ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR

2015-16

Environmental Statement
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SUBMITTED BY

PARRYS

E.I.D.PARRY INDIA LIMITED,

HULLATTI VILLAGE,

TQ. HALIYAL

DIST. UTTAR KANNADA.

FORM-V

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2016.

PART – A

(i) Name and Address of the Owner/ Occupier of the industry operation : Sri. V. Ramesh
Managing Director
Dare House New No: 234
NSC Bose Road,
Chennai-600001

(ii) Industry category primary
(a) Primary (STC code) : Large Red 17 Category
(b) Secondary (SIC code) (Sugar, Cogen & Distillery Plant)

(iii) Production capacity
Sugar: : 6000 TCD
Co- Gen: : 34 MW
Distillery: : 50 TPH

(iv) Year of establishment : March 2009

(v) Date of the Last Environmental Statement Submitted : 30.09.2015.

PART – B

Water and Raw Material Consumption

(i) Sugar & Cogen Water Consumption m3/day

Source	During the previous year 2014-2015	During the current year 2015-2016
(a) Process	228.00	224.30
(b) Cooling	432.00	347.46
(c) Domestic	19.33	19.14
TOTAL	*679.33	*590.91

***It excludes 1200 m3/day second and third body condensate water is cooled and treated by ACF, MGF used for cooling tower makeup.**

(ii) Distillery Water Consumption m3/day

Source	During the previous year 2014-2015	During the current year 2015-2016
1. Process 2. Cooling 3. Domestic	290.00 145.00 5.00	249.00 86.00 5.00
TOTAL	*440.00	*340.00

(a) Sugar & Cogen Water consumption per unit of output:

Name of product	Process water consumption per unit of product in m3/MT	
	During the previous year 2014-2015	During the current year 2015-2016
1	0.006	0.005

(b) Distillery Water consumption per unit of output:

Name of product	Process water consumption per unit of product in m3/MT	
	During the previous year 2014-2015	During the current year 2015-2016
1	0.033	0.024

(a) Raw Material Consumption for sugar:

Name of raw materials	Name of products	Consumption of raw material per unit of output in MT/MT	
		During the previous year 2014-2015	During the current year 2015-2016
(a) Sugar cane (b) Lime	Sugar Sugar	8.1255 0.014	8.3 0.010
(c) Sulphur	Sugar	0.0040	0.0029

(b) Raw Material Consumption for Distillery:

Name of raw materials	Name of products	Consumption of raw material per unit of output in MT/MT	
		During the previous year 2014-2015	During the current year 2015-2016
Molasses	RS/ENA/IS	3.64	3.56
TRO	RS/ENA/IS	0.0008	0.000554
Urea	RS/ENA/IS	0.00045	0.000625
DAP	RS/ENA/IS	0.00014	0.000216

PART – C

Pollution Generated (parameters as specified in the consent issued)
See Annexure II (a), II (b) &II (c)

PART – D
Hazardous Wastes
[As specified under Hazardous Wastes (Management and Handling Rules, 1989) Amended Rules, 2003]

Hazardous Wastes	Total Quantity in litres	
	During the previous year 2014-15	During the Current year 2015-16
(a) From Process	Nil	Nil
(b)From pollution Control facilities	Nil	Nil
(c)Used oil from DG Sets Cat. No. 5.1	65	93

PART – E

(a) Solid Wastes

Wastes	Total Quantity (MT)	
	During previous year 2014-15	During current year 2015-16
a) From Process (By products)		
1) Bagasse	240386.8	263778.976
2) Press mud	Nil	Nil
3) Molasses	41779	50231
4) Boiler ash	3605.802	3956.685
b) From pollution control facility (ETP sludge)	44	56.5
c) Quantity recycled or reutilized within the unit		
1) Bagasse as boiler fuel	240386.8	263778.976
2) Sold Wastes		
i) Bagasse	Nil	Nil
ii) Press mud	Nil	Nil
iii) Molasses	41779	50231
iv) Boiler ash	3605.802	3956.685
3) Disposed	Nil	Nil

(b) Distillery Solid Wastes

Wastes	Total Quantity (MT)	Total Quantity (MT)
	During previous year 2014-15	During current year 2015-16
1) Boiler ash (Bottom Ash & Boiler Ash)	2370.00	2548.00
2) Raw Spent Wash.	111081.00	121050.00
3) Yeas sludge	430.00	504.35
a) Quantity recycled or reutilized within the unit	Nil	Nil
Concentrated SW.	22439.00	24416.00
4) Sold Boiler ash	2370.00	2548.00
5) Disposed	Nil	Nil

PART –F

Please specify the characterization (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

There is no generation of hazardous waste either from the process or from pollution control facilities. Hazardous waste generation is from DG sets in the form of used oil. This is classified under category 5.1 as per hazardous waste rules (Management & handling) Amendments 2003. This is stored in the premises in sealed barrels and used for lubrication of belt conveyors, cane carrier chains etc.

