	70708	1139	6196	12124	195/	90428	114111	1262
33	Madhepura	16993	10060	1110	59202	41664	704	475	037	1782	76670	61369	000
34	Purnia	15293	24455	1599	66641	73480	1103	10256	19056	1858	92190	116991	1269
35	Araria	20215	25781	1274	97335	96482	991	13079	25003	1958	130629	147850	1132
36	Kisanganj	2356	1239	526	63423	56438	890	12618	24030	1904	78397	81707	1042
37	Katihar	11293	12850	1138	54080	77074	1409	28950	59200	2045	94935	149130	1571
38	Khagaria	9487	7594	800	15034	5670	377	73	138	1890	24594	13402	545
	Total	495218	444042	897	2265685	2505544	1106	84465	163030	1930	2845368	3112616	1094

Source:- Directorate of Statistics and Evaluation

Annexure-3

Grain availability report

Area, Production, and Yield of Maize during 2010-11													
Sl.No.	Name of Districts	Autumun Maize			Rabi Maize			Summer Maize			Total Maize		
		Area (ha.)	Production (M.T.)	Yield (kg/ha.)	Area (ha.)	Production (M.T.)	Yield (kg/ha.)	Area (ha.)	Production (M.T.)	Yield (kg/ha.)	Area (ha.)	Production (M.T.)	Yield (kg/ha.)
1	Patna	5515	4540	823	398	1193	2997	1195	4844	4054	7108	10577	1488
2	Nalanda	4070	5316	1306	942	2824	2998	2347	9138	3893	7359	17278	2348
3	Bhojpur	3973	9703	2442	71	213	3000	884	3566	4034	4928	13482	2736
4	Buxar	1847	2749	1488	3	9	3000	29	116	4000	1879	2874	1530
5	Rohtas	178	277	1556	0	0	0	3	12	0	181	289	1597
6	Bhabhua(Kaimur)	225	252	1120	0	0	0	0	0	0	225	252	1120
7	Gaya	2863	6080	2124	173	671	3879	508	2140	4213	3544	8891	2509
8	Jahanabad	518	938	1811	51	198	3882	197	769	3904	766	1905	2487
9	Arwal	325	587	1806	282	1094	3879	168	671	3994	775	2352	3035
10	Nawada	1424	1587	1114	40	155	3875	952	3935	4133	2416	5677	2350
11	Aurangabad	275	480	1745	0	0	0	9	36	0	284	516	1817
12	Saran	17483	25111	1436	5388	13917	2583	5563	15473	2781	28434	54501	1917
13	Siwan	12324	21913	1778	4892	10474	2141	3868	10633	2749	21084	43020	2040
14	Gopalganj	8468	4286	506	5964	29331	4918	1934	5699	2947	16366	39316	2402
15	Muzaffarpur	1977	2716	1374	19445	51918	2670	7741	20329	2626	29163	74963	2570
16	E.Champaran	7024	6076	865	3996	13187	3300	4846	13880	2864	15866	33143	2089
17	W.Champaran	2036	2956	1452	5175	16306	3151	3949	11683	2958	11160	30945	2773
18	Sitamarhi	715	811	1134	976	6169	6321	3112	8888	2856	4803	15868	3304
19	Sheohar	222	475	0	681	2448	3595	195	822	4215	1098	3745	3411
20	Vaishali	14802	29374	1984	6833	15515	2339	11235	30858	2747	32870	75747	2319
21	Darbhanga	2407	5122	2128	15746	47269	3002	2353	10476	4452	20506	62867	3066
22	Madhubani	307	540	1759	744	3299	4434	545	2452	4499	1596	6291	3942
23	Samastipur	11869	20968	1767	28564	149180	5223	12351	56046	4538	52784	226194	4285
24	Begusarai	37501	69047	1841	16654	59455	3570	2944	9051	3074	57099	137553	2409
25	Munger	3318	4554	1373	896	1458	1627	1499	3787	2526	5713	9799	1715
26	Sheikhpura	257	290	1128	135	567	4200	50	193	3860	442	1050	2376
27	Lakhisarai	2709	5078	1874	0	0	0	5	11	0	2714	5089	1875
28	Jamui	2746	7008	2552	20	84	4200	34	79	2324	2800	7171	2561
29	Khagaria	16310	30374	1862	32643	149864	4591	6782	21639	3191	55735	201877	3622
30	Bhagalpur	20751	47041	2267	12613	61060	4841	6103	29759	4876	39467	137860	3493
31	Banka	7036	17091	2429	980	2879	2938	3258	15645	4802	11274	35615	3159
32	Saharsa	9710	34346	3537	13183	63595	4824	23196	148595	6406	46089	246536	5349
33	Supaul	1761	4458	2532	3139	14063	4480	7406	42040	5676	12306	60561	4921
34	Madhepura	6885	12644	1836	13753	49194	3577	21556	67764	3144	42194	129602	3072
35	Purnia	10276	34313	3339	11530	19128	1659	16307	40963	2512	38113	94404	2477
36	Kishanganj	483	1657	3431	747	1312	1756	1515	5370	3545	2745	8339	3038
37	Araria	3646	12875	3531	6808	44177	6489	10025	52599	5247	20479	109651	5354
38	Katihar	10230	34885	3410	24458	90079	3683	16849	67432	4002	51537	192396	3733
Total		234466	468518	1998	237723	922285	3880	181513	717393	3952	653702	2108196	3225
									Source:- Directorate of Statistics & Evaluation				

