

Government of Himachal Pradesh,
Urban Development Department.

No. UD-F(10)-2/2019 Shimla -2, the 20th July, 2019

NOTIFICATION

In exercise of the power conferred by clause (1) of Rule 9 of the Construction and Demolition Waste Management Rules, 2016, the Governor, Himachal Pradesh is pleased to notify "Himachal Pradesh State Construction and Demolition Waste Policy and Strategy" as per enclosed Annexure - "A" with immediate effect.

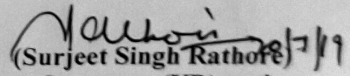
By Order

PRABODH SAXENA
Pr. Secretary(UD) to the
Government of Himachal Pradesh

Endst. No. UD-F(10)-2/2019 dated: Shimla-2, the 20/07/2019

Copy forwarded for information and necessary action to :-

1. The All ACS/Pr.Secy/Secy to the Government of Himachal Pradesh.
2. The Secretary(GAD) to the , Govt of H.P. for information w.r.to item No.32 dated 06/07/2019(CMM).
3. The Director, Urban Development, Palika Bhawan, Talland, Shimla-2. with a request to circulate the policy to all ULBs , other concerned and also upload on the website.
4. All the Deputy Commissioners (except Kinnaur & Lahaul Spiti), in Himachal Pradesh.
5. The Commissioner, Municipal Corporation, Shimla-1
6. The Commissioner, Dharamshala Municipal Corporation, Distt. Kangra, H.P.


(Surjeet Singh Rathore)
Deputy Secretary (UD) to the
Government of Himachal Pradesh

**HIMACHAL PRADESH STATE POLICY AND STRATEGY ON
MANAGEMENT OF CONSTRUCTION AND DEMOLITION WASTE**

1. INTRODUCTION

With rapid urbanization in the State of Himachal Pradesh, one of the fastest growing Industry is tourism which will involve development of infrastructure in both private & Govt. Sector and it is expected to continue growing exponentially with the increase in urban population. The increase in the number of buildings, expansion of urban infrastructure (such as roads, bridges, flyovers, dams etc) and demolition of old buildings has also resulted in immense amount of waste being generated in the form of debris, building materials etc. In addition, with increased urbanisation and infrastructure creation, there is a shortage of conventional building materials such as aggregates, sand and significant increase in the price of building materials such as concrete and bricks. Therefore, to deal with the issue of rising C&D Waste generation in India, the challenge of C&D Waste is recycling and sustainable use of natural resources. The Government of India issued the Construction and Demolition Waste Management Rules, 2016 ("C&D Rules") in March 2016. These Rules apply to every waste resulting from construction, remodeling, repair and demolition of any civil structure of individual or organization or governmental authority that generates construction and demolition waste.

Currently in India, C&D Waste management is in a nascent stage, where a portion of C& D waste is used for filling and leveling low-lying areas and some resources are recovered from C&D Waste. However, a majority of C&D Waste is dumped in landfills or is illegally disposed of in water bodies, rivers and mangroves. It is also common to see C&D Waste littered on pavements and in open plots (this practice is known as fly-tipping) or along the hill slopes along the road sides. Many times, such waste is often mixed with municipal solid waste making the municipal waste heavy and unsuitable for further processing such as composting, recycling or energy recovery. Given that material costs comprise nearly 40 to 60 percent of the Project cost in the construction industry, sustainable management of C&D Waste can result in significant cost savings for industry and other stakeholders.

Therefore, the dumping practices are not only unsustainable but also lead to a loss of resources as C&D Waste can be recycled into reusable products which greatly reduce the stress on the mining of virgin materials. The processing of the C&D Waste also reduces the total amount of inert wastes that are disposed of in landfills.

The issue of C&D Waste has entered the public discourse relatively recently and therefore, there have been historically very little efforts to keep records of its generation and composition. In addition, C&D Waste is often clubbed with solid waste and thus, the magnitude of the problem is underestimated by all stakeholders involved. This has resulted in no formal system for prevention, reduction, management, reuse and recycling of C&D Waste. The Technology, Information, Forecasting and Assessment Council (TIFAC) considers approximately 25% of all solid waste to be C&D Waste and therefore, using this metric, it can be estimated that a large quantity of C&D waste is generated in the State of Himachal Pradesh too.

