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

Ref. No.: WBPCB/09/21/ 1009 **Dated: 24.09.2021**

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 March2021

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 submitted Environmental Statement in Form V thorough online consent management & monitoring system portal (https://wbocmms.nic.in) on 16.09.2020. After submission through portal, we received Application No: **1044513** & Environmental Statement in Form-V. copy of online received Form-V attached for your ready reference. While submitting the information through online portal in Pat –F, G, H, & I we received error message, screen shot of error message is attached as **Attachment -1,** so without filling the Part F to I we submitted Form V then we received application number screen shot is attached as **Attachment -2** for your kind reference.

We are now submitting herewith two copies & one CD of Environment Statement for the PTA plant for the financial year ending **31st March'2021** (April'2020 - March'2021) 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) In-charge, MoEFCC, Kolkata Zonal Office.
2) Sr.Environmental Engineer, WBPCB, Haldia
3) In-charge, CPCB- Eastern Regional Office - Kolkata

Corporate Office: Bengal Eco Intelligent Park, Tower-1, 3rd Floor, Block-EM, Plot No.3, Salt Lake, Sector-V, Kolkata-700 091, India, Tel: +91 33 7112 2334/2445
Plant: Vill. & P.O. Bhuniaraichak, Via Sutahata (Haldia), Purba Medinipur, West Bengal-721 635, India, Tel: +91 3224 275572/5573, Fax: +91 3224 275574
CIN: U24299WB1997PTC088796

WEST BENGAL POLLUTION CONTROL BOARD

FORM V

(See Rule 14)

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

PART A

(i)	Name and address of the owner/ occupier of the industry operation or process	:	Debi Prasad Patra
(ii)	Industry category Primary-(STC Code) Secondary-(STC Code)	:	RED, Petrochemicals Manufacturing (including processing of Emulsions of oil and water)
(iii)	Production capacity	:	1370000 Tonnes
(iv)	Year of establishment	:	2000
(v)	Date of the last environment statement submitted	:	21/09/2020.

PART B

1. Water consumption m3/ d

Process : 7942.10

Cooling : 12417.10

Domestic : 381.20

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Purified Terephthalic Acid (PTA)	6.90Kl/ Ton of PTA	6.80Kl/Ton of PTA

2. Raw material consumption

Name of raw materials	Name of products	Consumption of raw material per unit	
		During the previous financial year	During the current financial year
Para-Xylene	Purified Terephthalic Acid (PTA)	0.65426	0.654878
Methanol	Purified Terephthalic Acid (PTA)	0.00180	0.001820
Acetic Acid	Purified Terephthalic Acid (PTA)	0.05099	0.053300
Hydrobromic Acid	Purified Terephthalic Acid (PTA)	0.00152	0.001509

Caustic Soda	Purified Terephthalic Acid (PTA)	0.00790	0.007236

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

PART C

Pollution discharged to environment/ unit of output.

Pollution	Quantity of pollutants discharged(mass/day)	Concentration of pollutants in discharges(mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	COD & BOD	63.58 & 12.26	Nil
(a) Air	Particulate Matter (PM) & CO	79.80 & 82.33	Nil

PART D

Hazardous Wastes

(as specified under Hazardous Wastes (Management and Handling) Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From process	1,27,04,113	1,15,44,360
(b) From pollution control facilities	17,980	4,960

PART E

Solid Wastes

	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From pollution control facility	Nil	Nil
(c)(1) Quantity recycled or re-utilised within the unit	Nil	Nil
(2) Sold	MS Drums 296 & HDPE drums 5408	MS Drums 72 & HDPE drums 5536
(3) Disposed	Nil	Nil

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 these categories of wastes .

PART G

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

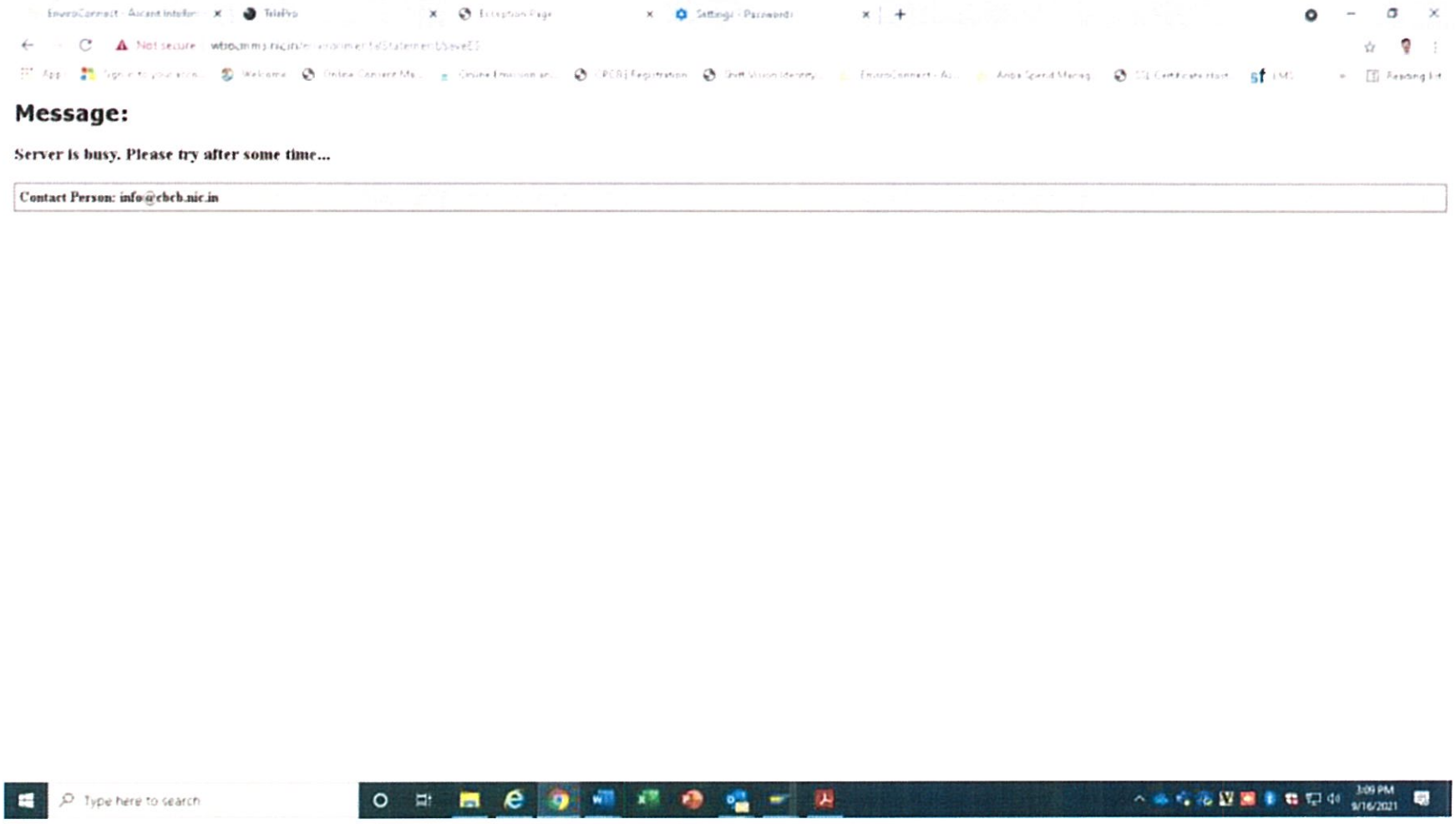
PART H

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

PART I

Any other particulars for improving the quality of the environment .