West Bengal:

West Bengal is a state in East India and is the nation's fourth-most populous state, with over 91 million inhabitants. Spread over 88,750 km^2, it is bordered by the countries of Bangladesh, Nepal and Bhutan, and the Indian states of Odisha, Jharkhand, Bihar, Sikkim, and Assam. The state capital is Kolkata. Together with the neighboring nation of Bangladesh and parts of the state of Tripura, it makes up the ethno-linguistic region of Bengal.

Uttar Dinajpur district was from 1992 by bifurcation of the erstwhile West Dinajpur district. It was included in the Jalpaiguri Division of the State. As the district is basically agrarian, most of the people depend directly or indirectly on agriculture. Uttar Dinajpur district with an area of 3140 sq. km. is bounded by Darjeeling district in the North, Purnea district of Bihar State in the West, Malda and Dakshin Dinajpur district in the South and Bangladesh in the east. .

Total production of Rice in Uttar Dinajpur

Sr. No.	Crop	Kharif	Rabi	Summer	Total production
1	Rice	205.47	-	72.8	278.27
2	Maize	-	29.4	28.41	57.81

Source: **Agriculture Contingency Plan for District: Uttar Dinajpur (2009-10)**

Dakshin Dinajpur, the newly born district of Dakshin Dinajpur came into existence from 1992 when the erstwhile district of West Dinajpur was bifurcated to form; Dakshin Dinajpur with its headquarters at Balurghat. Dakshin Dinajpur spreads across 2162 Sq. Kms of land. It lies cushioned between Bangladesh on its east and south and Uttar Dinajpur on its north.

Total production of Rice and Maize in Dakshin Dinajpur

Sr. No.	Crop	Kharif	Rabi	Summer	Total production
1	Rice	163.14	10.32	66.835	240.295
2	Maize	-	-	-	-

Source: **Agriculture Contingency Plan for District: Dakshin Dinajpur (2008-09)**

Malda district is a district in West Bengal, India. It lies 347 km north of Kolkata, the state capital. Mango, jute and silk are the most notable products of this district. The special variety of mango produced in this region, popularly known by the name of the district, is exported across the world and is acclaimed internationally.

In Malda district, almost 92.6% of population lives in rural areas. About 51.55% of workforce is engaged in agriculture sector. The soil type and climate of the district are suitable for both horticulture and agriculture crops. The major crops in the district consist of Rice, Pulses, oilseeds, etc. As on 2006-07, the total food grain production in the district was 6, 58,000 MT, of

which, the total rice production consisted of 6, 35,500 MT while the total pulses produced were 22,500 MT.

Total production of Rice and Maize in Malda

Sr. No.	Crop	Kharif	Rabi	Summer	Total production
1	Rice	135.210	59.980	3.102	198.292
2	Maize	4.525	-	-	4.525

Source: **Agriculture Contingency Plan for District: Malda (2010-11)**

Dalkhola was originally in the state of Bihar in India. After 1959, Dalkhola was located in the state of West Bengal. The town expanded around the Dalkhola village Panchayats and developed into an important centre for trade and commerce due to mainstream connection with both Railway and Roadway. It is an important center for commodities like jute, corn and oil trade in Uttar Dinajpur. It is also an important center for the trade of maize, which is produced in the neighboring state of Bihar. Dalkhola is the largest exporter of Maize in West Bengal. In Dalkhola, a national level Power Grid was established in 1973, which expanded the availability of electricity to the Municipality. Other developments include a Flour Mill, and maize processing company which use the crops produced by local farmers.

