



MCPI Private Limited

(Formerly MCC PTA India Corp. Private Limited,
Materials Chemicals and Performance Intermediaries Private Limited)

Ref. No.: WBPCB/09/19/849

Dated: 16.09.2019

Member Secretary

West Bengal Pollution Control Board
Paribesh Bhawan, 10A, Block – LA
Sector – III, Bidhan Nagar,
Kolkata -700098.

Sub: Environment Statement for the financial year ending 31st March 2019

Dear Sir,

I would like to convey my sincere thanks and regards to you and your officials of Kolkata and Haldia for continuous support and guidance for smooth running of the PTA plant operations at Haldia.

We are now submitting herewith two copies & one CD of Environment Statement for the PTA plant for the financial year ending 31st March'19 (April'2018 - March'2019) in prescribed format along with relevant documents for your kind perusal.

Thanking you,

Yours Sincerely,
For **MCPI Private Limited**

Gautam Pal
Vice President [Utility, SHE & Quality]

Encl: a/a

Copy to:

- 1) Director (S), MoEFCC, Bhubaneswar
- 2) Sr.Environmental Engineer, WBPCB, Haldia
- 3) In-charge, CPCB- Eastern Regional Office - Kolkata

FORM – V

(See Rule 14)

ENVIRONMENT STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31ST MARCH 2019

PART – A

- I. Name & address of the owner / occupier of the industry operation or process.
Mr. D. P. Patra (Occupier)
MCPI Private Limited (Formerly: MCC PTA India Corp. Private Limited, Materials Chemicals and Performance Intermediaries Private Limited)
Vill & P.O – Bhuniarachak Via – Sutahata (Haldia)
Purba Midnapore, W.B. Pin - 721635
- II. Industry category – Primary (STC Code) – Secondary (STC Code)
- III. Production capacity – (4,70,000+9,00,000) TPA of PTA
- IV. Year of establishment- **Mechanical completion: Dec'1999, Commercial Production: April'2000.**
Expansion Plant: Commercial Production: April'2010
- V. Date of last environment statement submitted – 20/09/2018

PART – B

Water & Raw Material Consumption

- I. Water consumption m³/Day (Actual Avg.)
- | | | |
|----------|----------|---------------------|
| Process | 8640.59 | M ³ /Day |
| Cooling | 15293.25 | M ³ /Day |
| Domestic | 382.91 | M ³ /Day |

Name of products output	Process water consumption per unit of product	
	During the previous financial year	During the current financial year
(1)	(2)	(3)
(1) PURIFIED TEREPHTHALIC ACID (PTA)	6.68 KI/Ton of PTA	7.36 KI/Ton of PTA (Process water consumption includes cooling Water also.)

II. Raw Material Consumption (Refer Annexure – I)

* Name of raw material	Name of products	Consumption of raw material per unit	
		During the previous financial year	During the current financial year



*Industry may use codes of disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw materials.

PART – C

Pollution discharged to environment / unit of output. **(Refer Annexure – II)**
(Parameter as specified in the consent issued)

Pollution	Quantity of pollutants Discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage or variation from prescribed standards with reasons
(a) Water			
(b) Air			

PART – D

HAZARDOUS WASTES

(As specified under new Hazardous and Other Wastes (Management, Handling & Transboundary Movement) Rules, 2016)

Hazardous Wastes	Total Quantity (Kgs.)	
	During the previous financial year	During the current financial year
(a) From process *	Refer Ann: III b	Ref: Annexure – III a
(b) From pollution control facilities	# 12150	# 11400

***Process Sludge along with ETP Sludge were sent to Odisha Cement Ltd (Dalmia) for Co processing and CHWTSDF for disposal.**

This includes Ash from Desulphurization Unit (De-sox ash)

PART – E

SOLID WASTES

	Total Quantity (Kgs.)	
	During the previous financial year	During the current financial year
(a) From process	-	-
(b) From pollution control facility	-	-
(c) (1) Quantity recycled or re-utilized within the unit in 200ltr in nos.	-	-
(2) Sold	MS Drum: 574 HDPE: 5212	MS Drum: 234 HDPE: 5401
(3) Disposed	NA	-

PART – F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both categories of wastes. **Refer Annexure - IV**



PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of pollution. **Refer Annexure – V**

PART – H

Additional measures/ investment proposal for environmental protection, abatement of pollution, prevention of pollution. **Refer Annexure - VI**

PART – I

Any other particulars for improving the quality of the environment.
Refer Annexure - VII



Annexure - I

Raw material Consumption

Name of Raw material	Name of products	Consumption of raw material per unit	
		During the previous Financial year (ton/ton of PTA)	During the current financial year (ton/ton of PTA)
1. Paraxylene	Purified Terephthalic Acid (PTA)	0.65827	0.65489
2. Methanol		0.00184	0.00198
3. Acetic acid		0.04974	0.05016
4. Hydrobromic acid		0.001333	0.00132
5. Caustic soda		0.007307	0.00910



Annexure – II

Pollutant discharged to environment/unit of output

Pollution	Quantity of pollutants Discharged (mass/day) Kg/day (avg.)	Concentration of pollutants discharged (mass/volume) mg/lit (avg.)	% or variation from prescribed standards with reasons
Water			
COD	936.30	63.33	Nil
BOD	178.30	12.83	Nil
O&G	37.18	2.28	Nil
F	10.77	0.68	Nil
Fe	7.84	0.53	Nil
Mn	9.84	0.57	Nil
TSS	139.37	16.00	Nil

Note: The final discharge flow rate is taken as 15425 m³/day (Avg.) During this period.

All results are average values of monthly sampling during this period.

Air

	Quantity of pollutants Discharged (mass/day) Kg/day (avg.)	Concentration of pollutants discharged (mass/volume) mg/ Nm³ (avg.)	% or variation from prescribed standards with reasons
PM	171.38	52.39	Nil
CO	Average values are less than	0.20 %	Nil



LIST OF HAZARDOUS WASTE
During April'18 to March'19

Sl. No.	Identified Hazardous Waste	Generation	Disposed quantity of hazardous waste to TSDF	Storage & Disposal procedure
1	Ash from ESP	0.0	0.0	Temporarily stored in the scrap yard and finally disposed through TSDF
2	Scrap PTA	0.00	0.00	do
3	Empty PTA contaminated plastic liners	2.91 Ton	1.00 Ton	do
4	Empty paint & Dye penetration container	2.08 Ton	2.16 Ton	do
5	Oil & Chemical soaked cotton waste	1.96 Ton	1.70 Ton	do
6	De-Sox Ash	11.37 Ton	11.40 Ton	do
7	Mixture of Process & Utility Sludge (WWT sludge)	22797.15 Ton	22797.15 Ton	Temporarily stored in Incinerator pit and finally disposed through TSDF & Co-Processing
8	Rejected Water Treatment Resins	0.00	0.00	do
9	Asbestos cloth & CAF gasket	0.00	0.00	do
10	Molecular Sieve	0.00	0.00	do
11	Used Oil	90.94 Ton	90.94 Ton	Temporarily stored and finally disposed through authorized party (Registered recycler & reprocess or)
12	Waste Oil	111.71 Ton	111.71 Ton	do
13	FO Sludge	0.00	0.00	do
14	Battery	0.00	0.00	Re cycler

*Note- Disposal of Hazardous waste to TSDF Started from May'06 onwards.
The above quantity includes the expansion plant also

Remarks:

Integrated Scrap Yard storing hazardous & non hazardous waste have been constructed in the year 2006 with partition and segregation for the same. Refer annexure for details.