Attachment -1

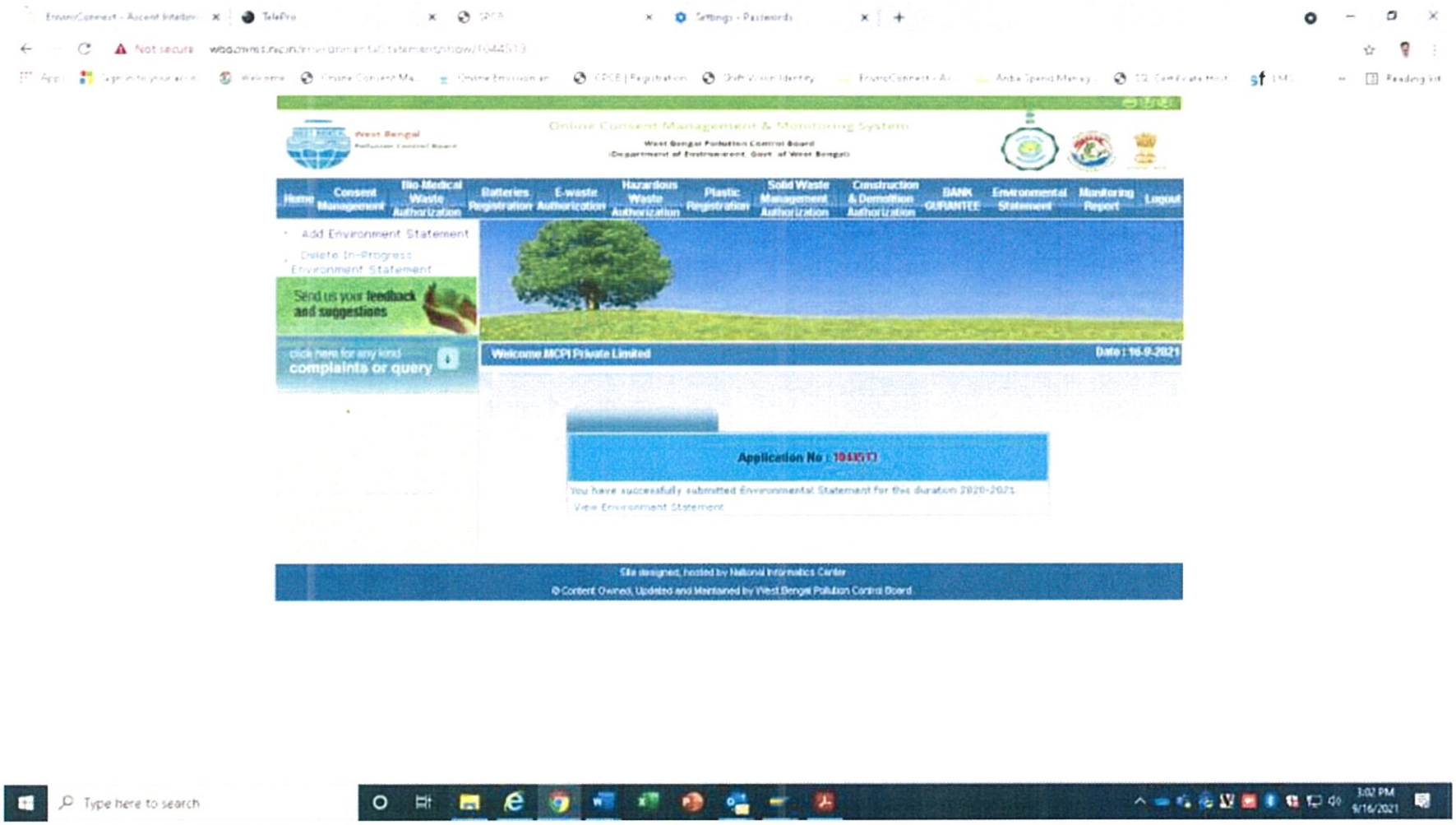


Message:

Server is busy. Please try after some time...

Contact Person: info@cbcb.nic.in

Attachment -2



FORM – V

(See Rule 14)

ENVIRONMENT STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2021

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 – Bhuniaraichak Via – Sutahata (Haldia) Purba Midnapore, W.B. Pin – 721635

II. Industry category – Primary (STC Code) – Secondary (STC Code)

III. Production capacity – **(114166.67) TPM of PTA (1370000 Tons / Year)**

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 – **21/09/2020**

PART – B

Water & Raw Material Consumption

I. Water consumption m^3/Day **(Actual Avg.)**

Process	7942.10	**M^3/Day**
Cooling	12417.10	**M^3/Day**
Domestic	381.20	**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 TEREPTHALIC ACID (PTA)**	**6.90 Kl/Ton of PTA** (Process water consumption includes cooling Water also.)	**6.80 Kl/Ton of PTA**

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	# 17980	# 4960

***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 Quantité (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: 296 HDPE: 5408	MS Drum: 72 HDPE: 5536
(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)	0.65426	0.654878
2. Methanol		0.00180	0.001820
3. Acetic acid		0.05099	0.053300
4. Hydrobromic acid		0.00152	0.001509
5. Caustic soda		0.00790	0.007236

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	393.18	63.58	Nil
BOD	167.19	12.26	Nil
O&G	26.81	01.99	Nil
F	8.67	00.64	Nil
Fe	5.48	00.40	Nil
Mn	7.94	00.57	Nil
TSS	82.19	06.03	Nil

Note: The final discharge flow rate is taken as 13573.30 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	238.99	79.80	Nil
CO	211.73	82.33	Nil

Annexure –IIIa

LIST OF HAZARDOUS WASTE
During April'20 to March'21

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	1.650 Ton	1.650 Ton	do
4	Empty paint & Dye penetration container	1.650 Ton	1.650 Ton	do
5	Oil & Chemical soaked cotton waste	2.780 Ton	2.780 Ton	do
6	De-Sox Ash	4.960 Ton	4.960 Ton	do
7	Mixture of Process & Utility Sludge (WWT sludge)	11544.36 Ton	11544.36 Ton	Temporarily stored in Incinerator pit and finally disposed through TSDF & Co-Processing
8	Rejected Water Treatment Resins	4.71	4.71	do
9	Asbestos cloth & CAF gasket	59.600	67.100	do
10	Molecular Sieve	0.00	0.00	do
11	Used Oil	10.152 Ton	10.152 Ton	Temporarily stored and finally disposed through authorized party (Registered recycler & reprocess or)
12	Waste Oil	3.050 Ton	3.050 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:

Annexure –IIIb

LIST OF HAZARDOUS WASTE

During April'19 to March'20

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	1.22 Ton	3.45Ton	do
4	Empty paint & Dye penetration container	1.65 Ton	1.65 Ton	do
5	Oil & Chemical soaked cotton waste	2.51 Ton	3.10 Ton	do
6	De-Sox Ash	20.44 Ton	17.98 Ton	do
7	Mixture of Process & Utility Sludge (WWT sludge)	12704.0 Ton	12704.0 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	15.72	6.75	do
10	Molecular Sieve	0.00	0.00	do
11	Used Oil	42.452	42.452	Temporarily stored and finally disposed through authorized party (Registered recycler & reprocess or)
12	Waste Oil	37.572 Ton	37.572 Ton	do
13	FO Sludge	0.00	0.00	do
14	Battery	470 nos	470 nos	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.