Total Rice and Maize production in Bihar

Sr. No.	Location	Rice (MT)	Maize(MT)
1	Bihar	3112616	2108196
Total		**3112616**	**2108196**

Total Rice and Maize production in West Bengal

Sr. No.	Location	Rice (MT)	Maize(MT)
2	Uttar Dinajpur	278	193795
3	Dakshin Dinajpur	662.084	58.893
4	Malda	712717	50015
Total		**713657.084**	**243868.893**

To produce alcohol @ 90 KLPD from maize, an estimated amount of 224 MT/day will be needed. In addition 210 MT/day rice husk or broken rice will be needed for rice husk fired boiler to produce steam and electricity for plant use. The 330 days of operation of the plant there is annual requirement of grains as 224 MT/day X 330 days = 73920 MT and rice husk @ 210 MT/day X 330 days = 69,300 MT every year.

Annexure-3
Grain availability report

The grain availability report shows that the total estimated production of rice and maize in Bihar is found to be 3112616 MT and 2108196 MT respectively.

The total estimated production of rice and maize from Uttar Dinajpur, Dakshin Dinajpur and Malda district of West Bengal is found to be 713657.084 MT and 243868.893 MT respectively.

Grain availability only maize and rice in MT/year		
	Maize	**Rice**
State of Bihar	2108196	3112616
State of West Bengal	243868	713657
Total	**2352064**	**3826273**
Percentage estimated availability for plant use	117603 @ 5%	76525 @2%
Actual requirement	**73920**	**69300**
Requirement percentage of total production in state of Bihar and three districts of west Bangal	3%	1.8%

Projected increase in 2013-14

Conclusion:

The above estimates have been worked out based on 2010-2011 data.

The values taken are from state of Bihar and only three districts of West Bengal.

Availability of maize and rice husk is #% and 1.8% 0of total production.

Hence plant is assured of grain and rice husk availability for its operation throughout the year.

ANNEXURE - II

PROCEEDINGS OF THE PUBLIC HEARING FOR THE PROPOSED GRAIN BASED DISTILLERY (CAPACITY-90 KLD) ALONG WITH COGENERATION POWER PLANT (4 MW) AT VILLAGE-PASCHIM MAHESPUR ON N.H-34, P.O - DALKHOLA, DISTRICT-UTTAR DINAJPUR, WEST BENGAL, PROPOSED BY M/S TANTIA AGROCHEMICALS PRIVATE LIMITED, HELD ON 23.07.2014 AT 12:00 HR AT THE AUDITORIUM "NAJRUL RABINDRA SUKANTA MANCHA"(TOWN HALL), OLD DALKHOLA MUNICIPALITY, N.H-34, NEAR DALKHOLA HIGH SCHOOL PARA, P.O-DALKHOLA, PS-KARANDIGHI, DISTRICT-UTTAR DINAJPUR,PIN-733201, WEST BENGAL.

M/s Tantia Agrochemicals Pvt. Ltd. submitted an application to the West Bengal Pollution Control Board for conducting a Public Hearing for the grain based distillery (capacity-90 KLD) along with Cogeneration Power Plant (4 MW) at Village-Paschim Mahespur on N.H-34, P.O - Dalkhola, District-Uttar Dinajpur, West Bengal. As per the EIA Notification S.O. 1533 dated 14th September, 2006 of the MoEF, Govt. of India, Environmental Clearance of the said project is required to be obtained from the MoEF, Govt. of India after conducting the Public Hearing.

Accordingly, West Bengal Pollution Control Board after observing all formalities, held the Public Hearing on 23.07.2014 at 12.00 Noon at the Auditorium "Najrul Rabindra Sukanta Mancha"(Town Hall), Old Dalkhola Municipality, N.H-34, near Dalkhola High School Para, P.O-Dalkhola, P.S-Karandighi, District-Uttar Dinajpur,pin-733201, West Bengal. Sri L.N Sherpa, Additional District Magistrate (LR), Uttar Dinajpur, presided over the hearing. List of the panel members and the others present in the public hearing is enclosed.

The hearing started with a welcome note from Sri D. Sarkar, Sr. Environmental Engineer, WBPCB. He briefed the audience about the modalities of Public Hearing, which is part of Public Consultation process under EIA Notification, 2006 and its subsequent amendments and also informed the audience about the draft proposal of M/s Tantia Agrochemicals Pvt. Ltd for the proposed Grain based Distillery (capacity-90 KLD) along with Cogeneration Power Plant (4 MW). He then requested Sri L.N Sherpa, Additional District Magistrate (L.R), Uttar Dinajpur to preside over the public hearing.