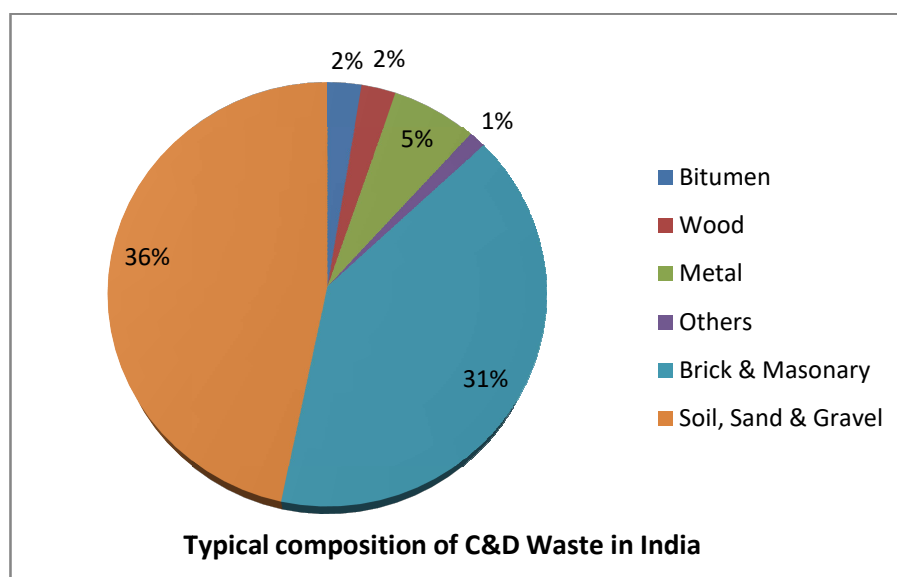
However, these numbers cannot be considered as comprehensive and reliable data on C&D Waste and therefore, it is necessary for a complete and credible assessment to be carried out by the ULBs on the actual C&D Waste that is generated within their jurisdictional limits and such data to be compiled by the State Pollution Control Board. This is in line with the requirement under C&D Rules where ULBs are required to keep track of the generation of construction and demolition waste within its jurisdiction and establish a database and update it once in a year. The ULB and the HPSPCB should recognize C&D Waste as a separate stream of waste and begin the enumeration of its quantities of generation, collection and disposal in the statutory reports.

2. SOURCES OF CONSTRUCTION & DEMOLITION WASTE

2.1 Construction and Demolition Waste (also referred to as C&D Waste) is defined by the C&D Rules as the waste comprising of building materials, debris and rubble resulting from construction, remodeling, repair and demolition of any civil structure. The activities that mainly generate C&D Waste are (i) construction of new buildings, (ii) renovation of existing buildings (iii) demolition of old buildings (iv) excavation/laying of asphalt/concrete roads (v) installation and service of public utilities

(telephone/ water/ electricity/ sewage pipelines) (vi) construction/ renovation of public infrastructure (bridges/flyovers).

2.2 Components of C&D Waste: The composition of C&D Waste is city-specific as well as project-specific and differs according to the rate of urbanisation, the pace of developmental activity and re-development of the city. The composition also varies according to the project and depends on the age and type of building. Generally, however as per the study carried out by Technology, Information, Forecasting and Assessment Council (TIFAC), the typical composition of C&D Waste in India is shown in figure- 1 below:



3. OBJECTIVES

Rule 9 (1) of the C&D Rules, 2016 envisages that the Secretary In-Charge of Urban Development in the State Government is required to prepare the State Policy Document with respect to management of construction and demolition of waste in accordance with the provisions contained in C&D Rules. Pursuant to this provision, this policy document on C&D Waste is being prepared for the State of Himachal Pradesh to sustainably manage the C&D Waste which is increasingly being generated. This policy is aimed at relevant authorities, other functionaries of ULBs and other stakeholders to prepare the plan and procedures for management of C&D Waste within their jurisdictions.

The objectives of the Construction and Demolition Waste Management Policy document for Himachal Pradesh State are:

- (a) Avoid, minimize, reuse, recycle and dispose off C&D Waste.
- (b) Avoid and minimize construction waste through design and construction management.
- (c) To ensure collection, storage and processing of C & D waste.
- (d) To ensure that no C & D waste is dumped in the open spaces.
- (e)
- (f) To ensure that all Urban Local Bodies effectively implement the C & D Waste Management
- (g) Plan to avoid the environmental problems that arise owing to open dumping of these wastes.
- (h) To identify suitable lands for dumping of C & D waste and further its processing through Private Operators/ Agencies or by ULB itself.
- (i) To ensure involvement of different stakeholders in the successful implementation of C & D Waste Management Policy.
- (j) To effectively comply with the provisions of C&D Rules.