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

The sludge generated from Wastewater treatment plant is dehydrated in sludge decanter & dryer. The sludge from wastewater 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 previous Hazardous waste authorization are enclosed as **Annexure– IVa**. Authorization for storage and disposal of hazardous waste obtained from WBPCB valid up to year 2021, Renewal application for hazardous waste authorization renewal was submitted through online and hard copy also submitted to WBPCB on 03.02.2021. WBPCB receipt copy of renewal application is attached as Annexure- **IVc.** 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 is also stored in the scrap yard in separate locations and finally sold to scrap vendor.

Around 72 nos. of MS drums 5536 nos. of HDPE drums of Raw materials after decontamination/ cleaning have been sold to the outside vendor during the period April'20 – March'21.

Annexure-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 : wbpcbnet@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.

02.03.16.

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

Enclo.: *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

02.05.16

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

Annexure -IVc

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

Ref. No. : WBPCB/01/21/944

Dated: 27/01/2021

The Member Secretary
WB Pollution Control Board,
(Dept. of Environment, Govt. of W.B.)
Paribesh Bhawan, Bldg.10A, Block LA
Sector III, Salt Lake
Kolkata 700098

WEST BENGAL POLLUTION CONTROL BOARD
RECEIVED
3 FEB 2021
UNCHECKED
Saltlake, Kol-700 098

Sub: Hard copy of Application for Renewal of Hazardous Waste Authorization under Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016

Ref: Memo no. 84/2S (HW)-255/99-2000(Pt-II) Dated 03.03.2016

Dear Sir,

We would like to convey our sincere thanks and regards to you and your senior officials for providing us valuable guidance and continuous support for conducting our plant operation in a stable, safe and environmentally accepted manner.

Reference to the above, we have submitted on-line application for renewal of Hazardous waste Authorization having application number: **172131** and we paid an amount of **Rs.14,300/-** (Fourteen Thousand Two Hundred only) through online(Receipt **No: 21011485733541 date:14.01.2021**) towards fee for the renewal of Hazardous Waste Authorization for a period of 5 years. We are submitting herewith the hard copy of on-line submitted application in **Form-1**, paid fee receipt along with other relevant documents for your kind perusal.

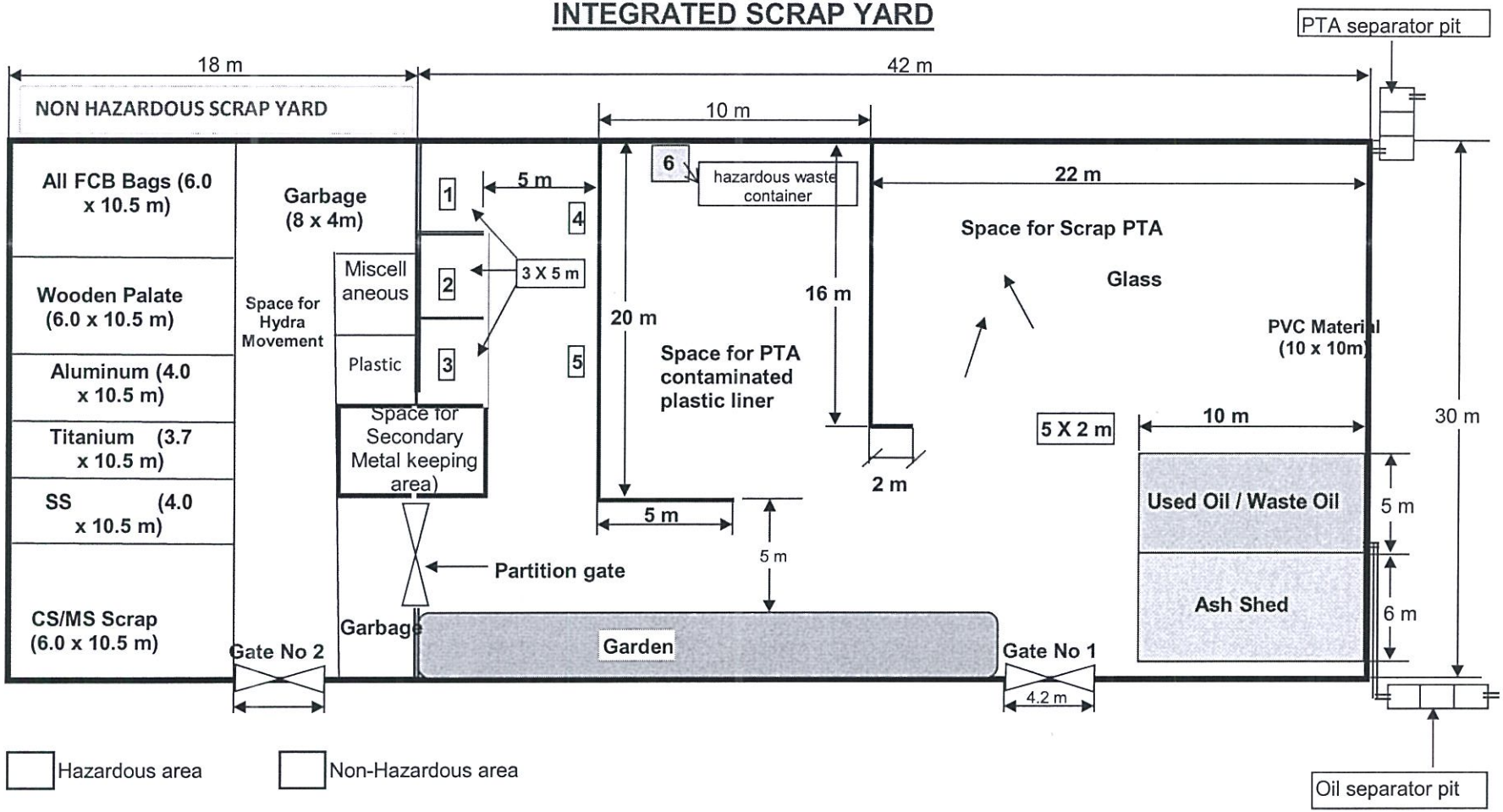
We believe that these will facilitate the process of renewal of authorization as mentioned in the subject.