Sri L.N Sherpa, Additional District Magistrate (L.R), Uttar Dinajpur and Chairman of the meeting, welcomed the audience and requested the Project Proponent (PP) to explain in details about the proposed project in local language for discussion among the panel members and others present in the hearing.

Representative of M/s. Mantras Green Resources Ltd. environmental consultant on behalf of the Project Proponent, M/s Tantia Agrochemicals Pvt. Ltd, narrated about the details of proposed Grain based Distillery (capacity-90 KLD) along with Cogeneration Power Plant (4 MW) including the proposed pollution control devices through Power Point presentation emphasizing on the likely environmental impacts arising out of the proposed activity as well as the proposed mitigation measures to be adopted by them.

He mentioned that proposed project will comes within the existing plant premises of area and no additional

land will be required for the proposed project. He highlighted that properly designed ESP with adequate stack will be provided as air pollution control device for the proposed rice husk/coal fired boiler of capacity 24 TPH. Ash generated from the boiler will be used for brick manufacturing and land filling. Effluent generated from the process will be treated in adequately designed effluent treatment plant and treated waste water will be reused. No treated wastewater will be discharged outside the plant premises and the proponent will maintain 'Zero discharge'. The proponent also mentioned that spent wash generated from the process will be converted to DDGS (Distillers dried grain & solubles) which will be used as cattle feed. Baseline study of the ambient air quality reveals that ambient air quality is within the permissible limit. He also informed that the as the major raw material of the proposed industry is maize, it will develop local agricultural sector and also give high revenue to the State Government. He has also mentioned that proposed project would generate employment for 105 nos. of local people.

Sri L.N Sherpa, Additional District Magistrate (L.R), Uttar Dinajpur requested the audience to raise their questions and/or opinions, if any.

During the discussion the panel members and the others present in the public hearing made queries / suggestions with respect to the proposed project, which are noted below:

Sri Sanjay Sarkar of Ward no.-6, Dalkhola Municipality, welcomed the proposed project with all the commitments made by the Project Proponent during their presentation and requested to describe employment opportunity in details.

Sri L.N Sherpa, Additional District Magistrate (L.R), Uttar Dinajpur expressed his apprehension regarding the measures taken for control of noise, odour and waste water pollution from the proposed project and which was also stated by the Chairman, Dalkhola Municipality.

Representative of M/s. Mantras Green Resources Ltd, environmental consultant on behalf of the Project Proponent, M/s Tantia Agrochemicals Pvt. Ltd. appreciated the issues expressed by audience and Chairman of the meeting. He stated that odour problem will be less as the distillery is grain based. He also mentioned that project proponent will take necessary measures to reduce noise pollution and assured that they will maintain permissible limits for noise pollution. He also stated that effluent generated from the process will be treated in adequately designed effluent treatment plant and treated waste water will be reused. No treated wastewater will be discharged outside the plant premises and the proponent will maintain 'Zero discharge'. He also mentioned that DDGS (Dried Distillers Grains with Solubles), which is a coproduct of the distillery, will be used as cattle feed. He also committed that necessary abatement measures will be adopted to control air and water pollution from the proposed industry. He also committed that local people will be given preferences for employment.

Sri Subhas Goswami, Chairman, Dalkhola Municipality mentioned that existing starch production factory of the project proponent is creating water pollution as well as odour problem. He also mentioned that adjoining agricultural land has been damaged due to water pollution from the existing industry and odour problem is creating nuisance in the locality. He requested to the West Bengal Pollution Control Board to take necessary action in this regard.

Representative of the project proponent, M/s Tantia Agrochemicals Pvt. Ltd. informed that highly efficient effluent treatment plant has already been provided to treat waste water generated from the existing plant. He also mentioned that extensive plantation has already been done and overall situation has now been improved. He assured that proposed project will maintain all the environmental norms. He mentioned that for skilled employment, local industrial trade institute will be approached and local people will be given preference for unskilled employment.

Sri L.N Sherpa, Additional District Magistrate (L.R), Uttar Dinajpur while expressing his apprehension stated that all the pollution control system should be maintained in such a manner that the unit must comply with the environmental norms, all possible measures should be ensured by the project proponent towards the mitigation of all environmental problems and various issues raised by the people present in the hearing and that it is the duty of WBPCB to ensure compliance of the same.