4. PRINCIPLES FOR MANAGEMENT OF C&D WASTE.

The Concept of “3R” Principle has been proposed for reducing, reusing and also recycling wastes of the construction industry. The different processes involved in construction projects namely designing, production and manufacturing at the construction sites directly lead to waste creation, therefore it is essential for a green economy to follow the “3R” principle in the construction projects.

a) Reduce

Potential wastes can be identified early in the design process itself and measures should be taken during design stage to minimize the waste that is likely to be generated. Waste reduction can be achieved by designing with standard sizes for all building materials, planning for flexible spaces and ensuring that designs are adaptable to changing uses and are amenable for deconstruction and reconstruction.

b) Reuse

This involves identification of waste that can be salvaged for reuse in the current Project or another Project or that can be donated. A comparison of the value of the materials “as it is” for salvage or to its value as materials for recycling

may be considered prior to reuse in many cases. Some of these materials may be valuable to reuse on-site; others may be sold to be used as building material in another site or donated to a charitable organization

c) Recycle

After exploring all the options to prevent waste and salvaging and reusing materials, the next step is to recycle as much of the remaining debris as possible. Recycling saves money by minimizing disposal costs.

4.1 C&D WASTE MANAGEMENT:

The involvement of all stakeholders and adoption of suitable management practices is key to successfully achieving efficient C & D Waste Management.

No Littering Zones

Forest land, water bodies, drains, flood plains, road side etc. be declared as no littering zones and littering in this zone be made a cognizable offence.

Designated Dumping Site

- I. The name and capacities of the designated dumping sites should be available on a web platform.
- II. The dedicated website/ link should be available in public domain to apply for the permit for transportation of the C&D waste, to remit the fee and to obtain the permit for transportation.

Waste Reception Facilities

- i. Stock piling area- Area located for temporary stockpile of waste for later use
- ii. Recycling area
- iii. Reclamation sites- designated part of a development project that accepts C&D waste for reclamation purpose
- iv. On site collection of waste through MC dumpers

“Waste Generator” is defined by the C&D Rules as any person or association of persons or institution, residential and commercial establishments including Indian railways, airport, port and harbour and defence establishments who undertakes construction or demolition of any civil structure which generate C&D Waste.

“Bulk Waste Generators” Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month have been identified separately in the C&D Rules and have additional obligations attached to them. For the purposes of the Himachal Pradesh State C&D Policy, this category of these waste generators will be considered as “bulk waste generators”.

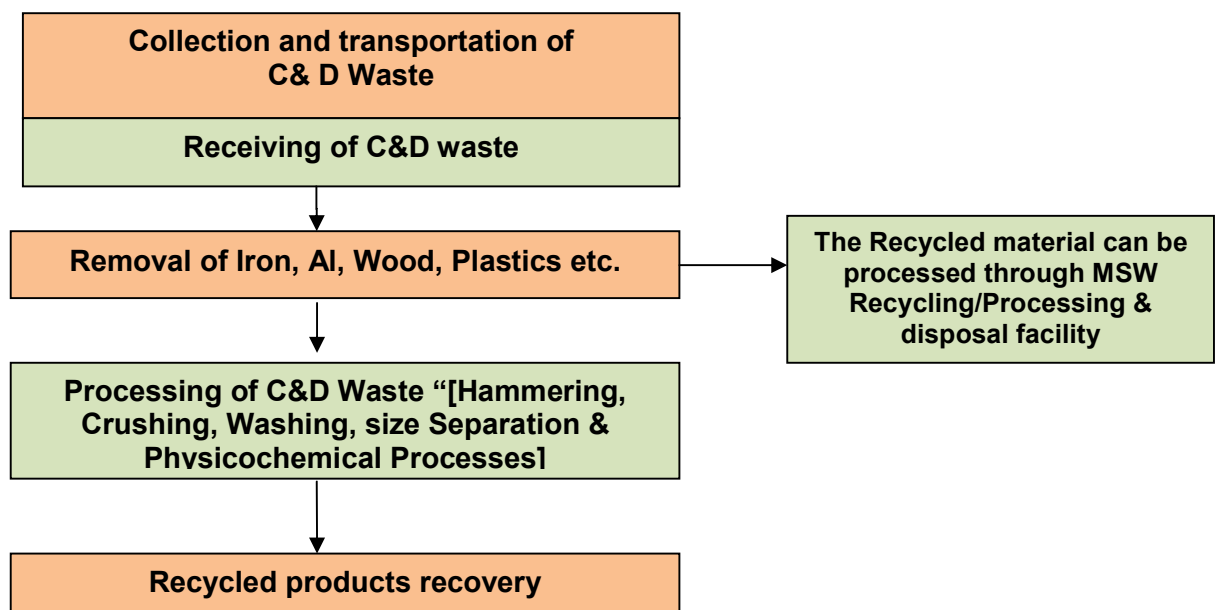
“Service Providers” The third category of waste generators identified in the C&D Rules is the “Service Providers” and are defined as authorities who provide services like water, sewerage, electricity, telephone, roads, drainage etc. who often generate C&D Waste during their activities, which includes excavation, demolition and civil work.

The Rural area and Semi-Urban area also needs to frame guidelines for proper disposal of C&D waste and also supposed to work in harmony with urban areas.

