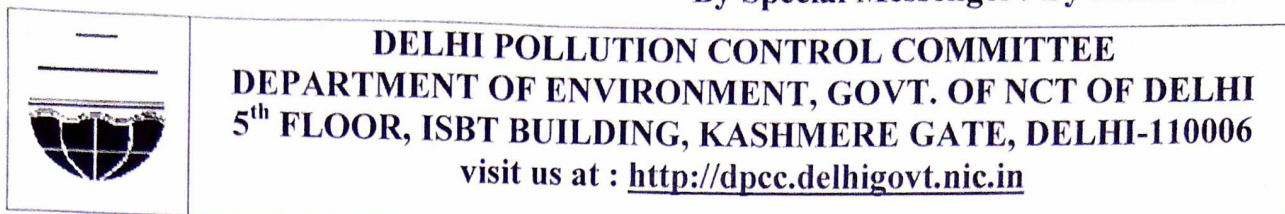


By Special Messenger / By Hand/ Email



F.No. DPCC/WMC-II/Annual Reports/C&D Waste/2018/3853-3855 Dated: 30/07/2020

To,

Smt. Divya Sinha,
Additional Director & Incharge UPC-II ,
Central Pollution Control Board, Parivesh Bhawan,
East Arjun Nagar, Delhi-110032

Sub: Annual Report in Form IV in respect of NCT of Delhi for the Year 2019-2020 on the Implementation of Construction and Demolition Waste Management Rules, 2016.

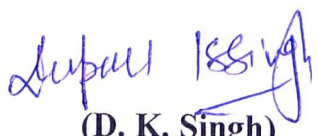
Madam,

Please find enclosed here with Annual Report in Form IV in respect of NCT of Delhi for the Year 2019-2020 on the Implementation of Construction and Demolition Waste Management Rules, 2016.

This issues with the approval of the Member Secretary, Delhi Pollution Control Committee.

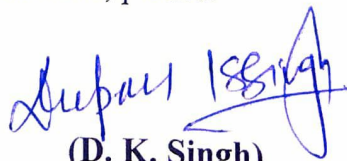
Yours Sincerely,

Enclosure : As Above


(D. K. Singh)
Sr.Env.Engineer(WMC-II)

Copy to :

1. The Secretary, Ministry of Housing and Urban Affairs, Govt. of India, Nirman Bhawan, C Wing, Maulana Azad Road, New Delhi-110011.
2. PS to Chairman, DPCC – For kind information to Chairman, please.


(D. K. Singh)
Sr.Env.Engineer(WMC-II)

FORM IV

[See rule 8(3)]

Annual Report in respect of NCT of Delhi for the Year 2019-2020 on the Implementation of Construction and Demolition Waste Management Rules, 2016.

To,

The Chairman
Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar
Delhi - 110 032

1.	Name of the State / Union territory	NCT of Delhi
2.	Name & address of the State Pollution Control Board / Pollution Control Committee	Delhi Pollution Control Committee, 5th Floor, ISBT Building, Kashmere Gate, Delhi-110006
3.	Number of municipal authorities responsible for management of municipal solid wastes in the State / Union territory under these rules	5 [North DMC, SDMC, EDMC, NDMC & DCB]
4.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule III	<u>Annexure - I</u> attached.
5.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule IV	There is no Schedule IV in the Construction and Demolition Waste Management Rules, 2016 however <u>Annexure – II</u> is attached as implementation of Schedule I & II.

Date : 30. 07.2020

Place : Delhi



Member Secretary

Delhi Pollution Control Committee

A Summary Statement on Progress made by Municipal Authorities in respect of Implementation of Schedule III of Construction and Demolition Waste Management Rules, 2016, for the Year 2019 – 2020.

Management of Construction and Demolition (C&D) Waste :

There are 5 Local Bodies / Municipal Corporations [3 Municipal Corporations (North DMC, EDMC & SDMC), New Delhi Municipal Council (NDMC) & Delhi Cantonment Board (DCB) in Delhi. Approximately 3900 TPD of Construction and Demolition Waste (C&D Waste) is generated in Delhi. Separate collection and transport infrastructure of C&D Waste has been set up under which the C&D Waste is collected at ear marked sites identified by the 3 Municipal Corporations (North DMC, EDMC & SDMC), NDMC & DCB and the same is transported to the 4 existing Construction and Demolition Waste Processing / Recycling Facilities / Plants functioning in Delhi. The existing capacity of the 4 operational Construction and Demolition Waste Processing / Recycling Facilities is 3650 TPD.