Sri D. Sarkar, Sr. Environmental Engineer, WBPCB requested the project proponent to fulfill the commitment made during the presentation and incorporate all the issues raised during the public hearing in the final EIA report and address the issues properly. He assured the audience that the deliberations presented by the audience in the hearing will be duly recorded and video recording of the whole proceedings will be forwarded to the appropriate authorities for their consideration.

In general, the public present in the hearing welcomed the for the project provided that the Project Proponent will implement all the commitments made during public hearing. Finally, Sri L.N Sherpa, Additional District Magistrate (L.R) , Uttar Dinajpur concluded the session.

D. Sarkar.
Senior Environmental Engineer (EIM Cell).
West Bengal Pollution Control Board

L. N Sherpa.
Additional District Magistrate (L.R).
Uttar Dinajpur

ANNEXURE - III

Statement of attendance of the Panel Members of the Public Hearing for the Proposed Grain based Destillery (90 KLD) along with Cogeneration Power Plant (4 MW) at Vill. Paschim Maheshpur, Dist - Uttar Dinajpur, West Bengal. By M/s Tantia Agro-Chemicals Pvt. Ltd.

Public Hearing held on 23.07.2014 at 12:00 Hrs at the Auditorium - "Najrul Rabindra Mancha" (Town Hall), Old Dalkhola Municipality, NH - 34 near Dalkhola High school Para, PO - Dalkhola, Ps. Karandighi Dist. Uttar Dinajpur, Pin - 733201, West Bengal.

Sl. No.	Name of the Panel Members	Signature
1	Sri L.N. Sherpa, Additional District Magistrate (LR), Uttar Dinajpur	23.7.14
2	Sri D. Sarkar Sr. Env. Engineer, WBPCB	23/7/14
3	Shri Prabir Kr. Saha Superintendent of Excise, Uttar Dinajpur,	23/7/14
4.	Sri Subhas Goswami Chairman, Dalkhola Municipality	23/7/14
5.	Rahim Tikadar JEE (WBPCB)	23/07/14
6.	Sri K. Sahoo, A.E.E, WBPCB	23.07.14.

Other Persons & Govt officials Present in the Public Hearing on 23.07.2014 at 12:00 Hrs.

SL. NO.	Name of the Persons with Address	Signature
32	Sujanmal Sethia Dalkola MD	[illegible]
33	Kailash Nath Sharma Mantras Green Resources Nashik	[illegible]
34	Chandrani Bhattacharjee Mantras Green Res. Ltd.	[illegible]
35	Basant Kumar Khelani	[illegible]
36	Tanay Roy ex Chairman Dalkhola Municipality	[illegible]
37	Binod Kumar Khetan	[illegible]
38	Ashok Kumar Surana Dalkhola	[illegible]
39	Rajendra Kr. Bothra — 9434055837	[illegible]
40	Dil Chand Das — 7	DK
41	Manik Halder 1	[illegible]
42	Rajesh Singha Dalkhola	R Singha
43	Sankar Singha "	S Singha
44	Sanjay Shaha "	[illegible]
45		
46	[illegible]	
47	Sanjay Saha — 05	
48	Arun Mondal 04	[illegible]
49	Shovon Sarkar Deshbandhu para	S. Sarkar
50	Nityam Kumar Basu	[illegible]
51	Sanjay Mehta Dalkhola	[illegible]
52	Soumik Pramanick Dalkhola	[illegible]
53	Arabinda Sarkar Dalkhola	[illegible]
54	Askar Ali Ward No-01	[illegible]
55	Atul Mandal Dalkhola	[illegible]
56	Pradip Saha	[illegible]
57	Nishi Kanta Das	[illegible]
58	Chanchal Kumar Das	[illegible]
59	Ikramul Haque Pokowadfer ward	[illegible]
60	Kaushal Kishore Tripathi Ward No-6	[illegible]
61	Prakash Chandra Das Ward No-01	[illegible]
62	Samir Das Ward No 6	S Das

... persons & Govt.