LIST OF HAZARDOUS WASTE
During April'17 to March'18

Sl. No.	Identified Hazardous Waste	Generation	Disposed quantity of hazardous waste to TSDF	Storage & Disposal procedure
1	Ash from ESP	0.0	0.0	Temporarily stored in the scrap yard and finally disposed through TSDF
2	Scrap PTA	0.00	0.00	do
3	Empty PTA contaminated plastic liners	2.16 Ton	1.84 Ton	do
4	Empty paint & Dye penetration container	1.23 Ton	1.15 Ton	do
5	Oil & Chemical soaked cotton waste	2.33 Ton	2.00 Ton	do
6	De-Sox Ash	14.68 Ton	12.15 Ton	do
7	Mixture of Process & Utility Sludge (WWT sludge)	20792.01 Ton	20792.01 Ton	Temporarily stored in Incinerator pit and finally disposed through TSDF & Co-Processing
8	Rejected Water Treatment Resins	0.00	0.00	do
9	Asbestos cloth & CAF gasket	0.00	0.00	do
10	Molecular Sieve	0.00	0.00	do
11	Used Oil	0.00	0.00	Temporarily stored and finally disposed through authorized party (Registered recycler & reprocess or)
12	Waste Oil	90.66 Ton	90.66 Ton	do
13	FO Sludge	0.00	0.00	do
14	Battery	0	0	Re cycler

*Note- Disposal of Hazardous waste to TSDF Started from May'06 onwards.
The above quantity includes the expansion plant also

Remarks:

Integrated Scrap Yard storing hazardous & non hazardous waste have been constructed in the year 2006 with partition and segregation for the same. Refer annexure for details.



Annexure - IV

Process waste i.e. Process Sludge & sludge from waste water treatment plant (ETP) were sent to OCL Cement Industries for Co-processing & sludge from waste water treatment plant (ETP) were sent to CHWTSDF for disposal.

The sludge generated from Waste water treatment plant is dehydrated in sludge decanter & dryer. The sludge from waste water treatment plant contains about 90% moisture. The waste from process contains around 40 % moisture.

The list of hazardous waste with generation quantity & its disposal during this period is enclosed as **Annexure - IIIa**. The test reports of different Hazardous wastes and copy of Hazardous waste authorization are also enclosed as **Annex - IVa**. Authorization for storage and disposal of hazardous waste obtained from WBPCB and renewed for 5 year (valid up to year 2021). The hazardous as well as non-hazardous wastes are segregated and hazardous waste is stored in an integrated scrap yard. All the identified hazardous waste is being disposed off periodically as per the regulation. The final disposal of hazardous waste is done through West Bengal Waste Management Limited (CHWTSDF) at Haldia periodically. The Used & Waste oil is being taken by CPCB approved registered recycler & Preprocessor. The lay out of the Integrated Scrap Yard is shown in **Annexure - IVb**.

Solid Waste

The non-hazardous waste i.e. scrap are also stored in the scrap yard in separate locations and finally sold to scrap vendor.

Around 234 nos. of MS drums 5401 nos. of HDPE drums of Raw materials after decontamination/ cleaning have been sold to the outside vendor during the period April'18 – March'19.



IVa



WEST BENGAL POLLUTION CONTROL BOARD

(Department of Environment, Govt. of West Bengal)

Paribesh Bhawan

Bldg. No. 10 A, Block-LA, Sector-III, Bidhan Nagar,

Kolkata - 700 098

Tel : 0091 (033) 2335-9088 / 8861 / 8211 / 8073 / 6731

2335-0261 / 8212 / 8213 / 7428 / 5975

Fax : 0091 (033) 2335 6730 / 2813

Website : www.wbpcb.gov.in, e-mail : [wbpcnet@wbpcb.gov.in](mailto:wbpccnet@wbpcb.gov.in)

Memo No. 84/2S(HW)-255/99-2000 (Pt-II)

Date: 03.03.2016

Form - II

Grant of Authorization under the provisions of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 & amendments made thereafter:

Ref.: Application for authorization dated 14/12/2015 for management & handling of hazardous waste.

Authorization for Operating a facility for generation, handling, collection, reception, storage, transport, recycling, reprocessing, reuse and disposal of hazardous wastes under Rules 5(4) of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 & amendments made thereafter.

1. Memo No. and date of previous Authorizations issued by the Board xxx Dated xxx.

2. M/s MCC PTA India Corp. Pvt. Ltd.

Vill & PO-Bhuniaraichak, Via-Sutahata, Haldia, Dist-Purba

Medinipur-721635, West Bengal is hereby granted an authorization to operate a facility

for generation, handling, collection, reception, transport, storage and disposal of hazardous waste of

category's "1.7, 3.3, 5.1, 5.2, 33.3, 34.2, 34.3, 36.1, 36.2, B4, B21, C8" on

the premises situated in Vill & PO-Bhuniaraichak, Via-Sutahata, Haldia,

Dist-Purba Medinipur-721635, West Bengal.

The authorization shall be in force for a period up to 31/01/2021.

3. The authorization is subject to the condition stated below and such conditions are as may be specified for the rules for the time being in force under the Environment (Protection) Act, 1986.

Ghose 02.03.16.

[Chief Engineer]

Waste Management Cell

on behalf of

Member Secretary

West Bengal Pollution Control Board

Encl.: Terms & conditions for authorization.



Terms and conditions of authorization

1. The authorization shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made thereunder.
2. The unit shall not store hazardous waste for more than 90 Days under any circumstances.
3. The authorisation or its renewal shall be produced during inspection at the request of an officer authorised by the State Pollution Control Board.
4. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the State Pollution Control Board.
5. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
6. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
7. An application for the renewal of authorization shall be made as laid down in Rule 5(7) of the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 & amendments made thereafter.
8. Without Board's permission the authorized person cannot dispose off any category of hazardous waste of the unit outside the factory premises.
9. The person authorized is allowed to store the hazardous wastes inside the factory with all precautionary measures to avoid any leaching. Moreover direct land filling of any hazardous wastes is not permitted.
10. The occupier will not be allowed to dispose / recycle / reuse or reprocess any of their hazardous wastes by any unauthorized external agency / or without the consent of State Board.
11. The occupier / generator will not be allowed to transport any types of hazardous wastes through any unauthorized transporters as per Motor Vehicles Act, 1988 and Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 & amendments made thereafter.
12. Hazardous waste storing drums / pits should be properly covered.
13. Proper display arrangement showing characteristic / category / quantity per month etc. to be made at the storing site.
14. The occupier should maintain all other formalities viz. Form - 3, 4,6,11,12 & 13 as per Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 & amendments made thereafter.
15. Any off-specification product and containers of hazardous chemicals should not be disposed of outside or sold to any unauthorized agency without the knowledge of the Board.
16. All safety precautions and procedures to be adopted during handling of hazardous wastes.
17. Good housekeeping to be maintained in the factory.
18. Authorization may be withdrawn any time if hazardous wastes storage facilities are not found satisfactory and in case of non-compliance of any statutory provisions under the said rules.