The existing Construction and Demolition Waste Processing Facilities & Proposed Expansion is briefed in following Table

Construction and Demolition Waste Processing Facilities & Proposed Expansion

S. No.	C & D Waste Processing Facility	Existing Capacity (in TPD)	Proposed Expansion for Additional Waste Processing Capacity (in TPD)
1	North DMC C & D Waste Processing Facility at Jahangir Puri (Being operated by IL&FS)	2000	---
2	East DMC C & D Waste Processing Facility at Shastri Park (Being operated by IL&FS)	500	500 (By March, 2021)
3	DMRC C & D Waste Processing Facility at DMRC Site Rani Khera (Being operated by IL&FS)	150	---
4.	C & D Waste Processing Facility at Bakkarwala (South DMC) (New Facility started operation in March, 2020)	1000	
	Total	3650	500

In these processing facilities, Paver Blocks, Kerb Stones, Bricks, Aggregates, Sand and Soil of BIS standards are being produced out of the C&D waste which is further used in the infrastructure projects, thus fresh requirement of natural resources is minimized. With the existing and proposed processing facilities, it is expected that the entire C&D waste generated in Delhi will be managed properly in a scientific manner.

Proposed New Construction and Demolition Waste Processing Facilities

S.No	Proposed Site of C& D Waste Processing Facility	Proposed Waste Processing Capacity (in TPD)
1	Maidangarhi (South DMC)	1000
2	Ranikhera (North DMC)	1000
3	Libaspur(PWD)	500
	Total	2500

Consent to Establish under the Air & Water Acts granted to M/s IL&FS Environmental Infrastructure and Services Ltd. for its new Construction and Demolition Waste Processing Facility of 1000 TPD at Rani Khera on 14.02.2020.

Consent to Operate under the Air & Water Acts and Authorization under the Construction and Demolition Waste Management Rules, 2016, were granted to M/s Garg & Company for its new Construction and Demolition Waste Processing Facility of 1000 TPD at Bakkarwala on 27.02.2020 and 18.03.2020 respectively. This Facility has started its operation in March, 2020.

Consent to Establish under the Air & Water Acts was granted to M/s IL&FS Environmental Infrastructure and Services Ltd. for expansion of its Construction and Demolition Waste Processing Facility at Shastri Park from 500 TPD to 1000 TPD on 23.10.2019. Consent to Operate under the Air & Water Acts and Authorization under the Construction and Demolition Waste Management Rules, 2016, have also been issued in respect of this plant on 17.03.2020.

Consent to Operate (Renewal) under the Air & Water Acts and Authorization (Renewal) under the Construction and Demolition Waste Management Rules, 2016, were granted to M/s IL&FS Environmental Infrastructure and Services Ltd. for its Construction and Demolition Waste Processing Facility at Jhangirpuri (Burari) on 25.02.2020.

Department of Urban Development, Govt. of NCT of Delhi has already issued Order Dated 06.07.2019 (Copy of Letter enclosed) regarding use of Recycled Products from C&D Waste including following measures to be taken for compliance by all Municipal / Local Govt. Bodies in Delhi, Public Works Department, Irrigation & Flood Control, DSIIDC, DJB & Departments and Organisations of GNCTD involved in Construction/Maintenance of Civil Works:

- (i) A minimum of 2% of C&D Recycled Products shall be used for building works.
- (ii) 10% of C&D Products shall be used for Road works.
- (iii) Urban Local Bodies (ULBs) in Delhi shall mandate 5% use of C&D recycled products for nonstructural application by all, including private individuals. This condition shall be introduced by modifications in byelaws if necessary, & by including the same condition in the building plan approval.
- (iv) Compliance of these conditions shall be verified and certified by the concerned Executive Engineer before verifying and certifying the bills for payments in any such contract.
- (v) Intimation of the action taken/compliance report.

Ministry of Housing and Urban Affairs, Govt. of India , (MoHUA) had fixed the target of 16,07,000 MT for use of Construction and Demolition recycled materials by various Departments in the Financial Year 2019-20.

Directions u/s 5 of the EP Act were issued on 14.01.2020 to various Govt. Departments / Agencies for expediting & maximizing the utilization of C&D Waste Recycled Materials / Products of the 3 C & D Waste Processing Facilities in Delhi in their projects to meet the targets fixed by MoHUA.