Thanking you,

Yours faithfully,
For **MCPI Private Limited**

A.C.Mishra
Plant Head

INTEGRATED SCRAP YARD



Hazardous area Non-Hazardous area

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

6 m

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)

NABL
Accreditated Laboratory
Certificate No. : TC-7471
ULR – TC747119000000349P

IM 570907
EMS 570497
OHS 570500
FS 570487

TEST REPORT

Name and Address of Customer	:	M/s MCC PTA India Corp Pvt. Ltd. Vill. & P.O.- Bhuniaraichak. 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	91.78	–
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

Regd. Office : Jindal Towers, Block 'A' 4th Floor, 21/1A/3, Darga Road, Kolkata-700 017
Tel. : 033 2289 2527/28, Fax : (91) 033-2289 2529, E-mail : wbwml@ramky.com

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

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Sushmita Paul
(Chemist – Lab.)
Checked by

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

WBWML/QP/LAB-310

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)
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P.S. : Sutahata, Haldia - 721635
Dist. : Purba Midnapore, State : West Bengal
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E-mail : laboratorywbwml@ramky.com

LABORATORY

(Recognized by WBPCB)

IM 570907
EMS 570497
OHS 570500
FS 570487

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

Towards sustainable growth

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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	Pentachlorphenol	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
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

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Sushmita Paul
(Chemist – Lab.)
Checked by

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

WEST BENGAL WASTE MANAGEMENT LTD.

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E-mail : laboratorywbwml@ramky.com

LABORATORY

(Recognized by WBPCB)

NABL Accredited Laboratory

ULR – TC747120000000090F

IM 570907
EMS 570497
OHS 570500
FS 570487

TEST REPORT

Name and Address of Customer	:	M/s MCC PTA India Corp Pvt. Ltd. Vill. & P.O.- Bhuniaraichak. Via:- Sutahata (Hadia) Purba Midnapore.W.B.721635
Sample Description	:	De sox Ash.
Sample Collected by	:	WBWML
Date of Sampling	:	22nd February'2020
Sample Registration No. and Date	:	CA – 20/57, 2nd March'2020
Sample Receipt Condition	:	Sample recd. in plastic pouch.
Analysis Starting Date	:	2nd March'2020
Analysis Completion Date	:	6th March'2020
Test Required	:	Comprehensive Analysis
Report No. and Date	:	CAR - 20/57, 6th March'2020
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	1.10	–
2	Paint Filter Liquid Test	–	SW-846 : 9095 A	Pass	Pass
3	pH (at 25.0°C)	–	USEPA 1998,SW-846 : 9045C	6.86	4.0-12.0
4	Calorific Value	kcal/kg	IS : 1350 (Part II) – 1975 (RA 2010)	6667	< 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	77.46	–
7	Loss on Ignition at 550 °C (Dry Basis)	% (w/w)	Std. Methods : 2540 G : 2017	88.34	< 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	7.07	–
11	Cadmium – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.09	< 0.20
12	Cadmium – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods . 3111 B :2017	0.15	< 1.00
13	Chromium – Total	mg/kg	USEPA 1998,SW-846 :7000 B	300.41	–
14	Chromium (VI) – WLT	mg/L	DIN : 38414 Part 4 (S4) Std.Methods:3500-Cr B :2017	< 0.10	< 0.50
15	Chromium – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	< 0.20	< 5.0

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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	125.27	–
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	< 1.00	–
19	Lead – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.49	< 2.0
20	Lead – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	0.65	< 5.0
21	Nickel – Total	mg/kg	SW-846 : 3050B, 7000 B	14331.27	–
22	Nickel – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	1.27	< 3.0
23	Zinc – Total	mg/kg	USEPA 1998,SW-846 :7000 B	318.53	–
24	Zinc – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.10	< 10.0
25	Manganese - Total	mg/kg	USEPA 1998,SW-846 :7000 B	19.57	–
26	Manganese - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.01	< 10.0

Note:

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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
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(Chemist – Lab.)
Checked by

Tarun Kumar Middya
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Authorized Signatory

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T : 03224-278238/39, Fax : 278240
E-mail : laboratorywbwml@ramky.com
CIN : U90002WB2004PLC098219

IM 570907
EMS 570497
OHS 570500
FS 570487

LABORATORY

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	:	De sox Ash.
Sample Collected by	:	WBWML
Date of Sampling	:	22nd February'2020
Sample Registration No. and Date	:	CA – 20/57, 2nd March'2020
Sample Receipt Condition	:	Sample recd. in plastic pouch.
Analysis Starting Date	:	2nd March'2020
Analysis Completion Date	:	6th March'2020
Test Required	:	Comprehensive Analysis
Report No. and Date	:	CAR - 20/57, 6th March'2020
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	Black	–
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	Phenol – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	< 100.0
15	Mercury – Total	mg/kg	SW-846 : 7471A Std. Methods : 3112 B :2017	NA	–
16	Mercury – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Std. Methods : 3112 B :2017	NA	< 0.10
17	Vanadium – Total	mg/kg	SW-846 : 3050B, 7910	NA	–

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18	Vanadium – WLT	mg/L	SW-846 · 3010A, 7910	NA	< 0.20
19	Benzene	mg/L	GC-MS	NA	< 0.50
20	Carbon tetrachloride	mg/L	GC-MS	NA	< 0.50
21	Chlordane	mg/L	GC-MS	NA	< 0.03
22	Chlorobenzene	mg/L	GC-MS	NA	< 100.0
23	Chloroform	mg/L	GC-MS	NA	< 6.0
24	o-, m-, p-Cresol	mg/L	GC-MS	NA	< 200.0 each
25	Endrin	mg/L	GC-MS	NA	< 0.02
26	Ethyl Methyl Ketone	mg/L	GC-MS	NA	< 200.0
27	Heptachlor (and its epoxide)	mg/L	GC-MS	NA	< 0.008
28	Hexachlorobenzene	mg/L	GC-MS	NA	< 0.13
29	Hexachlorobutadiene	mg/L	GC-MS	NA	<0.50
30	Hexachloroethane	mg/L	GC-MS	NA	< 3.0
31	Indene	mg/L	GC-MS	NA	< 0.40
32	Methoxychlor	mg/L	GC-MS	NA	< 10.0
33	Nitrobenzene	mg/L	GC-MS	NA	< 2.0
34	Pentachlorphenol	mg/L	GC-MS	NA	< 100.0
35	Pyridine	mg/L	GC-MS	NA	< 5.0
36	Tetrachloroethylene	mg/L	GC-MS	NA	< 0.70
37	Toxaphene	mg/L	GC-MS	NA	< 0.50
38	Trichloroethylene	mg/L	GC-MS	NA	< 0.50
39	Vinyl Chloride	mg/L	GC-MS	NA	< 0.20
40	1,1-Dichloroethylene	mg/L	GC-MS	NA	< 0.70
41	1,2-Dichloroethane	mg/L	GC-MS	NA	< 0.50
42	1,4-Dichlorobenzene	mg/L	GC-MS	NA	< 7.50
43	2,4–D	mg/L	GC-MS	NA	< 10.0
44	2,4-Dinitrotoluene	mg/L	GC-MS	NA	< 0.13
45	2,4,5-TP (Silvex)	mg/L	GC-MS	NA	< 1.0
46	2,4,5-Trichlorophenol	mg/L	GC-MS	NA	< 400.0
47	2,4,6-Trichlorophenol	mg/L	GC-MS	NA	< 2.0
48	Carbon	%(w/w)	CHNS – CI Analyzer	61.26	–
49	Hydrogen	%(w/w)	CHNS – CI Analyzer	2.34	–
50	Nitrogen	%(w/w)	CHNS – CI Analyzer	1.94	–
51	Sulphur	%(w/w)	CHNS – CI Analyzer	1.26	–

Enclosed GC-MS Chromatogram D:\GC-MS Analysis - Solvent DCM\Data File\Single processing\CAR-20. 57 MCC PTA India Corp Pvt. Ltd.- De sox Ash. Qgd.