Additional Terms and conditions of authorization

- i. The unit shall store the hazardous waste under shade in an environment friendly manner within the premises at designated place & shall not store hazardous wastes onsite for more than 90 days.
- ii. The unit shall dispose of molecular sieve (1.7), Oil soaked cotton waste (5.2), empty paint & dye container, Empty PTA contaminated plastic liner (33.3), rejected water treatment resin (34.2), ETP sludge (34.3), sludge from wet scrubber (36.1), Ash from ESP (36.2), Asbestos cloth & CAF gasket (B21) to the Common Hazardous Waste TSDF at Haldia through manifest (Form 13) system.
- iii. Oil sludge (3.3), Used oil, Waste oil (5.1, lead acid battery (B4), scrap PTA (C8) shall only be sold through manifest system (Form 13) to the recyclers having valid registration of the Central Pollution Control Board /State Pollution Control Board during each sale, the original registration pass book issued by the CPCB/SPCB to the registered recyclers shall be endorsed mentioning the quantity and copy of the same should be kept as record.
- iv. The unit shall submit copies of Form 13 to the State Board on a regular basis.
- v. The unit shall submit Annual return in Form 4 on regular basis.
- vi. Records of hazardous waste generation, storage and disposal shall be maintained properly and shall be available to the inspecting officials of the State Board during inspection.
- vii. The unit shall update regularly the environmental information in Display Boards as per the order of the Hon'ble Supreme Court dated 14/10/2003 in W.P. (C) No. 657 of 1995...
- viii. The unit shall submit status of Air/water consent status.
- ix. Authorization will be revoked in case of non-compliances with any of the above conditions.

✓ M/s MCC PTA India Corp. Pvt. Ltd.
Vill & PO-Bhuniaraichak, Via-Sutahata,
Haldia, Dist-Purba Medinipur-721635, West Bengal

Ghose
02.03.16

[Chief Engineer]
Waste Management Cell
on behalf of Member Secretary
West Bengal Pollution Control Board



wa

TEST REPORT

Name & Address of the Customer :
'MCPI PRIVATE LIMITED'
Haldia ,Purba Mednipur
Pin- 721635, West Bengal, India

Report No. : WB/ED-7033
Date : 21.01.2019
Sample No. : MSKGL/ED/2018-19/11/01128
Sample Description : Waste Oil
Sample Drawn on : 22.11.2018

Reference No. & Date: 4500058512, Dtd: 09.11.2018

ANALYSIS RESULT

<u>SI No.</u>	<u>Test Parameters</u>	<u>Maximum Permissible Limit</u>	<u>Result</u>
1.	Polychlorinated biphenyls (as PCB) in ppm	<2	<1.0
2.	Cadmium + Chromium+ Nickel in ppm	500	<0.2
3.	Lead in ppm	100	<0.2
4.	Arsenic in ppm	5	<0.2
5.	PAH in %	6	<0.01
6.	Water content in %	1	<0.1
7.	Sulphur in %	4.5	0.60
8.	Total Halogen in ppm	4000	90
9.	Sediment in %	0.25 %	0.12

Report Prepared By 

for Mitra S. K. Private Limited


Authorised Signatory

- The results relate only to the items tested.
- This Test Report shall not be reproduced except in full, without the Permission of Mitra S.K. Private Limited.



1Va

TEST REPORT

Name & Address of the Customer :
'MCPI PRIVATE LIMITED'
Haldia ,Purba Mednipur
Pin- 721635, West Bengal, India

Report No. : WB/ED-7032
Date : 21.01.2019
Sample No. : MSKGL/ED/2018-19/11/01127
Sample Description : FO Sludge
Sample Drawn on : 22.11.2018

Reference No. & Date: 4500058512, Dtd: 09.11.2018

ANALYSIS RESULT

<u>SI No.</u>	<u>Test Parameters</u>	<u>Result</u>
1.	Polychlorinated biphenyls (as PCB) in ppm	<1.0
2.	Cadmium + Chromium+ Nickel in ppm	26
3.	Lead in ppm	<0.2
4.	Arsenic in ppm	<0.2
5.	PAH in %	<0.01
6.	Water content in %	0.2
7.	Sulphur in %	2.36
8.	Total Halogen in ppm	150
9.	Sediment in %	0.52

Report Prepared By 

for Mitra S. K. Private Limited


Authorised Signatory

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the Permission of Mitra S.K. Private Limited.



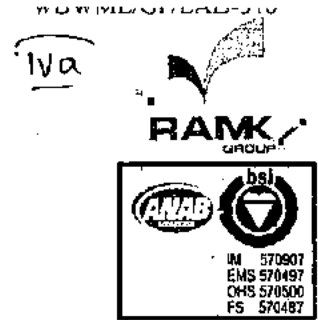


NABL
Accredited Laboratory
Certificate No. : TC-7471
ULR - TC74711900000349P

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)
J.L. No. : 103, Mouza : Purba Srikrishnapur
P.S. : Sutahata, Haldia - 721635
Dist. : Purba Midnapore, State : West Bengal
T : 03224-278238/39, Fax : 278240
E-mail : laboratorywbwml@ramky.com

LABORATORY
(Recognized by WBPCB)



TEST REPORT

Name and Address of Customer : M/s MCC PTA India Corp Pvt. Ltd.
Vill. & P.O.- Bhuniarachak. Via:- Sutahata (Hadia) Purba
Midnapore.W.B.721635

Sample Description : F-5361 Pit bottom sludge
Sample Collected by : WBWML
Date of Sampling : 5th June'2019
Sample Registration No. and Date : CA - 19/212, 10th July'2019
Sample Receipt Condition : Sample recd. in plastic pouch.
Analysis Starting Date : 10th July'2019
Analysis Completion Date : 19th July'2019
Test Required : Comprehensive Analysis
Report No. and Date : CAR - 19/212, 19th July'2019
Sub-contracting of Analysis : None

TEST RESULT

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
1	Bulk Density	Gm/cc	ASTM Std. : D 5057 - 10	1.13	-
2	Paint Filter Liquid Test	-	SW-846 : 9095 A	Pass	Pass
3	pH (at 25.0°C)	-	USEPA 1998,SW-846 : 9045C	7.15	4.0-12.0
4	Calorific Value	kcal/kg	IS : 1350 (Part II) - 1975 (RA 2010)	2150.0	< 2500.0
5	Flash Point	°C	USEPA 1998,SW-846 : 1020A	> 60	> 60.0
6	Loss on Drying at 103-105 °C	% (w/w)	Std. Methods : 2540 G : 2017	91.73	-
7	Loss on Ignition at 550 °C (Dry Basis)	% (w/w)	Std. Methods : 2540 G : 2017	51.00	< 20.0 (non-biodegradables) < 5.0(biodegradables)
8	Water Soluble Organics	% (w/w)	DIN : 38414 Part 4 (S4) Std. Methods : 2540 E : 2017	0.48	< 10.0
9	Oil and Grease (As n-Hexane Extractable)	% (w/w)	USEPA 1998,SW-846 : 9071A	< 1.00	< 4.0
10	Cadmium - Total	mg/kg	USEPA 1998,SW-846 : 7000 B	3.34	-
11	Cadmium - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B : 2017	< 0.02	< 0.20
12	Cadmium - TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B : 2017	< 0.02	< 1.00
13	Chromium - Total	mg/kg	USEPA 1998,SW-846 : 7000 B	83.54	-
14	Chromium (VI) - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods:3500-Cr B : 2017	< 0.20	< 0.50
15	Chromium - TCLP	mg/L	USEPA 1998, SW-846 : 1311	< 0.20	< 5.0

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
16	Copper – Total	mg/kg	USEPA 1998, SW-846 :7000 B	9.57	–
17	Copper – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.02	< 10.0
18	Lead – Total	mg/kg	USEPA 1998, SW-846 :7000 B	161.24	–
19	Lead – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.20	< 2.0
20	Lead – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	< 0.20	< 5.0
21	Nickel – Total	mg/kg	SW-846 : 3050B, 7000 B	114.32	–
22	Nickel – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.14	< 3.0
23	Zinc – Total	mg/kg	USEPA 1998, SW-846 :7000 B	1287.59	–
24	Zinc – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.01	< 10.0
25	Phenol – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	< 100.0

Note:

CPCB – Central Pollution Control Board

WLT – Water Leaching Test

TCLP – Toxicity Characteristics Leaching Procedure

ASTM – American Society for Testing and Materials

IS – Indian Standard

SW 846 – Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA, May 1997

Std. Methods – Standard Methods for the Examination of Water & Wastewater, 23rd Edition, APHA/AWWA/WEF, 2017

DIN : 38414 Part 4 (S4) – German Standard Procedure for Water, Wastewater, and Sediment Testing-Group S (Sludge and Sediment); Determination of Leachability (S4), 1984

NA – Not Analyzed, ND – Not Detected

The comprehensive analysis report refers only to the 'as received' sample of waste

The relevance vis-à-vis applicability of the report solely relates to the category no. as per the latest Hazardous Waste Rules as or as would be assigned by the concerned statutory authority

The report cannot be produced in part or in full without the permission of West Bengal Waste Management Limited

Sushanta Paul
(Chemist – Lab.)
Checked by

Tarun Kumar Middya
Tarun Kumar Middya
(Asst. Manager – Lab.)
Authorized Signatory

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)

J.L. No. : 103, Mouza : Purba Srikrishnapur

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Dist. : Purba Midnapore, State : West Bengal

T : 03224-278238/39, Fax : 278240

E-mail : laboratorywbwml@ramky.com

LABORATORY**(Recognized by WBPCB)**

WB WASTE MANAGEMENT LTD.

**TEST REPORT**

Name and Address of Customer : M/s MCC PTA India Corp. Pvt. Ltd.
Vill. & P.O.- Bhuniaraichak. Via: Sutahata (Haldia) Purba Midnapore

Sample Description : F-5361 Pit bottom sludge.

Sample Collected by : WBWML

Date of Sampling : 5th July'2019

Sample Registration No. and Date : CA - 19/212, 10th July'2019

Sample Receipt Condition : Sample recd. in plastic pouch.

Analysis Starting Date : 10th July'2019

Analysis Completion Date : 19th July'2019

Test Required : Comprehensive Analysis

Report No. and Date : CAR - 19/212, 19th July'2019

Sub-contracting of Analysis : None

TEST RESULT

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
1	Physical State	-	Visual observation	Wet solid	-
2	Color	-	Visual observation	Grey	-
3	Texture	-	Visual observation	Cake	-
4	Reactive Cyanide	mg/kg	SW-846 : Ch. 7 (7.3.3), 9014	< 1.00	-
5	Reactive Sulfide	mg/kg	SW-846 : Ch. 7 (7.3.4), 9034	< 5.00	-
6	Cyanide - Total	mg/kg	SW-846 : 9010B, 9014	< 1.00	-
7	Cyanide - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-CN C SW-846 : 9014	< 0.05	< 2.0
8	Fluoride - Total	mg/kg	Std. Methods : 4500-F B, D	< 1.00	-
9	Fluoride - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500F B, D	< 1.00	< 50.0
10	Nitrate - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NO ₃ E	< 0.10	< 30.0
11	Ammonia - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NH ₃ B, C	< 5.00	< 1000.0
12	Arsenic - Total	mg/kg	SW-846 : 3050B Std. Methods:3500-As B :2017	< 1.00	-
13	Arsenic - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods:3500-As B :2017	< 0.10	< 1.0
14	Mercury - Total	mg/kg	SW-846 : 7471A Std. Methods : 3112 B :2017	NA	-
15	Mercury - WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Std. Methods : 3112 B :2017	NA	< 0.10
16	Vanadium - Total	mg/kg	SW-846 : 3050B, 7910	NA	-
17	Vanadium - WLT	mg/L	SW-846 : 3010A, 7910	NA	< 0.20 *
18	Benzene	mg/L	GC-MS	NA	< 0.50

19	Carbon tetrachloride	mg/L	GC-MS	NA	< 0.50
20	Chlordane	mg/L	GC-MS	NA	< 0.03
21	Chlorobenzene	mg/L	GC-MS	NA	< 100.0
22	Chloroform	mg/L	GC-MS	NA	< 6.0
23	o-, m-, p-Cresol	mg/L	GC-MS	NA	< 200.0 each
24	Endrin	mg/L	GC-MS	NA	< 0.02
25	Ethyl Methyl Ketone	mg/L	GC-MS	NA	< 200.0
26	Heptachlor (and its epoxide)	mg/L	GC-MS	NA	< 0.008
27	Hexachlorobenzene	mg/L	GC-MS	NA	< 0.13
28	Hexachlorobutadiene	mg/L	GC-MS	NA	< 0.50
29	Hexachloroethane	mg/L	GC-MS	NA	< 3.0
30	Indene	mg/L	GC-MS	NA	< 0.40
31	Methoxychlor	mg/L	GC-MS	NA	< 10.0
32	Nitrobenzene	mg/L	GC-MS	NA	< 2.0
33	Pentachlorophenol	mg/L	GC-MS	NA	< 100.0
34	Pyridine	mg/L	GC-MS	NA	< 5.0
35	Tetrachloroethylene	mg/L	GC-MS	NA	< 0.70
36	Toxaphene	mg/L	GC-MS	NA	< 0.50
37	Trichloroethylene	mg/L	GC-MS	NA	< 0.50
38	Vinyl Chloride	mg/L	GC-MS	NA	< 0.20
39	1,1-Dichloroethylene	mg/L	GC-MS	NA	< 0.70
40	1,2-Dichloroethane	mg/L	GC-MS	NA	< 0.50
41	1,4-Dichlorobenzene	mg/L	GC-MS	NA	< 7.50
42	2,4-D	mg/L	GC-MS	NA	< 10.0
43	2,4-Dinitrotoluene	mg/L	GC-MS	NA	< 0.13
44	2,4,5-TP (Silvex)	mg/L	GC-MS	NA	< 1.0
45	2,4,5-Trichlorophenol	mg/L	GC-MS	NA	< 400.0
46	2,4,6-Trichlorophenol	mg/L	GC-MS	NA	< 2.0

GC-MS report would be provided later in separate sheet.

Note:

CPCB – Central Pollution Control Board

WLT – Water Leaching Test

TCLP – Toxicity Characteristics Leaching Procedure

ASTM – American Society for Testing and Materials

IS – Indian Standard

SW 846 – Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA, May 1997

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DIN : 38414 Part 4 (S4) – German Standard Procedure for Water, Wastewater, and Sediment Testing-Group S (Sludge and Sediment);

Determination of Leachability (S4), 1984

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Sushant Paul
(Chemist – Lab.)
Checked by

Tarun Kumar Middya
Tarun Kumar Middya
(Asst. Manager – Lab.)
Authorized Signatory



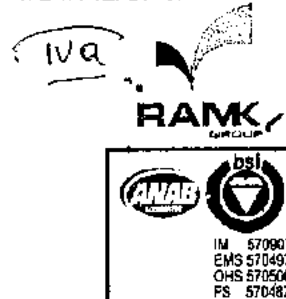
NABL
Accredited Laboratory
Certificate No. : TC-7471
ULR - TC747119000000350P

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)
J.L. No. : 103, Mouza : Purba Srikrishnapur
P.S. : Sutahata, Haldia - 721635
Dist. : Purba Midnapore, State : West Bengal
T : 03224-278238/39, Fax : 278240
E-mail : laboratorywbwml@ramky.com

LABORATORY
(Recognized by WBPCB)

WBWML/GP/LAB-310



TEST REPORT

Name and Address of Customer : M/s MCC PTA India Corp Pvt. Ltd.
Vill. & P.O.- Bhuniarachak. Via:- Sutahata (Hadia) Purba
Midnapore.W.B.721635