4.2 The Management of C & D waste from Generation to Disposal can be illustrated as below:

Waste Management Plan

Every builder and Govt. / private executing agency like HPPWD, HIMUDA, BSNL etc. while constructing roads or any other project should submit a Waste Management Plan which should include key waste types, arrangements for onsite sorting and proposal disposal of surplus earth. Copy of each award letter should be submitted to Municipal Corporation/ concerned ULB for information.



4.3 Procedure for application and grant of permission—

- (i) Applicant or the person concerned, intending to commence construction within the area of the ULB, shall in writing submit detailed estimate of muck to be generated from the plot/construction site to the Corporation on the prescribed proforma annexed with these bye- laws as Appendix-I at the time of submission of his/her building map/plan for sanction. However, in the case of repair of building or in the case where no planning permission is required, the permission for dumping debris shall be obtained from the ULB authorities by moving an application mentioning therein full particulars of the applicant, location of the building and the estimate/quantity of muck to be generated.
- (ii) The estimate submitted by the applicant shall be verified by the technical wing of ULB after spot inspection and thereafter shall be sent to the concerned branch for raising the bill and for according necessary permission in favour of the applicant.
- (iii) The permission for dumping of debris shall be accorded only after obtaining receipt of the amount to be deposited by the applicant in the ULB on this account.
- (iv) The place for dumping of muck shall be communicated to the applicant by the ULB in writing and the name of the place/site for dumping of debris by the applicant shall also be mentioned in their building sanction letter. Further, intimation of the same shall also be given to the concerned branch of ULB or to the concerned agency or the contractor hired or engaged by the ULB for managing the dumping site.
- (v) During transportation of the muck, a person shall have to carry the original permission, a copy of which shall be affixed on the windscreen of the vehicle and the same shall have to be shown to the authorized officer/official of the ULB at the time of inspection. However, in case of manual transportation of debris the person carrying the same shall have to show the original sanction to the inspecting staff/authorized officer/official at the time of inspection.
- (vi) There shall be a restriction on movement of the vehicles carrying muck after the sun set and before the sun rise. The normal timings for dumping muck at the dumping site will be between 9:00 am to 5:00 pm However, in case of exigencies and in view of traffic regulations in the area the ULB may in writing relax such timings.

- (vii) No one shall be permitted to carry the digging and excavation of plot or land after sun set and before sun rise but the ULB, in the larger public interest or in the case of emergent circumstances may relax such imposition/restrictions, on receiving written request from the applicant or the concerned agency or the authority interested in this regard.
- (viii) The person, after obtaining the sanction of building map from the competent authority or before raising the construction at site, is required to install a painted board of the size of 3' x 2' indicating therein the number and date of the sanction, commencement of construction and hours during which construction can be carried out, time when excavation can be done, name of dumping site allotted to the applicant for the purpose of dumping muck, nature of sanction, the area of construction sanctioned on each floor and the telephone number of the Control Room set up by the ULB for entertainment of complaints etc.
- (ix) The authorized officer/official of ULB shall prescribe the conditions relating to the application of muck generation from the plot, grant of sanction for muck disposal and condition relating to affixing of board at site giving therein the detail as mentioned in clause at the time of grant of building sanction.
- (x) Each vehicle carrying the C&D waste should be entered on the respective dumping site and its entry with its load should be made against the concerned dumping site simultaneously so that the capacities of the dumping sites are updated regularly on the web platform.
- (xi) At the end of the year cross checking of the permits issued and permits entered on the dumping sites should be checked and in case of discrepancies(e.g. the person has deposited the permit fee but has not dumped the material on the designated site) the violator should be penalized
- (xii) It may be better to include the transportation charges in the permit fee and provide the transportation to the C&D waste generators

5. ROLES & RESPONSIBILITIES:

5.1 Role of Waste Generators

C&D Waste Management Rules, 2016 provides that every Waste Generator is responsible for collection, segregation and storage of C&D Waste used to be generated by the generators. The Generator is required to ensure that other

waste (such as Municipal Solid Waste and Hazardous Waste) does not get mixed with the C&D Waste and that the C&D Waste is stored and disposed of separately. Every waste generator is mandated to keep the C&D Waste within the premises or get the waste deposited at the collection centre made available by the Urban Local Body or handed over it to the authorised processing facilities of C&D Waste and to ensure that there is no littering of such waste.

Waste generators who generate more than 20 tons or more in one day or 300 tons per Project in a month shall segregate the waste viz concrete; soil; steel, wood & plastics; bricks & mortar and shall submit Waste Management Plan. The Waste Generator should get prior approval from the local authority before starting construction or demolition or remodeling work and keep the concerned Urban Local Body informed regarding the relevant activities from the planning stage to the implementation stage and this shall be done by Project Proponent on project to project basis.