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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LABORATORY

(Recognized by WBPCB)

NABL
Accreditated Laboratory
ULR – TC747120000000088F

RAMKY GROUP

IM 570907
EMS 570497
OHS 570500
FS 570487

TEST REPORT

Name and Address of Customer	:	M/s MCC PTA India Corp Pvt. Ltd. Vill. & P.O.- Bhuniaraichak. Via:- Sutahata (Hadia) Purba Midnapore.W.B.721635
Sample Description	:	Empty paint container.**
Sample Collected by	:	WBWML
Date of Sampling	:	22nd February'2020
Sample Registration No. and Date	:	CA – 20/55, 2nd March'2020
Sample Receipt Condition	:	Sample recd. in plastic pouch.
Analysis Starting Date	:	2nd March'2020
Analysis Completion Date	:	6th March'2020
Test Required	:	Comprehensive Analysis
Report No. and Date	:	CAR - 20/55, 6th March'2020
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	0.90	–
2	Paint Filter Liquid Test	–	SW-846 : 9095 A	NA	Pass
3	pH (at 25.0°C)	–	USEPA 1998,SW-846 : 9045C	6.888	4.0-12.0
4	Calorific Value	kcal/kg	IS : 1350 (Part II) – 1975 (RA 2010)	6931	< 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	2.43	–
7	Loss on Ignition at 550 °C (Dry Basis)	% (w/w)	Std. Methods : 2540 G : 2017	89.42	< 20.0 (non-biodegradables) < 5.0(biodegradables)
8	Water Soluble Organics	% (w/w)	DIN : 38414 Part 4 (S4) Std. Methods : 2540 E : 2017	0.07	< 10.0
9	Oil and Grease (As n-Hexane Extractable)	% (w/w)	USEPA 1998,SW-846 : 9071A	3.19	< 4.0
10	Cadmium – Total	mg/kg	USEPA 1998,SW-846 :7000 B	2.85	–
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	0.06	< 1.00
13	Chromium – Total	mg/kg	USEPA 1998,SW-846 :7000 B	38.93	–
14	Chromium (VI) – WLT	mg/L	DIN : 38414 Part 4 (S4) Std.Methods:3500-Cr B :2017	< 0.10	< 0.50
15	Chromium – TCLP	mg/L	USEPA 1998, SW-846 : 1311 Std. Methods : 3111 B :2017	< 0.20	< 5.0

Towards sustainable growth

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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	< 1.00	–
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	18.43	–
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	7.33	–
22	Nickel – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.41	< 3.0
23	Zinc – Total	mg/kg	USEPA 1998,SW-846 :7000 B	< 1.00	–
24	Zinc – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	0.08	< 10.0
25	Manganese - Total	mg/kg	USEPA 1998,SW-846 :7000 B	< 1.00	–
26	Manganese - WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3111 B :2017	< 0.01	< 10.0

** – Report represents only for the paint contained / adhered inside container.

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

Sushmita Paul
(Chemist – Lab.)
Checked by

Tarun Kr. 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
P.S. : Sutahata, Haldia - 721635
Dist. : Purba Midnapore, State : West Bengal
T : 03224-278238/39, Fax : 278240
E-mail : laboratorywbwml@ramky.com
CIN : U90002WB2004PLC098219

IM 570907
EMS 570497
OHS 570500
FS 570487

LABORATORY

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	:	Empty paint container.
Sample Collected by	:	WBWML
Date of Sampling	:	22nd February'2020
Sample Registration No. and Date	:	CA – 20/55, 2nd March'2020
Sample Receipt Condition	:	Sample recd. in plastic pouch.
Analysis Starting Date	:	2nd March'2020
Analysis Completion Date	:	6th March'2020
Test Required	:	Comprehensive Analysis
Report No. and Date	:	CAR - 20/55, 6th March'2020
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	Dry solid	–
2	Color	–	Visual observation	Mixed colour	–
3	Texture	–	Visual observation	Tarry	–
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	Phenol – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	< 100.0
15	Mercury – Total	mg/kg	SW-846 : 7471A Std. Methods : 3112 B :2017	NA	–
16	Mercury – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Std. Methods : 3112 B :2017	NA	< 0.10
17	Vanadium – Total	mg/kg	SW-846 : 3050B, 7910	NA	–

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18	Vanadium – WLT	mg/L	SW-846 : 3010A, 7910	NA	< 0.20 *
19	Benzene	mg/L	GC-MS	NA	< 0.50
20	Carbon tetrachloride	mg/L	GC-MS	NA	< 0.50
21	Chlordane	mg/L	GC-MS	NA	< 0.03
22	Chlorobenzene	mg/L	GC-MS	NA	< 100.0
23	Chloroform	mg/L	GC-MS	NA	< 6.0
24	o-, m-, p-Cresol	mg/L	GC-MS	NA	< 200.0 each
25	Endrin	mg/L	GC-MS	NA	< 0.02
26	Ethyl Methyl Ketone	mg/L	GC-MS	NA	< 200.0
27	Heptachlor (and its epoxide)	mg/L	GC-MS	NA	< 0.008
28	Hexachlorobenzene	mg/L	GC-MS	NA	< 0.13
29	Hexachlorobutadiene	mg/L	GC-MS	NA	<0.50
30	Hexachloroethane	mg/L	GC-MS	NA	< 3.0
31	Indene	mg/L	GC-MS	NA	< 0.40
32	Methoxychlor	mg/L	GC-MS	NA	< 10.0
33	Nitrobenzene	mg/L	GC-MS	NA	< 2.0
34	Pentachlorphenol	mg/L	GC-MS	NA	< 100.0
35	Pyridine	mg/L	GC-MS	NA	< 5.0
36	Tetrachloroethylene	mg/L	GC-MS	NA	< 0.70
37	Toxaphene	mg/L	GC-MS	NA	< 0.50
38	Trichloroethylene	mg/L	GC-MS	NA	< 0.50
39	Vinyl Chloride	mg/L	GC-MS	NA	< 0.20
40	1,1-Dichloroethylene	mg/L	GC-MS	NA	< 0.70
41	1,2-Dichloroethane	mg/L	GC-MS	NA	< 0.50
42	1,4-Dichlorobenzene	mg/L	GC-MS	NA	< 7.50
43	2,4–D	mg/L	GC-MS	NA	< 10.0
44	2,4-Dinitrotoluene	mg/L	GC-MS	NA	< 0.13
45	2,4,5-TP (Silvex)	mg/L	GC-MS	NA	< 1.0
46	2,4,5-Trichlorophenol	mg/L	GC-MS	NA	< 400.0
47	2,4,6-Trichlorophenol	mg/L	GC-MS	NA	< 2.0
48	Carbon	%(w/w)	CHNS – CI Analyzer	59.10	–
49	Hydrogen	%(w/w)	CHNS – CI Analyzer	2.75	–
50	Nitrogen	%(w/w)	CHNS – CI Analyzer	6.21	–
51	Sulphur	%(w/w)	CHNS – CI Analyzer	1.01	–