Sample Description : WWTP sludge
Sample Collected by : WBWML
Date of Sampling : 5th June'2019
Sample Registration No. and Date : CA - 19/213, 10th July'2019
Sample Receipt Condition : Sample recd. in plastic pouch.
Analysis Starting Date : 10th July'2019
Analysis Completion Date : 19th July'2019
Test Required : Comprehensive Analysis
Report No. and Date : CAR - 19/213, 19th July'2019
Sub-contracting of Analysis : None

TEST RESULT

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
1	Bulk Density	Gm/cc	ASTM Std. : D 5057 - 10	0.99	-
2	Paint Filter Liquid Test	-	SW-846 : 9095 A	Pass	Pass
3	pH (at 25.0°C)	-	USEPA 1998,SW-846 : 9045C	7.38	4.0-12.0
4	Calorific Value	kcal/kg	IS : 1350 (Part II) - 1975 (RA 2010)	4363.0	< 2600.0
5	Flash Point	°C	USEPA 1998,SW-846 : 1020A	> 60	> 60.0
6	Loss on Drying at 103-105 °C	% (w/w)	Std. Methods : 2540 G : 2017	89.79	-
7	Loss on Ignition at 550 °C (Dry Basis)	% (w/w)	Std. Methods : 2540 G : 2017	98.23	< 20.0 (non-biodegradables) < 5.0(biodegradables)
8	Water Soluble Organics	% (w/w)	DIN : 38414 Part 4 (S4) Std. Methods : 2540 E : 2017	1.58	< 10.0
9	Oil and Grease (As n-Hexane Extractable)	% (w/w)	USEPA 1998,SW-846 : 9071A	< 1.00	< 4.0
10	Cadmium - Total	mg/kg	USEPA 1998,SW-846 :7000 B	2.02	-
11	Cadmium - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.02	< 0.20
12	Cadmium - TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	0.02	< 1.00
13	Chromium - Total	mg/kg	USEPA 1998,SW-846 :7000 B	21.30	-
14	Chromium (VI) - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods:3500-Cr B :2017	< 0.20	< 0.50
15	Chromium - TCLP	mg/L	USEPA 1998, SW-846 : 1311	< 0.20	< 5.0

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
16	Copper – Total	mg/kg	USEPA 1998, SW-846 :7000 B	7.10	–
17	Copper – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.02	< 10.0
18	Lead – Total	mg/kg	USEPA 1998, SW-846 :7000 B	56.51	–
19	Lead – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.20	< 2.0
20	Lead – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	< 0.20	< 5.0
21	Nickel – Total	mg/kg	SW-846 : 3050B, 7000 B	35.34	–
22	Nickel – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.15	< 3.0
23	Zinc – Total	mg/kg	USEPA 1998, SW-846 :7000 B	16.81	–
24	Zinc – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.03	< 10.0
25	Phenol – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	< 100.0

Note:

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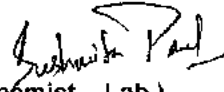
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Determination of Leachability (S4), 1984

NA – Not Analyzed, ND – Not Detected

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(Chemist – Lab.)
Checked by


Tarun Kumar Mirdya
(Asst. Manager – Lab.)
Authorized Signatory

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)

J.L. No. : 103, Mouza : Purba Srikrishnapur

P.S. : Sutahata, Haldia - 721635

Dist. : Purba Midnapore, State : West Bengal

T : 03224-278238/39, Fax : 278240

E-mail : laboratorywbwml@ramky.com

LABORATORY**(Recognized by WBPCB)**

WBWML/OP/LAB-31V

**TEST REPORT**

Name and Address of Customer : M/s MCC PTA India Corp Pvt. Ltd.
 Vill. & P.O.- Bhuniaraichak. Via: Sutahata (Haldia) Purba Midnapore

Sample Description : WWTP sludge

Sample Collected by : WBWML

Date of Sampling : 5th July'2019

Sample Registration No. and Date : CA - 19/213, 10th July'2019

Sample Receipt Condition : Sample recd. in plastic pouch.

Analysis Starting Date : 10th July'2019

Analysis Completion Date : 19th July'2019

Test Required : Comprehensive Analysis

Report No. and Date : CAR - 19/213, 19th July'2019

Sub-contracting of Analysis : None

TEST RESULT

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
1	Physical State	-	Visual observation	Wet solid	-
2	Color	-	Visual observation	Brown	-
3	Texture	-	Visual observation	Cake	-
4	Reactive Cyanide	mg/kg	SW-846 : Ch. 7 (7.3.3), 9014	< 1.00	-
5	Reactive Sulfide	mg/kg	SW-846 : Ch. 7 (7.3.4), 9034	< 5.00	-
6	Cyanide - Total	mg/kg	SW-846 : 9010B, 9014	< 1.00	-
7	Cyanide - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-CN ⁻ C SW-846 : 9014	< 0.05	< 2.0
8	Fluoride - Total	mg/kg	Std. Methods : 4500-F ⁻ B, D	< 1.00	-
9	Fluoride - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500F ⁻ B, D	< 1.00	< 50.0
10	Nitrate - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NO ₃ ⁻ E	< 0.10	< 30.0
11	Ammonia - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NH ₃ B, C	< 5.00	< 1000.0
12	Arsenic - Total	mg/kg	SW-846 : 3050B Std. Methods:3500-As B :2017	< 1.00	-
13	Arsenic - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods:3500-As B :2017	< 0.10	< 1.0
14	Mercury - Total	mg/kg	SW-846 : 7471A Std. Methods : 3112 B :2017	NA	-
15	Mercury - WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Std. Methods : 3112 B :2017	NA	< 0.10
16	Vanadium - Total	mg/kg	SW-846 : 3050B, 7910	NA	-
17	Vanadium - WLT	mg/L	SW-846 : 3010A, 7910	NA	< 0.20 *
18	Benzene	mg/L	GC-MS	NA	< 0.50

Towards sustainable growth

19	Carbon tetrachloride	mg/L	GC-MS	NA	< 0.50
20	Chlordane	mg/L	GC-MS	NA	< 0.03
21	Chlorobenzene	mg/L	GC-MS	NA	< 100.0
22	Chloroform	mg/L	GC-MS	NA	< 6.0
23	o-, m-, p-Cresol	mg/L	GC-MS	NA	< 200.0 each
24	Endrin	mg/L	GC-MS	NA	< 0.02
25	Ethyl Methyl Ketone	mg/L	GC-MS	NA	< 200.0
26	Heptachlor (and its epoxide)	mg/L	GC-MS	NA	< 0.008
27	Hexachlorobenzene	mg/L	GC-MS	NA	< 0.13
28	Hexachlorobutadiene	mg/L	GC-MS	NA	< 0.50
29	Hexachloroethane	mg/L	GC-MS	NA	< 3.0
30	Indene	mg/L	GC-MS	NA	< 0.40
31	Methoxychlor	mg/L	GC-MS	NA	< 10.0
32	Nitrobenzene	mg/L	GC-MS	NA	< 2.0
33	Pentachlorophenol	mg/L	GC-MS	NA	< 100.0
34	Pyridine	mg/L	GC-MS	NA	< 5.0
35	Tetrachloroethylene	mg/L	GC-MS	NA	< 0.70
36	Toxaphene	mg/L	GC-MS	NA	< 0.50
37	Trichloroethylene	mg/L	GC-MS	NA	< 0.50
38	Vinyl Chloride	mg/L	GC-MS	NA	< 0.20
39	1,1-Dichloroethylene	mg/L	GC-MS	NA	< 0.70
40	1,2-Dichloroethane	mg/L	GC-MS	NA	< 0.50
41	1,4-Dichlorobenzene	mg/L	GC-MS	NA	< 7.50
42	2,4-D	mg/L	GC-MS	NA	< 10.0
43	2,4-Dinitrotoluene	mg/L	GC-MS	NA	< 0.13
44	2,4,5-TP (Silvex)	mg/L	GC-MS	NA	< 1.0
45	2,4,6-Trichlorophenol	mg/L	GC-MS	NA	< 400.0
46	2,4,6-Trichlorophenol	mg/L	GC-MS	NA	< 2.0
47	Carbon	%(w/w)	CHNS - CI Analyzer	44.01	-
48	Hydrogen	%(w/w)	CHNS - CI Analyzer	3.96	-
49	Nitrogen	%(w/w)	CHNS - CI Analyzer	0.41	-
50	Sulphur	%(w/w)	CHNS - CI Analyzer	0.27	-

GC-MS report would be provided later in separate sheet.