In the Financial Year 2019 -2020 in respect of existing 3 C & D Waste Processing Facilities [at Jahangirpuri (Burari), Shastri Park & Mundka], Total C&D Waste Intake was 9.2 Lakh MT , Total C&D Waste Processed was 8.8 Lakh MT and Total Off-take of C & D Recycled Materials by Govt. Departments & Private Parties was 8.8 Lakh MT.

Off- take of C&D Recycled Materials by the Govt. Departments for Financial Year 2019-20 is enclosed.

Above action taken and meetings taken by the Chairman, DPCC from time to time resulted in improvement in the off take / lifting of C & D Recycled Materials from the existing C & D Waste Processing Facilities in Delhi. Over the last 10 years, it is the first time when C & D waste Intake Quantity, Processed Quantity and Off-take Quantity are more or less same during the financial year 2019-20.

DEPARTMENT OF URBAN DEVELOPMENT
GOVT. OF NCT OF DELHI
9th LEVEL, C-WING, DELHI SACHIVALAYA
I.P. ESTATE, NEW DELHI-110002

F. No. 7(84)/AD/LB/2016/ 5782-5805

Dated: 6.7.16

ORDER

Sub : Use of Recycled Products from Construction & Demolition Waste.

Whereas, Govt. of India accords high priority to Swatchh Bharat and sanitation measures as a tool to synergize dynamic growth & sustainability.

Whereas, in this direction, Govt. has [comprehensively inter-alia revised waste management rules and] notified a new rule, namely Construction and Demolition (C & D) Waste Management Rule, 2016.

Whereas, the major objective of these rules is environmentally sound management of waste, & simultaneously promoting a circular economy through resource recovery and reuse, which in turn is aimed at combating and mitigating climate change phenomenon.

Whereas, Rule 9(1) of the Construction & Demolition Waste Management Rules, 2016 requires the Secretary in-charge of development in State Government to prepare policy w.r.t. management of construction & demolition waste in accordance with the provisions of these rules within one year.

Whereas, the Rule 9(4) of the said rules makes procurement of materials made from Construction and Demolition waste mandatory to a certain percentage, (say 10-20%) in municipal and Government contracts subject to strict quality control.

Whereas, one Construction & Demolition Waste Processing plant is already operational in Delhi at Shastri Park (under administrative control of East Delhi Municipal Corporation) & more such proposed plants [at Tikri Kalan, Libaspur (PWD Projects) and at Mundka (DMRC Project)] are under process of being set up in Delhi.

Whereas, the Rule 6, also enlists as duty of Local authority, inter alia at Sl.No.9 to device appropriate measures for management of Construction & Demolition Waste generated including processing facility and for using the recycled products in the best possible manner.

Whereas, an advisory was issued by GNCTD on 27th July 2015, mandating use of recycled C & D Waste products in Delhi. An advisory in continuation of the same was also issued on 14.9.2015 by Dy. Secretary (PWD/UD).

GNCTD hereby orders following measures for compliance of all Municipal/Local Govt. bodies in Delhi, Public Works Department, Irrigation & Flood Control, DSIIDC, DJB & departments and Organisations of GNCTD involved in Construction/Maintenance of Civil Works :

- (1) A minimum of 2% of C&D recycled products shall be used for building works.
- (2) 10% of C&D products shall be used for Road works.
- (3) Urban Local Bodies (ULBs) in Delhi shall mandate 5% use of C&D recycled products for non structural application by all, including private individuals. This condition shall be introduced by modifications in byelaws, if necessary, & by including the same condition in the building plan approval.
- (4) All above conditions, including those mentioned in the office advisory No.23(232)/E-in-C Projects/PWD/2015-16/17902-23 dated 14.9.2015 (adoption of prescribed construction practices, testing the quality of recycled products, installation of on site C&D waste processing plant in redevelopment projects costing more than Rs.500 crores etc.) shall be included in all relevant Civil work tenders i.e. Notice Inviting Tenders, Work Orders & Contract agreements etc. for strict compliance.
- (5) Compliance of these conditions shall be verified and certified by the concerned Executive Engineer before verifying & certifying the bills for payments in any such contract.
- (6) and intimate the action taken/compliance report .