Enclosed GC-MS Chromatogram D:\GC-MS Analysis - Solvent DCM\Data File\Single processing\CAR-20. 55 MCC PTA India Corp Pvt. Ltd.- Empty paint container. Qgd.

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

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(Chemist – Lab.)
Checked by

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

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

Sl No.	Test Parameters	Maximum Permissible Limit	Result
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.	Sulpher 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 item(s) tested.*
- *This Test RePort shall not be reProduced excePt in full, without the Permission of Mitra S.K. Private Limited.*

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

Sl No.	Test Parameters	Result
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.*

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

Sl No.	Test Parameters	Maximum Permissible Limit	Result
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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IVa

WEST BENGAL WASTE MANAGEMENT LTD.

(A Division of RAMKY Enviro Engineers Ltd.)
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P.S. : Sutahata, Haldia - 721635
Dist. : Purba Midnapore, State : West Bengal
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E-mail : laboratorywbwml@ramky.com

LABORATORY

(Recognized by WBPCB)

NABL
Accreditated Laboratory
Certificate No. : TC-7471
ULR – TC747119000000350P

IM 570907
EMS 570497
OHS 570500
FS 570487

TEST REPORT

Name and Address of Customer	:	M/s MCC PTA India Corp Pvt. Ltd. Vill. & P.O.- Bhuniaraichak. 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	< 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	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

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Tel. : 033 2289 2527/28, Fax : (91) 033-2289 2529, E-mail : wbwml@ramky.com

			Std. Methods : 3111 B :2017		
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:

CPCB – Central Pollution Control Board
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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
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(Chemist – Lab.)
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E-mail : laboratorywbwml@ramky.com

LABORATORY

(Recognized by WBPCB)

RAMKY GROUP

IM 570907
EMS 570497
OHS 570500
FS 570487

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

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Tel. : 033 2289 2527/28, Fax : (91) 033-2289 2529, E-mail : wbwml@ramky.com

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	Pentachlorphenol	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
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:
CPCB – Central Pollution Control Board
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TCLP – Toxicity Characteristics Leaching Procedure
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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

Sushmita Paul
(Chemist – Lab.)
Checked by

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

WEST BENGAL WASTE MANAGEMENT LIMITED

(A Division of RAMKY Enviro Engineers Ltd.)

J.L. no. – 103, Mouza – Purba Srikrishnapur, P.S. – Sutahata,
PIN – 721635, Haldia, Dist. – Purba Midnapore, West Bengal
Tel. – 03224-278238/9, Fax – 03224-278240
E-mail – laboratorywbwml@ramky.com

LABORATORY

COMPREHENSIVE ANALYSIS REPORT OF HAZARDOUS WASTE

Name of Generator	:	M/s MCC PTA India Corp. Pvt. Ltd.
Address of Generator	:	P. O. – Bhuniaraichak, Via – Sutahata, Haldia, Purba Midnapore
Sample Description	:	Mixture process and Utt sludge (DP)
Sample Collected by	:	WBWML
Date of Sampling	:	30th January 2012
Sample Registration No. and Date	:	CA – 12/030, 15th February 2012
Sample Receipt Condition	:	Sample received in plastic pouch
Report No. and Date	:	CAR – 12/030, 9th March 2012
Sub-contracting of Analysis	:	None

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	Light yellow	–
3	Texture	–	Visual observation	Cake	–
4	Bulk Density	gm/cc	ASTM Std. : D 5057 – 1990 (Reapproved 2001)	0.62	–
5	Paint Filter Liquid Test	–	SW-846 : 9095A	Pass	Pass
6	pH (at 30.0 °C)	–	SW-846 : 9040B, 9045C	2.67	4.0-12.0
7	Calorific Value	kcal/kg	IS : 1350 (Part II) – 1970 (Reaffirmed 1983)	6479	< 2500.0
8	Flash Point	°C	SW-846 : 1020A	> 60.0	> 60.0
9	Loss on Drying at 103-105 °C	% (w/w)	Std. Methods : 2540 G	68.24	–
10	Loss on Ignition at 550 °C (Dry Basis)	% (w/w)	Std. Methods : 2540 G	92.96	< 20.0 (non-biodegradables) < 5.0 (biodegradables)
11	Reactive Cyanide	mg/kg	SW-846 : Ch. 7 (7.3.3), 9014	< 1.00	–
12	Reactive Sulfide	mg/kg	SW-846 : Ch. 7 (7.3.4), 9034	< 5.00	–
13	Water Soluble Compounds Except Salts – In WLT Extract	% (w/w)	DIN : 38414 Part 4 (S4) Std. Methods : 2540 B, G	9.17	< 10.0
14	Oil and Grease (As n-Hexane Extractable)	% (w/w)	Std. Methods : 5520 E	82.72	< 4.0
15	Cyanide – Total	mg/kg	SW-846 : 9010B, 9014	< 1.00	–
15a	Cyanide – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-CN^- C SW-846 : 9014	< 0.05	< 2.0
16	Fluoride – Total	mg/kg	Std. Methods : 4500-F^- B, D	< 1.00	–
16a	Fluoride – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500F^- B, D	< 1.00	< 50.0
17	Nitrate – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NO_3^- E	< 0.10	< 30.0
18	Ammonia – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NH_3 B, C	< 5.00	< 1000.0

Corporate Office: REEL, TSR Tower, 4th Floor, B-Block, # 6-3-1090 • Rajbhavan Road • Somajiguda • Hyderabad – 500 082