Note:

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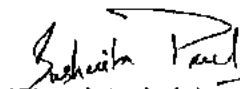
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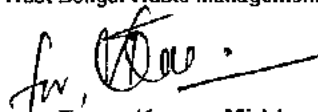
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(Chemist - Lab.)
Checked by


for,
Tarun Kumar Midya
(Asst. Manager - Lab.)
Authorized Signatory

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TEST REPORT

Name & Address of the Customer :
'MCPI PRIVATE LIMITED'
Haldia ,Purba Mednipur
Pin- 721635, West Bengal, India

Report No. : WB/ED-6718
Date : 11.12.2018
Sample No. : MSKGL/ED/2018-19/11/01126
Sample Description : Used Oil
Sample Drawn on : 22.11.2018

Reference No. & Date: 4500058512, Dtd: 09.11.2018

ANALYSIS RESULT

<u>SI No.</u>	<u>Test Parameters</u>	<u>Maximum Permissible Limit</u>	<u>Result</u>
1.	Polychlorinated biphenyls (as PCB) in ppm	<2	<1.0
2.	Cadmium + Chromium+ Nickel in ppm	500	<0.2
3.	Lead in ppm	100	<0.2
4.	Arsenic in ppm	5	<0.2
5.	PAH in %	6	<0.01

Report Prepared By 

for Mitra S. K. Private Limited


Authorised Signatory

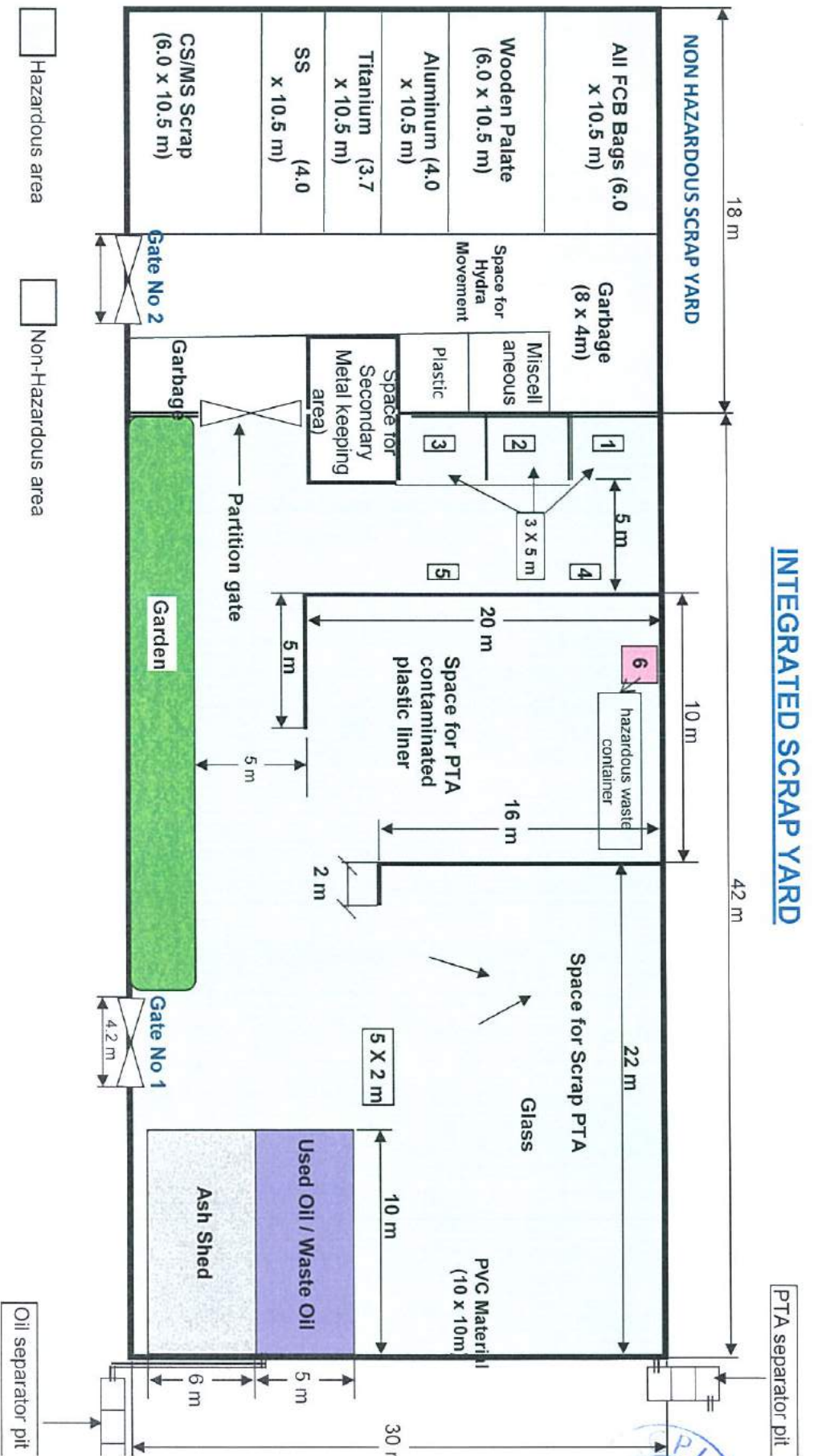
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- This Test Report shall not be reproduced except in full, without the Permission of Mitra S.K. Private Limited.

Head Office: Shracl Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016, West Bengal, India.
Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650088
Email : info@mitrask.com. Website: www.mitrask.com

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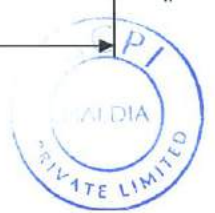


INTEGRATED SCRAP YARD



- | | |
|---|--|
| 1 | Space for Lead Acid Battery |
| 2 | Space for asbestos cloth & CAF gasket |
| 3 | Space for Empty paint & dye penetration containers |

- | | |
|---|---|
| 4 | Space for Rejected water treatment resin |
| 5 | Space for undeclared hazardous wastes |
| 6 | Allotted for oil & chemical soaked cotton waste |



(11) b

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of pollution.

MCPI'S Corporate Principle is:

To contribute to the economy and society of India through its business activities, establishing the interrelationship among people, society and nature.

MCPI has full-fledged **Safety, Health & Environmental Policy**. The SH&E Policy is enclosed as **Annexure - Va**

Following actions have been implemented for waste reduction & improving environmental compliance:

1. PTA Manufacturing Process Technology employs the following:
 - Low utility consumption as by-produced energy even in a low level from the process is effectively recovered.
 - High yield of PTA from Paraxylene
 - Low acetic acid & catalyst consumption
 - Process with stable operation.
 - Recovery & recycling of by-products.

2. By-product Steam is used for driving low-pressure steam turbine & the off-gas from the paraxylene oxidation reactor is used for driving off-gas expander. Around 10 MW of power is generated from by produced steam & off-gas. Process air compressor, which requires around 15 MW of power is furnished with a motor & coaxially equipped with the steam turbine & the gas expander. Thus by-produced energy is effectively & efficiently recovered & reused for running the Air compressor. This also means reduction in use & conservation of natural resources ie Furnace oil.