5.2. Role of Urban Local Bodies

The Urban Local Bodies, in coordination with the concerned District Administration, shall identify suitable land for setting up of storage, processing and recycling facilities for Management of Construction and Demolition Waste. ULBs can also set up these facilities in clusters by executing an agreement with other ULBs which will interalia include operation & maintenance, sharing of sum received out of collection of C&D waste & other conditions as deemed fit etc.

The processing or recycling site shall be away from habitation clusters, forest areas, water bodies, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.

The time frame for suitable site selection and implementation of C & D Waste Management facility is as per Schedule-I.

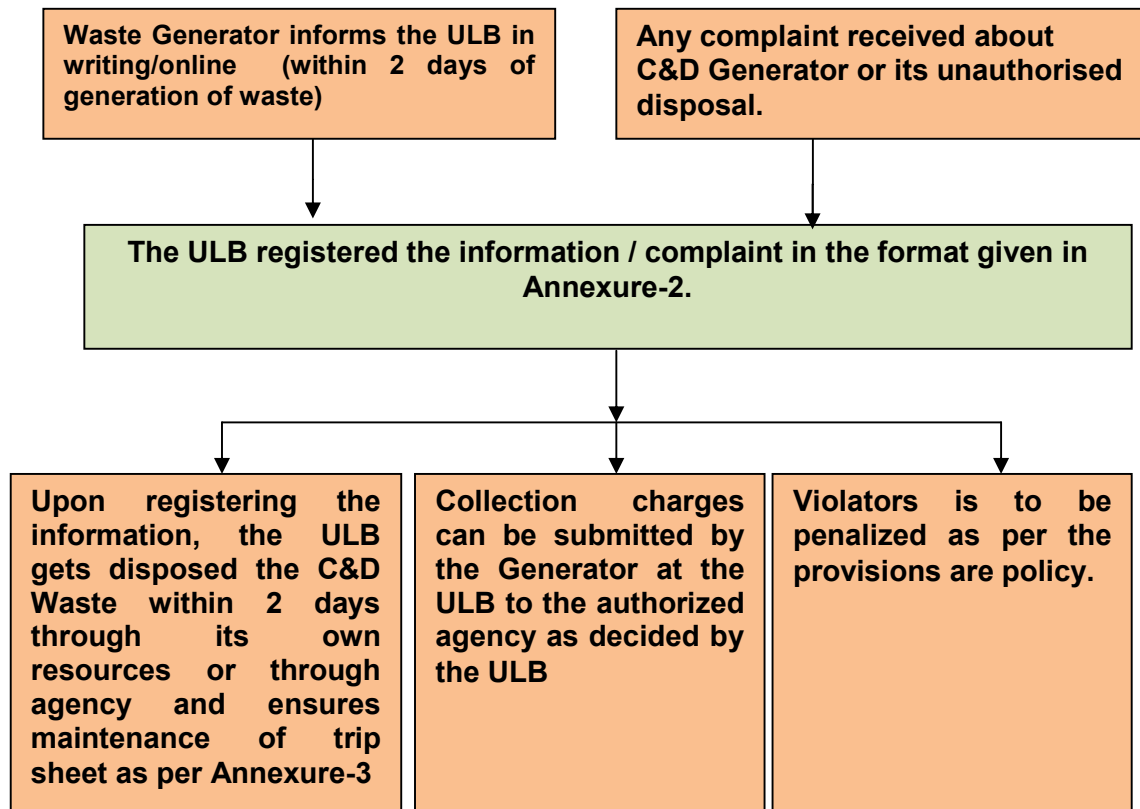
6. COLLECTION AND TRANSPORTATION OF C & D WASTE

Collection and Transportation of Construction and Demolition Waste shall be done by the Urban Local Bodies (ULBs) or by authorised private agency within

two days of receiving information or any complaint regarding generation of C & D waste. The following considerations shall be kept in mind while planning for Collection and Transportation activity.