Major by products are bagasse, boiler ash and molasses. All the molasses produced is used in our own distillery in the premises as a raw material for manufacturing of rectified spirit and enhydrous alcohol.

Other by products viz. ETP sludge and boiler ash are mixed in the ratio of 1:10, and is being used as organic manure. This mixture is rich in nutrients and contains Nitrogen, Phosphorous, potassium and carbon and is being used as organic fertilizer. This mixture is given to the farmers as fertilizer due to its rich nutrient value and also acts as a soil conditioner. Some quantity of Boiler ash sold to Brick manufacturers also.

All the bagasse is used as boiler fuel in the Co-gen plant in our own premises.

Distillery Boiler ash which is rich in potash and making into granular form and packed in 50 Kg Bag and selling as fertilizer. The Yeast sludge generated from fermenter is incinerated in boiler.

All the concentrated SW is used as boiler fuel in our slop fired boiler in own premises.

Kindly refer to **Annexure III, IV and II (d)** for the characteristics of molasses respectively.

PART – G

In respect of pollution abatement Measures taken up on Conservation of Natural Resources and on the cost of production.

- It increases the cost of production in terms of electricity consumed on various Pollution control equipment's such as aerators, Clarifiers, Water and Sludge Pumps etc.
- For maintaining the ETP Laboratory.
- For Chemicals used in Effluent Treatment Plant.
- We have a sugar cane farm of 103 acres. The treated effluent is used for irrigation in our Cane farms. This cane farm is used for R & D purpose for raising special cane varieties and distributed to our cane growers.
- Electrostatic Precipitators in our Co-Generation plant boilers are working Satisfactorily and result are within KSPCB norms.
- The spent wash is evaporated in Flubex Quintuple effect evaporator from 15' brix to 60' brix. After concentration it is burnt in a fluidized combustion bed boiler as fuel.
- Bag Filter is installed to control the Air Pollution of Spent Wash Incineration Boiler.
- The evaporator condensate water is treated in our effluent treatment plant and the treated water is used for Irrigation purpose in our own cane form.
- Ambient Air Quality and Ground water Quality monitoring are carried out periodically in order to protect the environment.
- Juice collection pits are provided to collect the leakage and overflows and the same was recycled to Process which reduce pollution Load to ETP.

PART – H
MISCELLANEOUS

Any other particulars in respect of Environmental, protection and abatement of pollution.

The raw water consumption for sugar and co-gen plant is reduced from 3157 KLPD to 2000 KLPD by implementing the following measures.

(A) Sugar process excess condensate water treatment

The excess condensate water from sugar process is separate Collection tank and cooled in cooling tower to reduce the temperature up to 35°C to 38°C and

filtered with MGF and ACF. The Filtered water is reused for cooling and process in place of raw water in sugar and distillery plant.

(B) Corporate Responsibility for Environment Protection (CREP) implementation

- The raw water consumption for sugar plant is reduced in line with CREP norms. As per CREP norms the waste water generation from the sugar plant is reduced to 100 litres per ton of cane crushing by implementing the following measures.
- Sugar and Co-generation plants are fully automated with DCS and PLC system. The raw material and water is being utilized efficiently.
- Evaporator operations are automated to reduce the frequent tube cleaning.
- Evaporator and Pan body hydraulic checking water is recycled to service water tank.
- Dry cleaning is adopted instead of water washing where ever possible.
- Good housekeeping at workplace reduces pollution load to ETP
- Press water juice heating is done by utilizing II body condensate available heat.
- Rain water harvesting system implemented to reduce raw water consumption.

PART – I

Additional measurers / Investment proposal for environmental protection including abatement of pollution / prevention of pollution.

The company is adopting quality management systems step by step. Proper production planning, excellent housekeeping measurers and preventive maintenance have resulted in reduced consumption of raw material per unit of output.

The industry has taken up village wise meeting to educate the farmers about trash shredding and mulching, using as organic fertilizer, better water management practices to get a better yield of sugarcane. Industry has done awareness program for eco-friendly celebration of Ganesh festival and arranged for water tank for immersion of Ganesh Idols in the premises. This water is used for gardening purpose.