3. Waste water (Process & domestic) is treated by extended activated sludge treatment (Diffused aeration system) with sludge cooler before discharge to the river so that treated effluent is well below the permissible limit so as to minimize any adverse effect on the aquatic life of the river. Waste water treatment plant is continuously monitored through DCS (Distributed Control System).



4. Off gas from the para-xylene oxidation reactor is used for generating steam and for recovery of heat by passing through various heat exchangers. The acetic acid vapors is condensed & recycled back to the oxidation reactor thereby reducing the consumption of acetic acid which leads to reduction in resource consumption.
5. Low NOx burner is used in Boiler & Hot oil for minimizing NOx emission. Low NOx DEG are used for power generation
6. Adequate stack height for all emission so that GLC (Ground level concentration) of pollutant is well within the permissible limit. NOx reduction from DEG & Incinerator in the expansion plant through diffusion & dispersion by providing increased stack height.
7. From 1st Octboer-2013 onwards both incinerators are kept under shutdown.
8. Electrostatic precipitator (ESP) installed for controlling dust emission from the incinerator.
9. Suitable scrubbers are provided to decrease the level of organic pollutant in negligible range before emission.
10. On-line stack monitoring devices installed for both plants and continuous emission monitoring data is transferring to CPCB/WBPCB servers.
11. Storage tanks are provided for holding & storing influent before being feed to the ETP.
12. Greenbelt (around 33% of the total plant land) has been developed surrounding the factory for minimizing the effect of pollution & increasing aesthetic aspects. Yearly maintenance & development of the existing green belt are undertaken. At present, around 70000 trees are available. Moreover, a water body of capacity 3.5 lakh m³ also exists. **Refer Annex-Vb**



13. Effluent & Storm water drains are segregated. In case of any spillage of chemicals in process section it is led into the underground sump pits from where it is fed to the ETP at a controlled rate for treatment.

14. Treated effluent from ETP after continuous monitoring of pH, COD, BOD & TSS is discharged to the river. New & dedicated waste water treatment plant with Equalization tank installed for the new plant. Both the waste water treatment plant is DCS controlled & on-line monitoring devices are installed at various stages. Installed on-line effluent monitoring system at the final discharge. Continuous treated effluent monitoring data is transferring to CPCB server.

15. Integrated Scrap yard for storing Hazardous as well as Non-hazardous solid waste has been constructed & in operation. Final disposal of hazardous waste is being done through TSDF at Haldia.

16. Double sealed equipment; mono pumps have been installed in highly volatile organic chemicals handling equipment in Expansion project to reduce VOC leaks at source

17. Resource Conservation

- a) Furnace oil consumption reduction by
 - PTA product quality optimization.
 - Hot oil heater burner replacement at periodic interval.
- b) Steam turbine/Gas expander capacity utilization of Air compressor section has resulted in Electricity consumption decrease.
- c) Used & Waste Oil is being periodically disposed off through Registered Recycler & Reprocessor. Initiative taken for Re-processing & taking back the contaminated Heat Transfer Oil into our system.

18. Energy Conservation

As the process technology itself is such that steam is generated as a by-product so it is effectively & efficiently used. Boiler is only



required during Start up & Shut down of the process for steam generation.

- As a part of Energy conservation, Energy conservation committee has been formed in different buildings & Energy manager appointed. Several action plans have been formulated for energy savings
- Furnace oil (FO) consumption reduction per ton of production in the expansion plant is about 20 % less compared to the existing plant. Old plant DEG operation stopped from April'15, as using grid power for plant operation.
- More energy efficient light and motors have been installed.
- More energy efficient and highly modernized Air compressor is installed in expansion project.
- Awareness Campaign done on energy conservation at plant and company residential complexes.





HEALTH, SAFETY & ENVIRONMENT (HSE) POLICY

Health & Safety Policy

1. Safety comes first in all operations.
2. Obey and comply with all applicable Legal & other requirements.
3. Conduct entire operation in a way to prevent injury & ill health.
4. Develop & improve awareness on Safety & Health.
5. Develop, follow & improve the Safety & Health standards and procedures.
6. Monitor the company's Safety & Health management and performance for continual improvement.

Environment Policy

1. Minimize any adverse Environmental impact from all operations.
2. Obey and comply with all applicable legal & other requirements.
3. Conduct entire operation in a way to prevent pollution.
4. Develop & improve awareness on Environment.
5. Assess in advance the environmental impact for any new development.
6. Monitor the company's environmental performance for continual improvement.

Objective

Conduct entire operations :

1. Accident free.
2. Protecting the health of all concerned.
3. Zero adverse impact on Environment.
4. Legal requirement compliance.
5. Continual improvement.

MCPI Private Limited

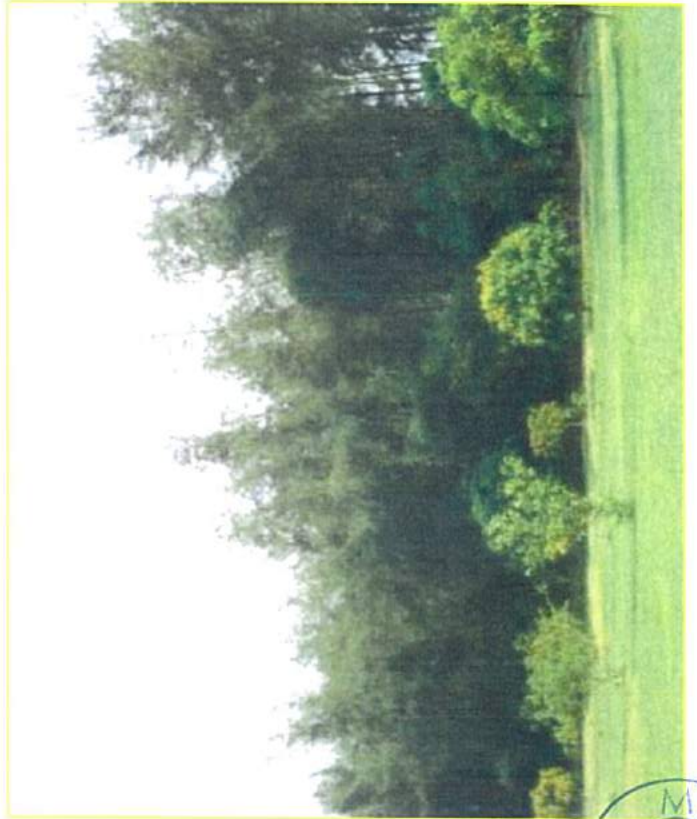
Occupier

September 12, 2017



Glimpses of MCPI Green belt

Annexure-Vb



Annexure-Vb



Additional measures/investment proposal for environmental protection, abatement of pollution, prevention of pollution.

New Expansion Project:

- Some new PTA technology is being incorporated in this new project. The object are:
 - a) Better Environmental Compliance
 - b) Better Resource conservation
 - c) Energy Conservation
 - d) Reduction of fixed cost

Main highlights of the Project w.r.t Environmental protection are:

- i) Installation of Desulphurization units (Alkaline Scrubber) for SO_x reduction
 - ii) Off-gas burning unit for VOC reduction
 - iii) Azeotropic distillation to reduce COD load
 - iv) Incinerator & ESP with much higher design standard
 - v) Waste water Treatment plant
 - vi) Fluidized bed dryer
 - vii) Flash drying etc.
- Install Sedimentation cum Filtration Unit in the De-Sulphurisation Unit in order to separate SS before the ETP.
 - Co-processing of solid Hazardous waste (ETP & Process Sludge, Scrap PTA, PTA Liner, Oil & Chemical soaked cotton waste) with M/s Ambuja Cements Limited initiated and ongoing & now other cement industry M/s OCL India Ltd (Cement Unit) got the approval from Odisha State Pollution Control Board, now we are sending waste for Co-processing at M/s OCL India Ltd (Dalmia Cement Unit) – Odisha.
 - LDAR Monitoring has been done.
 - A Continuous On-line Ambient Air Monitoring Station has been installed within our premises and data is transferring to CPCB/ WBPCB servers.