- For small generators of C&D Waste (such as waste emanating from petty construction, repair or maintenance works), ULB shall consider two options, (a) deposit of C&D Waste by the small generators at collection centres/earmarked areas; or (b) removal of the C&D Waste by the ULBs through itself and/or authorised private party on payment basis. The fees for collection of C & D Waste by ULBs/authorised agency is defined in terms of Schedule-I].
- Waste generators who generate 20 tons or more in one day or 300 tons per Project in a month shall be responsible to segregate the C & D waste in different streams at their sites and shall recycle and reuse the waste to the maximum extent possible. The fees for collection of C&D Waste by ULBs/ authorised agency is in terms of Schedule-II.
- The Waste Generators shall inform the Urban Local Body or the authorised agency in writing/ or online within three days before generation of C & D waste for collection of such waste by paying the charges as mentioned in Schedule-II. The Urban Local Body or its authorized agency shall collect the C & D Waste within two days of receiving the information or complaint about the C&D waste generation. If information about the generation of waste is not given to the concerned ULB and the charges for collection are not deposited within 3 days of the generation of waste, any complaint received about C&D generator unauthorized dumping a penalty of Rs 20,000/- per event shall be charged to the Waste Generators as per Rule-7 (xii) Schedule-II (Item No-8) of Solid Waste Management Bye- laws of respective Urban Local Body.
- In order to create awareness about management of C & D Waste, the Urban Local Body shall carry out massive awareness campaigns and will also release public notices in at least two local new papers. The sample reference copy for releasing the Public Notice is annexed as Annexure-1,

- All ULBs shall publicize the rates for collection, transportation and storage of C&D Waste and shall publish such rates on their websites, offices, local newspapers and public places.
- The Standard Operating Procedure (SOP) for the entire collection and transportation process is given below:-



Recycling of C&D Waste is essentially required, because it reduces the dependence on natural resources and eliminates adverse environmental impacts such as mining of virgin materials. Recycling of C&D wastes also reduces the quantum of C&D waste ending up at landfills and open spaces. It is mandated under the C&D Rules for the ULBs to make arrangements for the processing and disposal of C&D Waste, either themselves or by appointing authorised agencies.

Construction and Demolition Waste can be used in the following manner:

- Reuse (at site) of bricks, stone slabs, timber, conduits, piping railings etc. to the extent possible and depending upon their condition.

- Sale / auction of material which cannot be used at the site due to design constraint or change in design.
- Plastics, broken glass, scrap metal etc. can be used by recycling industries.
- Rubble, brick bats, broken plaster/concrete pieces etc. can be used for building activity, such as, levelling, under coat of lanes where the traffic does not constitute heavy moving loads.
- Larger unusable pieces can be sent for filling up low-lying areas.
- Fine material, such as, sand, dust etc. can be used as cover material over sanitary landfill.
- Use as a granular sub-base (the layer above compacted earthen sub-grade) in road construction.
- Processed C&D waste (after sizing and sieving) can be used in road pavement for sub-base construction.

7. PROCESSING OF C&D WASTE

7.1 Utilizations of C & D Waste Streams

Reusing of C& D Waste: It does not require any further processing to convert into a useful product. The items which are usable directly are screened out from the debris and put into the possible use without further processing.

Recycling of C&D Waste: Once the waste generated from construction and demolition activities has been segregated and reusable items are taken out, the leftover is available for further processing i.e. recycling into next useful stage.

7.2 Machinery for Recycling

Once the structure is demolished as per the plan in an Engineering manner, use of appropriate equipment and machinery is essential in the recycling process. Such equipment may be jaw crushers, magnetic separators, vibratory screens, washing equipment etc.

The recycling plant consists of the following technologies:

1. Feed hopper
2. Pre Screening
3. Washing & aggregate cleaning
4. Trash Screen for removal of light weights

5. Sizing Screen for washed Aggregate
6. Hydro cyclone system for Sand washing
7. Water Management system for recycling of process water

Among the major & minor components of C&D Waste, the most unpredictable and difficult materials are clay (soil) and all types of floating materials like plastic carry bags, sachets, thermocol etc. Recycling Technology has provided the solutions to tackle these difficult materials and make C&D Waste an acceptable quality product for re-use.

The following products can be recovered from recycling:

1. Recovery of washed sand for construction
2. Recovery of 2-3 sizes of mixed Aggregates
3. RMC made with recovered material
4. Value-added products like Kerb Stones, Pavement Blocks and Concrete Bricks etc.

8. GOVERNMENT INITIATIVES TO PROMOTE USE OF C & D WASTE

To promote effective use of C & D Waste and recycled products in different construction activities the following initiatives/activities should be taken by Urban Local Bodies and by the State Government.

8.1. Duties of Urban Local Bodies

The following initiatives/activities shall be undertaken by Urban Local Bodies to ensure effective management of C & D Waste:

- Shall keep track of the generation of construction and demolition waste within their jurisdiction, establish a data base and update once in a year.
 - Shall make provision for giving incentives for use of materials made out of C&D Waste in construction activities including in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads.
 - Shall examine and sanction the waste management plan of the generators within a period of two month or from the date of approval of building plan, whichever is earlier, from the date of its submission.
 - Shall create a sustained system of information, education and communication for construction and demolition waste through
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collaboration with expert institutions, civil societies and also disseminate through their own website.