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
19	Arsenic – Total	mg/kg	SW-846 : 3050B Std. Methods : 3500-As B	< 1.00	–
19a	Arsenic – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A Std. Methods : 3500-As B	< 0.10	< 1.0
20	Cadmium – Total	mg/kg	SW-846 : 3050B, 7130	< 1.00	–
20a	Cadmium – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7130	< 0.02	< 0.20
21	Chromium – Total	mg/kg	SW-846 : 3050B, 7190	17.04	–
21a	Chromium (VI) – WLT	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3500-Cr B	< 0.10	< 0.50
21b	Chromium – TCLP	mg/L	SW-846 : 1311 SW-846 : 3010A, 7190	< 0.20	< 5.0
22	Copper – Total	mg/kg	SW-846 : 3050B, 7210	< 1.00	–
22a	Copper – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7210	0.02	< 10.0
23	Lead – Total	mg/kg	SW-846 : 3050B, 7420	5.01	–
23a	Lead – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7420	< 0.20	< 2.0
24	Mercury – Total	mg/kg	SW-846 : 7471A Cold Vapor Mercury Analyzer	NA	–
24a	Mercury – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Cold Vapor Mercury Analyzer	NA	< 0.10
25	Nickel – Total	mg/kg	SW-846 : 3050B, 7520	8.61	–
25a	Nickel – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7520	0.26	< 3.0
26	Vanadium – Total	mg/kg	SW-846 : 3050B, 7910	NA	–
26a	Vanadium – WLT	mg/L	SW-846 : 3010A, 7910	NA	< 0.20 *
27	Zinc – Total	mg/kg	SW-846 : 3050B, 7950	4.93	–
27a	Zinc – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7950	0.26	< 10.0
28	Phenol – WLT	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	< 100.0

Enclosed GC-MS Chromatogram D:\GC-MS Analysis - Solvent DCM\Data File\Batch processing\CA - 12.030 MCC PTA - Mixture process and Utt sludge (DP).qgd

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, 21st Edition, APHA/AWWA/WEF, 2005

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

* – CPCB General Environmental Standard for Discharge of Effluent in Inland Surface Water Applies

NA – Not Analyzed

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

Checked by
(Chemist – Lab.)

Authorized Signatory
(Dy.Manager – Lab.)

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:

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. Wastewater 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.

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 wastewater treatment plant with Equalization tank installed for the new plant. Both the wastewater 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

September 12, 2017 **Occupier**

Glimpses of MCPI Green belt

Annexure-Vb

Annexure-Vb

REPORT ON WORLD ENVIRONMENT DAY-2021

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

WORLD ENVIRONMENT DAY

5 JUNE 2021

#GenerationRestoration

Due to COVID-19 pandemic situation this year World Environment Day celebrations restricted to Only Fruit Tree Plantation at Shataku-1 & 2 by maintaining COVID-19 guidelines.

- **This year No mass gathering for Plantation at Plant Green Belt.**
- **Sapling distribution and awareness programmes on environment to the surrounding communities are not conducted in this year.**
- **WED-21 banners are displayed at different locations in Plant, Shataku- 1 & 2.**
- **Appreciation gifts given to Gardening Workers at Shataku-1 & 2 by Plant Head.**
- **Fruit Tree (Mango) plantation done by Plant Head, Strategists, Leaders and other members at Shataku -1 & 2**

MCPI Support the

REIMAGINE RECREATE RESTORE

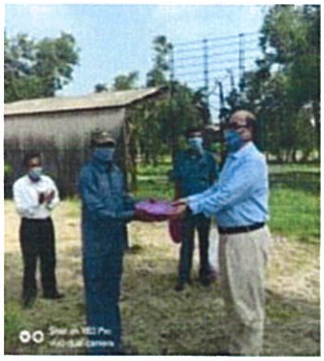
WORLD ENVIRONMENT DAY | UN environment programme 50 | PAKISTAN 2021

Fruit Tree Plantation - World Environment Day 2021 at Shataku-1







Support the

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

WORLD ENVIRONMENT DAY

5 JUNE 2021

#GenerationRestoration

Fruit Tree Plantation - World Environment Day 2021 at Shataku-2








Support the

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

WORLD ENVIRONMENT DAY

5 JUNE 2021

#GenerationRestoration

World Environment Day - 2021 Banners Displayed at Different Locations in Plant and Shataku-1 & 2

Support the

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

WORLD ENVIRONMENT DAY

5 JUNE 2021

#GenerationRestoration

THANK YOU

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 SOx 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) Wastewater 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 Annexure **- VIa**
-

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.

HDFC ERGO General Insurance Company Limited

June 03, 2021

Mcpi Private Limited

Bengal Eco Intelligence Park, Tower, 1, Block Em, Plot No3,Salt Lake City, Sector V, 3rd Floor, Kolkata, West Bengal-700091

Dear Customer,

Sub: Business Public Liability Insurance (Under PLI Act 1991) Policy No: 3133204166071500000

We thank you for having preferred us for your *Insurance* requirements. We at HDFC ERGO General Insurance believe ***"Insurance"*** as not only to be an assurance to indemnify in the event of unfortunate circumstances, but one that signifies protection and support, which you can count on when you need it most.

The Insurance Policy enclosed herewith is a written agreement providing confirmation of our responsibility towards you that puts insurance coverage into effect against stipulated perils.

Please note that the policy has been issued based on the information contained in the proposal form and / or documents received from you or your representative / broker.

Name of the Intermediary: Anviti Insurance Brokers Private Limited
Intermediary Code: 200445091293

Where the proposal form is not received, information obtained from you or your representative /broker, whether orally or otherwise, is captured in the policy document.

If you wish to contact us in reference to your existing policy and /or other general insurance solutions offered by us, you may write to our correspondence address as mentioned below. Alternatively, you may visit our website www.hdfcergo.com. To enable us to serve you better, you are requested to quote your Policy Number in all correspondences.

Thanking you once again for choosing HDFC ERGO General Insurance Company Limited and looking forward to many more years of association.

Yours sincerely,

Authorised Signatory

HDFC ERGO General Insurance Company Limited

Public Liability Insurance (Under PLI Act 1991)

SCHEDULE

Policy No: 3133204166071500000

Item 1.	**Insured**	:	Mcpi Private Limited
Item 2.	**Producer**	:	Anviti Insurance Brokers Private Limited
Item 3.	**Financial Interest**	:	Not Applicable
Item 4.	**Mailing address of the Insured**	:	Bengal Eco Intelligence Park, Tower, 1, Block Em, Plot No3,Salt Lake City, Sector V, 3rd Floor, Kolkata, West Bengal, 700091.
Item 5.	**Pan Card Number**	:	AAACM9169K
Item 6.	**Business**	:	Manufacturing
Item 7.	**Policy Period**	:	From 00:01 hours : 01 April 2021 To (Midnight) : 31 March 2022
Item 8.	**Premium**	:	Rs. 59,355.00
Item 9.	**Premium & Coverage Statement** Premium Computation Insurance Limits & Excess	:	Refer to Page 2

Item 10. Clauses, Conditions & Warranties :

Form Number	Form Name	Effective Date	Date Issued
PL-02-0032	Policy Schedule	1 April 2021	03 June 2021
PL-02-0031	Insurance contract	1 April 2021	03 June 2021
NA	Covering letter	01 April 2021	03 June 2021

Subject otherwise to terms and conditions of Public Liability Insurance Policy.

Signed for and on behalf of HDFC ERGO General Insurance Company Limited, on 03 June 2021

Authorised Signatory

GST Registration No: 19AABCL5045N1Z5. The contract will be cancelled ab intio in case; the consideration under the policy is not realized.