- Continuous On-line stack emission monitoring system has been implemented in our old & new plant stacks on-line stack emission data is transferring to CPCB/ WBPCB servers.
- Continuous on-line effluent monitoring system has been installed at Final discharge outlet and on-line effluent monitoring data is transferring to CPCB server.

Hazardous Waste:

- All hazardous wastes are temporarily stored in Integrated Scrap Yard and finally disposed off through TSDF at Haldia periodically.

Green Belt:

- Around 3000 nos. of trees planted (Pollutant Attenuation Species) as a part of World Environment Day celebration in our existing & future green belt (**Ref-VI a**)

Emergency Preparedness:

- Adequate resources available for emergency tackling. MCPI have Mutual Aid agreement with IOC, HPL & PHBPL. Periodic emergency drills are conducted for maintaining highest level of preparedness.
- On-site Emergency mock drill conducted twice a year taking various probable scenarios for Emergency Preparedness.



WORLD ENVIRONMENT DAY 5TH JUNE 2019



Together We Can #Beatairpollution



Va



MCPI's Celebration of World Environment day 2019 at Shataku-1

Plantation by Plant head and SH-1 Family members





MCPI'S Celebration of World Environment day 2019 at Shataku-2

Plant head and SH-2 Family members





MCPI'S CELEBRATION OF WORLD ENVIRONMENT DAY -2019

Tableau inauguration & Sapling Distribution to surrounding community





MCPI'S CELEBRATION OF WORLD ENVIRONMENT DAY -2019

Plantation at Plant Main Gate Area



**Gathering of MCPI employees for Tree plantation at Main Gate area
Under the leadership of Mr. A.C.Mishra – Plant Head on 5th June'2019**



THANK YOU

Any other particulars for improving the quality of the environment

Re-certified to Integrated Management System (ISO-9001:2015, ISO-14001:2015 & OHSAS-18001:2007).

MCPI is a signatory of Responsible Care programmed. Published Responsible Care report.

MCPI have got First position in Environment Excellence Award – 2004 in Industry sector.

MCPI got second position in SHE award competition conducted by CII, Eastern Region in 2005.

MCPI got third position in National Safety Council Safety Award for the year 2006.

MCPI have got First position in Paryavaran Parirakshak Puraskar from Ramky Foundation – 2012 in Industry sector.

MCPI is also a member of District Crisis Group for Disaster management

MCPI have full- fledged Occupational Health center and manned round the clock. Periodic health checks up of all employees are conducted to ascertain the health status.

PLI Policy is being renewed periodically. Latest policy is enclosed.

Annexure- VIIa

Stack Monitoring, Ambient Air monitoring, Work zone monitoring (Static), are being conducted periodically by 3rd party.

MoEF's Half yearly compliance report for the existing as well as for the new expansion project being submitted as per schedule.



World Environment day celebrated on every 5th June for increasing the environmental awareness. Besides periodic awareness in-house training are conducted for increasing the environmental & Safety awareness among the employees. Also conducting Environmental awareness and training programs School and College students.

Japanese 5'S' model on Housekeeping has been adopted in our company since commercial production. The basic goal of the 5'S' system is to create clean, safe & work friendly environment by effective participation of all employees. In order to achieve the basic goal, Factory 5'S' committees for Housekeeping & improving the work environment have been formed. The action plan has been formulated starting with creating awareness within the employees followed by effective implementation & monitoring of 5'S' system by the respective departments. Regular 5'S' patrol & inter departmental audit in various sections of the plant are being conducted as per prepared schedule. The audit findings and counter measures for improvement of housekeeping standards are planned to implement in the meeting within specific target date. Every Friday of the week has been declared as 5'S' day and each member is responsible for cleaning his/her job area. As a part of 5'S' activity, regular cleaning of plant areas, drains & pits etc. are being done as per the schedule.

Quality Circle groups within the organization exist from various departments. These groups take different problem area in the working area including problems related to Safety, Health & Environment. These groups represent at regional, national as well as international levels.

MCPI have undertaken Corporate Social Responsibilities (CSR) programme which includes commitment towards society for better environment through various initiatives like- Medical camp, Book distribution to children, eye check up etc. **Annexure- VIIb**



RELIANCE**GENERAL
INSURANCE**

Branch Office: 5th Floor, Himalaya House,
38B, Chowringhee Road,
Kolkata - 700071.
Tel : +91 33 3028 3899
www.reliancegeneral.co.in

To,
MCPI PVT LTD.
Techna Building, 3rd Floor, Bengal ECO Intelligent Park,
Tower - 1, Block - EM, Plot no - 03, Sector - V,
Salt Lake City,
Kolkata - 700 091.

Dated- 17-12-2018

Dear Sir,

Sub: Letter of Cover

This is to state that we are in receipt of Rs. 30,000/- (Thirty Thousand only), vide NEFT transaction id – SBIN418349053004 dated 15/12/2018, towards premium for the following coverage as described below:

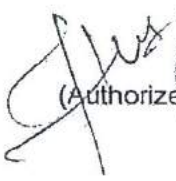

Coverage	:	Public Liability Act Policy
Projected Turnover	:	80,000,000,000/-
Net Premium	:	13,761/-
Add: GST @ 18%	:	2,477/-
Total Premium	:	30,000/-
ERF Premium	:	13,761/-
Limit of Indemnity	:	AOA: AOY = 50000000 : 150000000
Excess	:	As per Quote.

The risk stands covered for the period 17/12/2018 to 16/12/2019.

Policy will be issued shortly.

Thanking you and assuring you of our best services at all times

For Reliance General Insurance Co. Ltd.


(Authorized Signatory)




An ISO 9001:2008 Certified Company

Reliance General Insurance Company Limited,

Registered Office : H Block, 1st Floor, Dhirubhai Ambani Knowledge City, Navi Mumbai - 400710. Corporate Office: Reliance Centre, South Wing, 4th Floor, Off. Western Express Highway, Santacruz (East), Mumbai - 400 055. Corporate Identity Number (CIN): U66603MH2000PLC128300. Trade Logo displayed above belongs to Anil Dhirubhai Ambani Ventures Private Limited and used by Reliance General Insurance Company Limited under License.

A RELIANCE CAPITAL COMPANY

MCPI : CSR INITIATIVES ON ENVIRONMENT & HEALTH – 2018-19

VII-b

Environment
Awareness Program &
Plantation by MCPI
Members



Free EYE Treatment
for poor people
through VMA- Eye
Hospital.



Free Rural Medical
Camp & EYE Check up
Camp thro' IMA &
VMA –Eye Hospital.



Donation of
AMBULANCE to
Social Organizations to
serve needy villagers
donation to blind
students



CSR INITIATIVES ON EDUCATIONAL DEVELOPMENT IN LOCAL SCHOOLS – 2018-19

VII-b

Book Distribution amongst poor students.
Development of local Primary Schools :
Provision of Water line, Toilet, Drinking Water facilities with RO system



Donation of wooden COTS to the visually impaired Students in VMA – Model Residential School for Blind, Candle Making M/c. for Blinds



Health Awareness Program & Training for Safe Driving within vehicle crew members