- Shall coordinate with the concerned organizations for giving necessary approvals and clearances to the operators.
- That the Residues from construction and demolition waste processing and recycling industries shall be land filled in the sanitary landfills of solid waste.
- The Project of processing or recycling shall be large enough to last for 20-25 years (project based on-site recycling facilities).
- Shall identify land for processing or recycling site which is away from habitation clusters, forest areas, water bodies, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.
- The Urban Local Bodies, in consultation with the State Pollution Control Board, shall ensure that a buffer zone is maintained around solid waste processing and disposal facilities exceeding five Tonnes per day of installed capacity.
- Shall ensure that processing or recycling sites are fenced or hedged and provided with proper gate to monitor incoming vehicles or other modes of transportation and facility of CCTV may also be explored.
- Shall ensure that the approach and internal roads are concreted or paved so as to avoid generation of dust particles due to vehicular movement and should be designed so as to ensure free movement of vehicles and other machinery.
- Shall establish provisions of weigh bridge to measure quantity of waste brought at processing site. Fire protection equipment and other facilities as may be required shall also be provided.

8.2. Duties of State Government

The following initiatives shall be taken by the State Government to ensure effective management of C & D Waste:

- State Government departments and officers dealing with land shall be made responsible for providing suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition waste.

- The Town and Country Planning Department shall incorporate the site in the approved land use plan so that there is no disturbance to the processing facility on a long term basis.
- Provisions should be made for making procurement of materials made from construction and demolition waste mandatory upto a certain percentage (say 10-20%) in Municipal and Government contracts subject to strict quality control.
- Incentive should be given to ULBs for efficient management of C&D waste by devising a criterion.

8.3 Duties of the Secretary-in-charge, Urban Development in the States.

- (i) State policies and strategies should acknowledge the primary role played by the informal sector of waste pickers, waste collectors and recycling industry in reducing waste and provide broad guidelines regarding integration of waste picker or informal waste collectors in the Waste Management System.
- (ii) ensure implementation of provisions of these Rules by all local authorities;
- (iii) direct the Town & Country Planning Department of the State to ensure that master plan of every ULB in the State provisions for setting up of C&D waste processing and disposal facilities and
- (iv) ensure identification and allocation of suitable land to the local bodies within one year for setting up of processing and disposal facilities for C&D wastes and incorporate them in the master plans (land use plan) of the State or as the case may be, cities through ULBs and district planning committees or town and country planning department;
- (v) direct the Town Planning Department of the State and local bodies to ensure that a separate space for segregation, storage, decentralized processing of C&D waste is demarcated in the development plan for group housing or commercial, institutional or any other non-residential complex producing 20 tons per day or 300 tons per project in a month.
- (vi) direct the developers of Special Economic Zone, Industrial Estate, Industrial Park to earmark adequate land for recovery and recycling of C&D waste.
- (vii) facilitate establishment of C&D waste processing facility for a group of ULBs and towns on a cost sharing basis and ensure professional management of such facility.

- (viii) arrange for capacity building of local bodies in managing C&D Waste, segregation and transportation or processing of such waste at source.
- (ix) notify buffer zone for the C&D waste processing and disposal facilities in consultation with the State Pollution Control Board

8.4 Duties of Deputy Commissioner.-

The Deputy Commissioner shall,

- (i) facilitate identification and allocation of suitable land for setting up of C&D waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules;
- (ii) review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal Administration or Director of local bodies and secretary-in-charge of the State Urban Development.

9. ENVIRONMENT MANAGEMENT PLAN DURING PROCESSING OR RECYCLING OPERATIONS OF C&D FACILITY

In order to prevent pollution from processing or recycling operations, the following provisions shall be made:

- (a) Provision of storm water drains to prevent stagnation of surface water:
- (b) Provision of paved or concreted surface in selected areas in the processing or recycling facility for minimizing dust and damage to the site.
- (c) Prevention of noise pollution from processing and recycling plant.
- (d) Provision for treatment of effluents, if any, to meet the discharge norms as per Environment (Protection) Rules, 1986.
- (e) Provision of air pollution control measures such as dust suppression, dust extraction, Bag filters, Electro Static Precipitators, Scrubbing and Green belt development as per requirement can be done to meet the prescribed

standards laid down by Central Pollution Control Board & State Pollution Control Board.

- (f) Work Zone air quality at the Processing or Recycling site and ambient air quality at the vicinity shall be monitored.
- (g) The measurement of ambient noise shall be done at the interface of the facility with the surrounding area, i.e., at plant boundary.
- (h) A vegetative boundary shall be made around Processing or Recycling plant or site to strengthen the buffer zone.
- (i) Every possible measures shall be taken to recycle the water and use in different activity as far as possible and try to reduce the demand on fresh water.
- (j) An environment cell shall be established to implement the environment standards and to meet the environmental norms as prescribed by the authority.