(Ramesh Negi)
Pr. Secretary (UD)

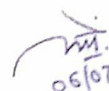
F. No: 7(84)/AD/LB/2016/ 5782-585

Dated 6.7.16

Copy to :

1. The Pr. Secretary (PWD), 5th Level, Delhi Sectt., Delhi.
2. Commissioner, East Delhi Municipal Corporation.
3. Commissioner, North Delhi Municipal Corporation.
4. Commissioner, South Delhi Municipal Corporation.
5. Managing Director, DSIIDC, Bombay Life Building, Cannaught Place, New Delhi.
6. Director General, CPWD, Nirman Bhawan, New Delhi-110011.
7. Engineer-in-Chief, PWD, MSO Building, IP Estate, New Delhi.
8. Engineer Member, DDA, Vikas Sadan, INA, New Delhi-110023.

9. CEO, DJB, Varunalaya, Jhandewalan, New Delhi.
10. Chief Engineer (I&FC), ISBT Building, Kashmere Gate, New Delhi.
11. CEO, DUSIB, Punarwas Bhawan, IP Estate, New Delhi
12. Chief Engineer (Northern Railway), Baroda House, New Delhi-110001.
13. Chief Engineer, DTTDC, 18-A, DDA SCO Complex, Defence Colony, New Delhi-110024.
14. Executive Officer, Delhi Cantonment Board, Delhi Cantt., New Delhi-110010.
15. CEO, BSES, Nehru Place, New Delhi.
16. CEO, NDPL, Hudson Lane, Kingsway Camp, New Delhi.
17. CEO, Yamuna Power Lighting, Karkardooma, New Delhi.
18. Chief Engineer, RC/W, DMRC, Barakamba Road, Cannaught Place New Delhi.
19. Officer Incharge, DTL/PGCL, Rajghat Power House, New Delhi.
20. Officer Incharge, DTL/PGCL, Loni Road, New Delhi.
21. Chairman, NDMC, Palika Bhawan, Cannaught Place, New Delhi.
22. Chairman, DPCC, ISBT Building, Kashmere Gate, New Delhi.
23. Spl. Secretary, UD Department, GNCTD.


06/07/2016
(Onkar Marathe)
Dy. Director (LB)

**Month wise Off-take of C&D Recycled Materials by the Government Departments in
Delhi For FY 2019-20**

S.N.	Name of Government Departments	Annual Offtake Target (FY 2019-20) (MT)	Cummulative Offtake from 1st April 19 to 31st Mar 20 (MT)	Percentage (%)
1	North Delhi Municipal Corporation	25000	73340	293.36
2	East Delhi Municipal Corporation	25000	38182	152.73
3	South Delhi Municipal Corporation	50000	47327	94.65
4	DDA	50000	42530	85.06
5	DSIIDC	100000	73344	73.34
6	Irrigation & Flood Control	200000	92757	46.38
7	New Delhi Municipal Council	10000	3539	35.39
8	PWD	100000	34419	34.42
9	CPWD	15000	4663	31.09
10	NBCC	30000	1840	6.13
11	DMRC	1000	12	1.20
12	Railway Board	1000	0	0.00
Total		607000	411953	25.63
13	NHAI	1000000	1362	0.14
Grand Total		1607000	413315	25.72

A Summary Statement on progress made by Municipal Authorities in respect of Implementation of Schedule I & II of Construction and Demolition Waste Management Rules, 2016 for the year 2019 - 2020.

Presently there are four Construction and Demolition Waste (C & D) Processing Facilities operating in Delhi as given in following Table:

S. No.	C & D Waste Processing Facility	Existing Capacity (in TPD)
1	C & D Waste Processing Facility at Jahangir Puri (Burari) (Being operated by IL&FS)	2000
2	C & D Waste Processing Facility at Shastri Park (Being operated by IL&FS)	500
3	C & D Waste Processing Facility at DMRC Site Rani Khera (Being operated by IL&FS)	150
4.	C & D Waste Processing Facility at Bakkarwala (New Facility started operation in March, 2020)	1000
	Total	3650

1.C & D Waste Processing Facility at Jahangir Puri (Burari)

This C & D Waste Processing Facility is of 2000 TPD capacity and being operated by M/s IL&FS Environmental Infrastructure and Services Ltd. at Jahangir Puri (Burari) in 7 Acres plot area. Construction and Demolition Waste received and processed at this facility in the Year 2019-2020 is given in the following Table :