" The stamp duty of ` 0.50 paid by Demand Draft, vide Receipt/Challan no. CSD/362/2020/1302 dated 20/03/2020 as prescribed in Government of Maharashtra Order No. Mudrank-2017/CR.97/M-1, dated the 09th January 2018".

Note: Where the proposal form is not received, information obtained from insured, whether orally or otherwise, is captured in the policy document. Discrepancies, if any, in the information contained in the policy document may be pointed out by an insured within 15 days from the policy issue date after which information contained in the policy document shall be deemed to have been accepted as correct.

Branch	4th Floor, Block- C, 22 Camac Street Kolkatta, 700016. Tel.: +91-22-39883600

Warranties :

1) Warranted that there are no known losses and /or circumstances leading to losses (except for the claims and / or circumstances already reported to HDFC ERGO General Insurance Co. Ltd.

2) This policy document is issued basis the information provided though request for quotation and/ or unsigned proposal form and / or other details provided by the insured / insurance intermediary and/ or though discussions and our final quote sheet issued to you enabling the insurer to decide the terms and conditions of insurance contract.

Your are requested to inform us within 15 days of receipt of the policy document in the event of any error or omission in the information provided.

Broker Name : Anviti Insurance Brokers Private Limited
Broker Code : 200445091293

IMD Name	IMD Code	Co-Share
ANVITI INSURANCE BROKERS PRIVATE LIMITED	200445091293	70%
MARSH INDIA INSURANCE BROKERS PRIVATE LIMITED	200044558502	30%

Premium & Coverage Statement

(Item. 9 of Schedule, Attached to and forming part of Policy No: **3133204166071500000)**

Premium Computation

Premium Details	Amount (Rs.)
Net Premium	27,227.00
GST 18% : Central Tax 9% (Rs. 2450.43) + State Tax 9% (Rs. 2450.57)	4,901.00
Add: Contribution to Environment Relief Fund	27,227.00
Total Premium	59,355.00
Invoice Number :	1060300082071
GSTN :	19AAACM9169K1ZU
Place of Supply	**West Bengal**
SAC Code	**997139**

Insurance Limits & Excess

Insurance Limits

Details	Amount (Rs.)
Each Accident Insurance Limit	50,000,000.00
Aggregate Insurance Limit	150,000,000.00

Excess

Compulsory Excess	Not Applicable
Voluntary Excess	Not Applicable

Annexure – VII

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 awards 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.

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 is conducted for increasing the environmental & Safety awareness among the employees.

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) programmed which includes commitment towards society for better environment through various initiatives like- Medical camp, Book distribution to children, eye check up etc. **Annexure- VIIb**

MCPI : CSR INITIATIVES ON ENVIRONMENT & HEALTH – 2020-21

Environment Awareness Program & Plantation by MCPI Members

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

Donation of PPE to the Police during pandemic COVID-19, in MAY - 2020

CSR INITIATIVES ON EDUCATIONAL DEVELOPOMENT

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

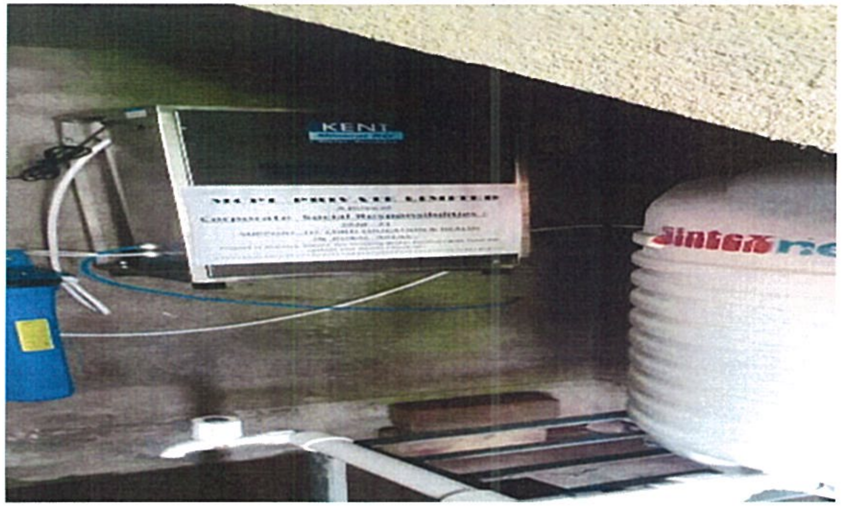
হলদিয়ার স্কুলে বুক ব্যাঙ্ক

নিজস্ব সংবাদদাতা, হলদিয়া: 'ক্ষুধার্ত মানুষ ধরো বই, ওটা তোমার হাতিয়ার।' সেই পরিচিত স্লোগান কেউ ওদের মধ্যে ঢুকিয়ে দিয়েছে। আর্থিক সমস্যা বই কেনার ক্ষেত্রে ভ্রুকুটি দেখালেও ওরা পিছপা হতে নারাজ। ভরসা স্কুলের বুক ব্যাঙ্ক। ভূগোল,বিজ্ঞান, অঙ্ক, ইতিহাস যে কোনো বই পাওয়ার মুশকিল আসান হয়ে যায়। হলদিয়ার জয়নগর হাইস্কুলের বুক ব্যাঙ্ক পড়ুয়াদের কাছে এমনি ভরসার জায়গা হয়ে উঠেছে। স্কুলের ইংরেজি সাহিত্যের শিক্ষক কানাই মহন্তের চেষ্টায় দু'হাজার আট সালে এই স্কুলে গড়ে ওঠে বুক ব্যাঙ্ক। সহযোগী হয়েছেন স্কুলের টিআইসি নিখিল সাহু সহ অন্যান্য শিক্ষক - শিক্ষিকাগন।

সেইসঙ্গে সহযোগিতার হাত বাড়িয়েছে এমসিপিআই প্রাইভেট লিমিটেড, হলদিয়া এনার্জি লিমিটেড, ধানসেরি সহ বেশ কিছু শুভানুধ্যায়ী। এমসিপিআই-য়ের পক্ষে কর্তা সঞ্জয় রাজগুরু তো বলেই ফেললেন, "ছাত্র-ছাত্রীদের পড়াশোনার কাজে আমরা সহযোগী হতে পেরে খুশি।" শিক্ষক কানাই মহন্ত বলেন, "দুঃস্থ পড়ুয়াদের কথা ভেবে আমরা দশ শতাংশ মূল্যে বই দিয়ে থাকি।"

GOVERNMENT OF WEST BENGAL GOVERNMENT OF WEST BENGAL

RO Installed for DRINKING WATER in local Primary School



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

CSR INITIATIVES ON Natural Disaster / Pandemic

Donation of Plastic Sheet/Tarpaulin to the poor villagers, through Haldia Municipality after natural disastrous - AMPHAN

Donation of FOOD materials by MCPI among poor villagers during Lock Down period arising out of pandemic COVID - 19

Donation of Isolation Beds to the Hospitals of district , through HDA-Haldia , during pandemic COVID -19