ANNEXURE – I
(a)Sugar plant Seasonal working of the factory

SL NO.	Particulars	For previous year 2014-15	For Current year 2015-16
01	Total Crushing days for the season	180	174
02	Total sugar cane crushed during the season (MT)	883774.774	960040
03	Total sugar produced (MT)	108765.825	115681.44
04	Daily average of cane Crushed (MT)	4909.85	5517.47
05	Daily average of sugar produced (MT)	604.25	664.84

(b)Distillery plant Seasonal working of the factory

SL NO.	Particulars	For previous year 2014-15	For Current year 2015-16
01	Total R.S./ENA/IS Production (KL)	13161.98	14151.46
02	Total molasses consumed (MT)	47971.00	50435.30
03	Total working days.	291.23	298.68
04	Daily average of molasses consumed (MT)	164.718	168.86
05	Daily average R.S./ENA/IS Production (MT)	45.19	47.38

ANNEXURE – II (a)
Waste Water Analysis Report

SL No.	Parameters	Values in mg/L except colour & pH	
		Untreated	Treated
01	Colour	Light yellow	Colour less & odourless
02	Suspended Solids	165	80
03	pH Value	5.85	7.3
05	Oil & Grease	BDL	BDL
06	3 days BOD at $20^{o}C$	1254	90

Note: The results are for the season 2015-16. The testing is carried out every month. The above values show variation in the results (Average value is shown).

ANNEXURE – II (B)

Ambient Air Monitoring Reports

SL NO.	Sampling Stations	PM 10 ug/Nm3	PM 2.5 ug/Nm3	S02 ug/ Nm3	NO2 ug/ Nm3	CO2 mg/m3
01	Near Guest House	64.6	22.4	4.3	15.2	BDL
02	Near ETP	52.8	19.6	3.8	17.4	BDL
03	Main Gate	80.2	23.0	6.1	19.8	0.27

Note: The above results are for the crushing season 2015-16. The Ambient Air Quality monitoring is done every month by NABL Approved laboratory.

ANNEXURE – II (c)

Stack Monitoring Report

SL No.	Parameters	Results		
		120 TPH	45 TPH	15TPH
01	C.S area of stack (m^2)	6.16	4.475	1.273
02	Fuel used	Bagasse	Bagasse	Coal & Conc.SW
03	Temperature (^oC)	80	140	164
04	Flue gas velocity (m/sec)	9.05	8.19	8.84
05	Suspended Particulate Matter (mg/Nm^3)	78.3	70.3	94.6

Note: The above results are for the crushing season 2015-16. The Stack monitoring is done every month by NABL Approved laboratory.

ANNEXURE – III

Characteristics of Bagasse

SL NO.	Parameters	Concentration
01	pH	7.4 to 7.7
02	Nitrogen (%)	0.1 to 0.3
03	Phosphorus (%)	0.2 to 0.3
04	Potassium (%)	0.05 to 0.07
05	Organic carbon (%)	35 to 45

ANNEXURE – IV

Characteristics of Molasses

SL NO.	Parameters	Concentration in mg/L Except pH & Colour
01	pH	4.40 to 5.7
02	Colour	Dark Brown
03	TDS	15471
04	BOD	43456
05	COD	101457
06	Chlorides	5697
07	Sulphates	4274

PART – I

Any other Particulars in Respect of Environmental Protection and abatement of pollution.

1. The industry has planted different varieties (560 No's) like Badam, Turmeric, Rain tree etc... in the factory premises at a cost of Rs 1.20 Lakhs.
2. The Industry has renewed the bag filters of the 15 TPH boiler at the cost of Rs 12 .00 Lakhs.
3. The Industry has renewed ETP BY providing new effluent transfer Pipe line; online effluent monitoring system & Online stack emission system at the cost of Rs 48.00 Lakhs. And connected to CPCB/KSPCB web site.
4. The Industry has involved in corporate social responsibility by providing a Mobile Medical service in and around Haliyal in collaboration with AMM foundation and Wockhardt Hospitals, covering 13 villages (2 villages/day) this year total 20403 people have got benefitted out of this facility.
5. Providing Mid-day Meal for Balawadi School children (Around 62 children are getting benefitted) at Haliyal, most of them are children of laborers out of which 15 children are of our Sugar Bagging, Loading & Unloading contractors. Also extending the help for salary payment of 2 teachers' and 1 helper of Balawadi – Cost of the Services / year: Rs.1.25 Lakhs.
6. Extending education reimbursement to the Land Sellers' children – 18 (one child / Land Seller) in Haliyal, this as per the agreement with Land Sellers'. Cost of the Services (2015-16) : Rs.1.75 Lakhs.
7. Company has repaired and maintained road of 1000 meters and to control the fugitive emissions water is being sprayed on these roads with the help of tankers with cost of Rs 4.0 Lakhs/ annum.
8. All these roads are having pucca storm water drains which are being maintained properly.

Yours faithfully,

E.I.D.-Parry (India) Limited,

Venkata Rao J.

Sr.Associate Vice President (Works)