SL 94 Partha Sarathi Mukherjee - Kolkata
NO 95 Bidisha Roy - Mantra's Green Resources Ltd, Nasik.
32 96 S.K. [illegible] - Ward No-6.
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Annexure -5

Steam Requirement for MEE

Boiler	
Steam generation Design	30 TPH
Steam pressure	40 kg/cm2
Fuel used Rice husk	210 MT/day
Power generation	**4 MW**
Back pressure turbine outlet pressure	**4 kg/cm2**
Total	**Steam (@ 3.5 Kg/cm2)**
Liquefaction	90 MT/day
Fermentation	3 MT/day
Distillation Section	270 MT/day
Multiple effect Evaporator	90 MT/day
DDGS Dryer	135 MT/day
Total	**588 MT/day**

Annexure -6

Spent lees and condensate treatment

Spent lees treatment & recycle plant :-

Spent lees are generated from primary and secondary rectifier columns while processing to manufacture R.S and ENA. The generation of spent lees is dependent on the capacity of distillery as well as the mode of operation of plant i.e. to produce RS or ENA. The spent lees treatment plant is designed for the capacity of 300 m3/day. The spent lees from primary rectifier column is usually acidic (pH 3.5 to 4) and may require neutralization.

The generated spent lees at 65^0 C is pumped through S.S. pipeline to equalization come holding tank. The aim of the collection is to reduce the temperature and equalization of the spent lees parameters so as to give homogenized feed for onward treatment.

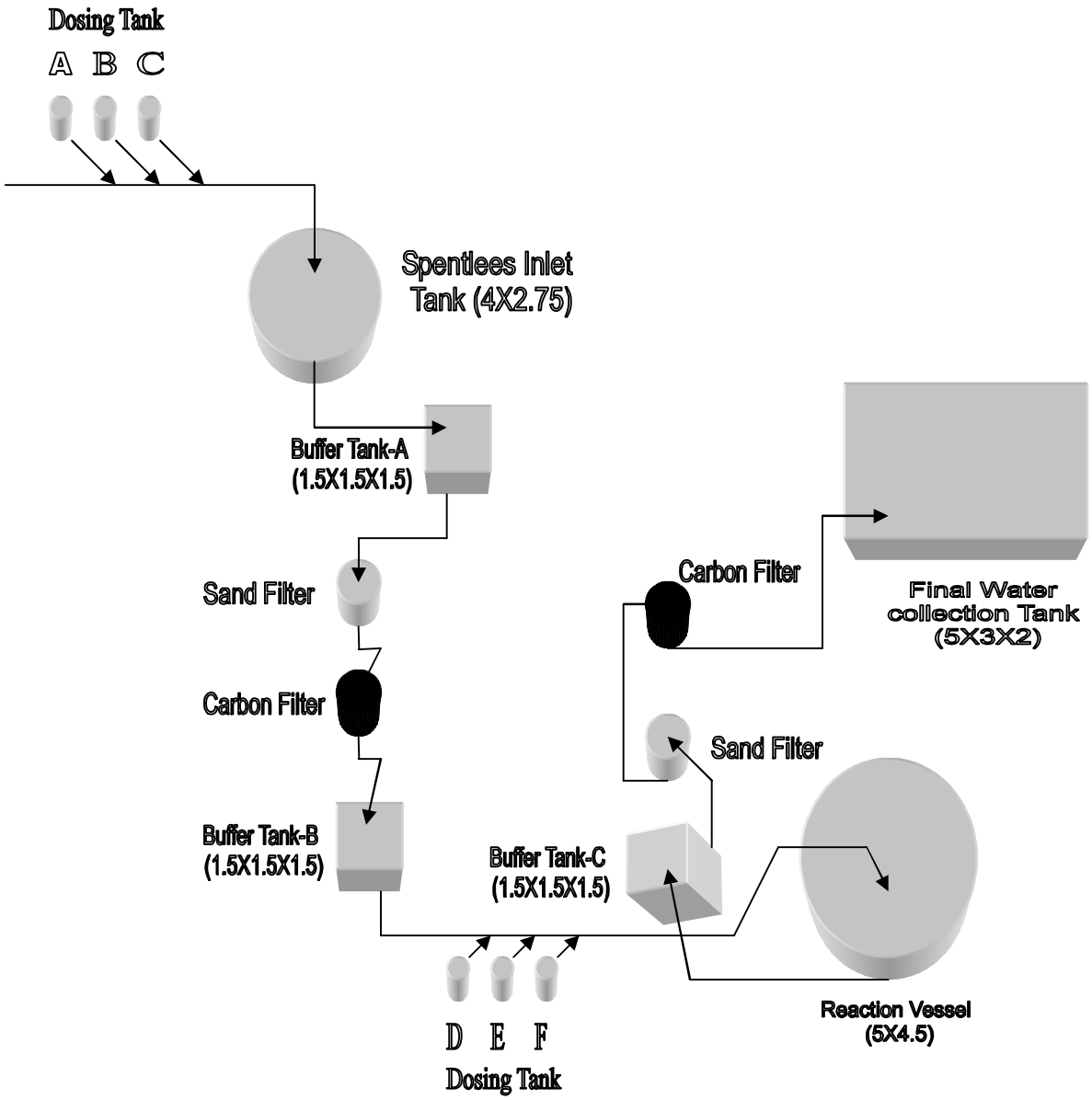
After equalization, primary dosing of oxidizing agents is done and the mass is collected in the spent lees inlet tank. It is now filtered through sand and carbon filter. After filtration the secondary dosing system is provided. The lees after dosing are transferred to reaction tank. The generated spent lees is treated chemically and the water is recycled for process of distillery for fermentation & sometimes it is used as make up water for cooling tower.