S. No.	Description	Quantum (Year 2019-20)
1.	C&D Waste received	676635 MT
	Products of Processed / Recycled C&D Waste	
2.	Non- Structural Concrete aggregate	265880 MT
3.	Manufactured Sand	17450 MT
4.	Ready Mix Concrete (RMC)	Nil
5.	Tiles	4912 m ³
6.	Granular Sub-Base (GSB)	26547 MT
7.	Soil	462614 MT
8.	Cement Concrete Bricks	3061 m ³

- The C&D Waste received in the facility is first weighed through Weigh Bridge with computerized system installed near the Gate where trucks enter and after that inspection of the incoming material is done. Records of incoming C&D Waste and various products (Aggregates, Sand, Concrete Blocks, Pavers & Tiles, Kerb Stone etc) are maintained.
- Machinery installed in the facility are Rubble Master 60 (in Dry Line Process) , CDE Asia (in Wet Line Processing, Capacity 65 Tonnes per Hour) , Grizzly Set (Filters), Impact Crusher, Hydrocyclone, Filter Press , various Screens, 4 Mini Mixers, JCBs, Brick Making Plant, Vibrating Tables, Batching Plant etc.
- The C&D Waste Processing Facility is having Dry and Wet Processing sections. Big Concrete Blocks are crushed to 200 to 400 mm size and sent to Dry Section for further crushing for getting aggregates of 10 to 20 mm, 3 to 10 mm and 3 to 75 mm size.
- Mixed C & D Waste is sent to Grizzly Set (Filters 200 mm size) and passed material is sent to Impact Crusher for size reduction to 60 mm. Thereafter this material is sent for wet processing where water is mixed with crushed C & D Waste for producing aggregates of 60 to 20 mm, 20-10 mm and 10 to 3 mm size. Hydro cyclone is used to produce sand of 3mm to 75 micrometer size and Silt + Clay of size

less than 75 micrometer. Filter press is used for dewatering of the soil extracted from the C & D Waste. Recoverables from Grizzly Set are sent for crushing into size of 200mm to 400 mm.

- Recyclables (Rags, Plastics, Metals, and FRP Sheets etc) received from the segregation of Construction and Demolition Waste is sold to the Recyclers / Scrap Dealers. Whole Bricks received from segregation of C&D Waste is kept separately for internal use. The rejects in form of RDF is sent to Waste to Energy Plant at Ghazipur (Being operated by IL & FS Environmental Infrastructure & Services Limited).
- The Facility is also having a Batching Plant however it is non-operational due to less demand of Ready Mix Concrete (RMC).
- There is casting section where Tiles, Kerb Stone , Paver Blocks, Brick Tiles , Cement Bricks (Size 400mm x 200mm x 100 mm) are produced using the aggregates & sand produced from the Construction and Demolition Waste and using Cement , Pigments / Colour & other Additives.

Pollution Control Measures :

- Sprinkling of water is done on the road on which movement of trucks take place. Vertical Corrugated sheets have been provided at the boundary wall near habitation (on the back side boundary wall of the plant and also at the boundary wall towards the MCD Sweeper colony).
- Conveyer belts of dry processing section are covered. In the dry processing section bags provided for dust control.
- Dust suppression system called Cloud Tech is installed at the feed area of the wet processing section to suppress the dust level in the surrounding. 36 Sprinklers are installed in different section at various locations in the plant for dust control. Treated water from the Coronation Pillar Sewage Treatment Plant of Delhi Jal Board is used for sprinkling system through tanker.
- No trade effluent is discharged from the premises of the plant and domestic effluent from toilet and bathrooms is discharged in the sewerage system of the area.
- Green belt provided near the front boundary wall and side wall towards the MCD Sweeper colony.
- Online Continuous Ambient Air Quality Monitoring Station has been installed by DPCC as per the directions of Hon'ble NGT.

There is a NGT Case O.A No. 02/2019 in the matter of Pawan Kumar Sharma, MLA vs Govt. of NCT Delhi related to C & D Waste Management in Delhi and C & D Waste Processing Facility at Jahangirpuri and related issues.