The effluent generated from back wash of the sand and carbon filter is very little in quantity is around 10 m3 in a day and the same is used for ash quenching to prevent fugitive emission.

Treatment of condensate from Multiple effect evaporator:

About 90 TPH steam is used in multiple effect evaporators. After transfer of heat for evaporation, steam is condensed and forms water which is pur. Over the processing it may pick up some particulate matter, rusting etc and needs filtration. It is first storged and allowed to cool. Then iot is fed to a multigrade filter to separate out the impurities .

About 10 % water may be lost. Rest is used for cooling tower water replenishment and corresponsing fresh water requirement is reduced.


Dosing Tank
A B C
Spentlees Inlet
Tank (4X2.75)
Buffer Tank-A
(1.5X1.5X1.5)
Sand Filter
Carbon Filter
Buffer Tank-B
(1.5X1.5X1.5)
Carbon Filter
Final Water
collection Tank
(5X3X2)
Sand Filter
Buffer Tank-C
(1.5X1.5X1.5)
Reaction Vessel
(5X4.5)
D E F
Dosing Tank

Annexure-7

Overall Water Budget

Overall Water budget

All values on KLD Basis

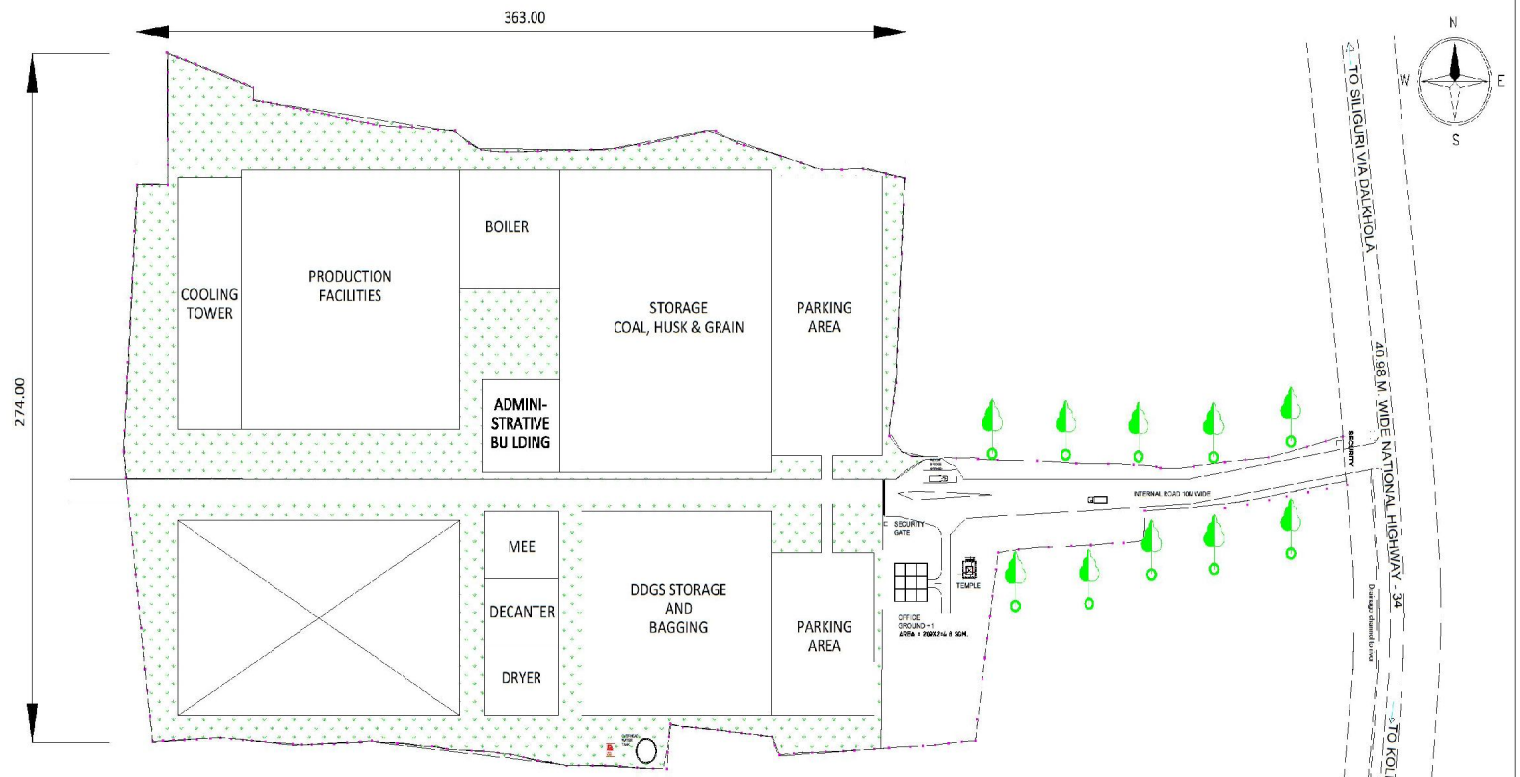
Water use in	Fresh Water	Loss	Effluent	Remarks
Process	210	0	0	Used in process
Boiler	102	92	10	Blowdown
Cooling tower make up	537	507	30	Blowdown
Washing	10	5	5	Blowdown
Domestic	5	2	3	Blowdown
TOTAL	864	606	48	To be used after RO treatment for gardening

Water conservation based on recycle and reuse

Process	Water input	Water output	Operation
Milling	28	--	
Mashing	210	--	Fresh water
	166	404	Recycle feed from evaporator condenser
Cooking	92	496	Input as steam
Flash tank	496	30	Lost as steam in cooking
Liquefaction	466	--	No water addition
Fermenter	152		Back set from thin stillage
Distillation	618	88	Water content in alcohol distilled out.
Decantation	530	134	Water content in Wet cake fed to dryer
		396	Water out as thin stillage
Thin stillage	396	152	Part recycle as back set to Fermenter
		244	Thin stillage to Evaporator for concentration
Evaporator	244	166	Condensate recycle to mashing
		78	Concentrated syrup to dryer
Dryer	212	142	Water evaporated in dryer

Annexure -8

Green belt layout plan



GREEN BELT - PLANT AND TREES

SR. NO.	COMMON NAME	BOTANICAL NAME
1	DEBDARU	POLYALTHIA
2	ASHOK	LONGIFOLIA
3	JARUL	SARACA ASOCA
4	NEEM	LAGERSTROEMIA SPECOSA
5	SODAL	AZADIRACHTA INDICA
6	RUDRAPALASH	CASSIA FISTULA

AREA STATEMENT

SR. NO.	PARTICULARS	AREA IN SQ.M.
1	AVAILABLE LAND AREA FOR DISTILLERY	50380
2	ADMINISTRATIVE BUILDING	1350
3	PRODUCTION FACILITIES	10600
4	COOLING TOWER	3000
5	ETP	1200
6	BOILER	2200
7	STORAGE COAL, HUSK & GRAIN	19530
8	TOTAL	37880
9	GREENBELT AREA	12500

MANTRAS GREEN RESOURCES LTD
(Engg. & Environmental Consultant)
Regd office :Shruti Appt,D'Souza Colony,Above Mohwani Hosp,College Road,Nashik-07.
Admin office :Flat no B-5,B-7, Flushing Meadows,Mahatma nagar, Nasik-422007
Phone : 91-253-6574200/ 3510700,112,Fax : 91-253-3043187

	Date:	Name	Sign
DRWN	24-06-14	CSJ	
CHD	24-06-14	SM	
APPD	24-06-14	SM	
Scale:	NTS		

CLIENT :- TANTIA AGROCHEMICALS PVT LTD (KOLKATA, INDIA)

PROJECT :- PROPOSED 90 KLPD GRAIN BASED DISTILLERY

TITLE: LAYOUT PLAN

REV:	REVISON	APPD	DATE	SIGN