- (i) Inspections of C & D Waste Processing Facility at Jahangirpuri (Burai) were carried out on 22.02.2019 & 31.07.2019 and Directions u/s 31 (A) of the Air Act & u/s 5 of the EP Act were issued on 11.04.2019 to M/s IL & FS for taking necessary action for rectification of deficiencies. Environmental Compensation of Rs Five Lakh was imposed & Operator of Facility (M/s IL&FS) was also directed to submit Bank Guarantee of Rs Five Lakh and the same was deposited by M/s IL&FS to DPCC.
- (ii) North Delhi Municipal Corporation was also asked to take necessary action for removal of huge deposition of C & D Waste near the said facility at Jahangirpuri.
- (iii) Directions u/s 5 of the EP Act were issued on 14.01.2020 to various Govt. Departments / Agencies for expediting & maximizing the utilization of C&D Waste Recycled Materials / Products of the 3 C & D Waste Processing Facilities in Delhi in their projects to meet the targets fixed by MoHUA.

M/s IL & FS Environmental Infrastructure & Services Limited has deposited Environmental Compensation of Rupees Five Lakh vide letter dated 10.05.2019 and also deposited Pay Order of Rupees Five Lakh vide letter dated 06.08.2019 in lieu of Bank Guarantee asked by DPCC.

Regular meetings are taken by Secretary (Environment) cum Chairman, DPCC with the concerned Departments for the issues related to C& D Waste Management and lifting of Recycled / Processed / Products of C&D Waste material.

2. C & D Waste Processing Facility at Shastri Park

This C & D Waste Processing Facility is of 500 TPD capacity and being operated by M/s IL&FS Environmental Infrastructure and Services Ltd. at Shastri Park in 2.5 Acres plot area. Consent to Establish and Consent to Operate has been given to the facility for expansion from 500 TPD to 1000 TPD Capacity. Construction and Demolition Waste received and processed at this facility in the Year 2019-2020 is given in the following Table :

S. No.	Description	Quantum (Year 2019-20)
1.	C&D Waste received	206640 MT
	Products of Processed / Recycled C&D Waste	
2.	Non- Structural Concrete aggregate	Nil
3.	Manufactured Sand	17221 MT
4.	Ready Mix Concrete	Nil
5.	Paving Blocks	Nil
6.	Granular Sub-Base (GSB)	43410 MT
7.	Soil	93848 MT
8.	Cement Concrete Bricks	3302 m ³

Only wet process is used for C&D Waste processing and have the capacity of 1000 TPD. The source of water supply is STP Yamuna Vihar. Power connection with a sanction power load of 600 KW is available. One DG Set of capacity of 35 KVA also provided. Processing unit (crusher), washers, screen thickener, grizzly mixers and roll mix are some of the machinery. Raw materials such as cement and admixtures are used by the plant to produce the final product.

3. C & D Waste Processing Facility at DMRC Site Rani Khera

This C & D Waste Processing Facility is of 150 TPD capacity and being operated by M/s IL&FS Environmental Infrastructure and Services Ltd. at Rani Khera in 2.95 Acres plot area on behalf of Delhi Metro Rail Corporation (DMRC). Construction and Demolition Waste received and processed at this facility in the Year 2019-2020 is given in the following Table :

S. No.	Description	Quantum (Year 2019-20)
1.	C&D waste received	30407 MT
	Products of Processed / Recycled C&D Waste	
2.	Non- Structural Concrete aggregate	Nil
3.	Manufactured Sand	Nil
4.	Ready Mix Concrete	Nil
5.	Paving Blocks	5839.71 m ³
6.	Granular Sub-Base (GSB)	5684 MT
7.	Soil	32687 MT

Only wet process is used for C&D Waste processing and have the capacity of 150 TPD. Power connection is provided by the TATA POWER with a sanction power load of 300 KW. Weigh bridge, JAW, Prograte, Evo wash and aqua cycle are some of the machinery. Raw materials such as construction and demolition waste is used by the plant to produce the final product such as fine and coarse aggregates.

4. C & D Waste Processing Facility at Bakkarwala

This C & D Waste Processing Facility is of 1000 TPD capacity and being operated by M/s Garg & Company at Bakkarwala in 20234.3 Sq.mt. plot area. This facility has started its operation in March, 2020 Wet & Dry both processes are in use for C&D Waste processing. 50 TPH is processed by Dry process and 80 TPH is processed by wet process. Source of water supply is treated water from water feeder channel of IFCD. Power connection is provided by the BSES Rajdhani with a sanction power load of 15 KVA & 380 KW .