10. FINANCIAL SUSTAINABILITY

The ULB should follow the principles of financial budgeting and costing for the management of C&D Waste.

In addition, as set out in the said policy, the main sources of revenue for the ULB for C & D Waste management are:

- (i) User fees which could be collected separately or while sanctioning of the building plan
- (ii) Revenue from sale of by- products from C&D Waste
- (iii) Fines and penalties. A list of illustrative user fees which the ULB could consider levying is set out in Annexure I

11. PENALTIES

1. Historically, there have been no and/or marginal fines/penalties for non-compliance of provisions pertaining to management of any stream of municipal solid waste including C&D Waste. Even in cases where there were penalties prescribed, they were rarely enforced by the governmental authorities leading to a lackadaisical attitude among generators, ULB staff, private players and operators of waste processing facilities with respect to

compliance with applicable regulations. Whoever is guilty of dumping of muck at a place other than the place (s) specified/notified by the ULB, the penalty shall be imposed in terms of provisions contained in Bye-Laws. Flying Squad consisting of SDM, EO, RO (Representative of Environment Dept) & PWD should be constituted to make supervise visits & also to address complaints of illegal & unauthorized dumping.

2. In the above context, in order to ensure compliance with C&D Rules. ULBS should frame bye- laws for management of C&D Waste and these bye-laws should include significant penalties to serve as a deterrent against non-compliance. A list of recommended fines is included as Annexure II to the Himachal Pradesh State C&D Policy. Further, it is recommended that the penalties be structured as a waterfall arrangement where penalties increase proportionately for consecutive and repeated non-compliance(s) by the same person. An example of such waterfall mechanism could be twice the fine amount for the second offence and thrice the penalty amount for the third offence and finally, in case of fourth contravention, the ULB should have the power to stop the construction, demolition and/or renovation activity and/or the license issued by it to the person for carrying on business. The ULBs could also structure

the penalties as a percentage of the Project value and/or quantity of C&D Waste dumped in contravention of the C&D Rules. The penalty amounts should be escalated every year by a specified percentage to take into account the inflation and other costs of recovery for the ULB.

in case of repeated violation, in addition to penalty as specified above, the owner at whose instance the construction/excavation work is carried out and is found dumping the muck illegally or without the permission of the competent authority, as the case may be, shall also be liable for disconnection of water, electricity and others civic amenities and the Executive Head of ULB may request the competent authority for withdrawal of recognition and registration if any granted in his/her favour including withdrawal of building sanction granted in favour of the owner concerned. In addition to the above, the dumped material shall be lifted & disposed by the ULB at the cost of the violator.

3. ULBs should also be empowered to recover the penalty amounts as per the different modes set out in Himachal Pradesh Municipal Corporation Act, 1994 and HP Municipal Council Act, 1994. In addition, the ULB should

have the liberty to initiate appropriate proceedings under any other applicable law such as Municipal Corporation Act, 1994/ HP Municipal Council Act, 1994, Environment (Protection) Act, 1986, the Indian Penal code, 1860, the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981 for violation of the SWM Rules 2016 and bye-laws framed by the ULB.

4. All amounts collected as penalties by and on behalf of the ULB under the bye-laws should be transferred to a separate bank account maintained for funds for solid waste management. These amounts shall be used towards the ULB's operation and maintenance costs for providing C&D Waste management services, salaries of personnel, incentives, grants and other uses as may be considered appropriate by the ULB from time to time.
5. Impounding of vehicle.—(i) Any officer of the Flying Squad or the police establishment either on the information received by himself or through any other source immediately on receiving such information, may stop and inspect the vehicle carrying muck for the purpose of ascertaining the required permission at any point of time and impound the same if found violating the provisions of these Bye-laws.
6. The vehicle shall only be released in case the registered owner of the vehicle applies for compounding of offence(s) under these Bye-laws.
7. The official impounding the vehicle shall immediately report to this effect in writing either to the Commissioner/Joint Commissioner of the Corporation or Executive Officer of ULB and keep the same in custody at the place designated by the ULB till it is not released to the registered owner. The halt charges of the vehicle at such designated place shall be levied at the rate of ` 1000/- per day payable by registered owner to the ULB in cash or through demand draft.
8. Compounding of offences.—All the offences punishable under these Bye-laws may, before, the institution of prosecution, be compounded by such officer as may be authorized by the ULB in this behalf, on payment of such sum as may be specified by such officer under these Bye-laws.
9. Offences to be tried summarily.—The offences which are not compounded shall be tried in a summary manner by the Special Judicial Magistrate First Class of the Corporation under section 383 of the Himachal Pradesh

Municipal Corporation Act, 1994 read with Section 260 of the Code of Criminal Procedure, 1973 or before the Special Judicial Magistrate 1st Class in the concerned court at the place of ULB.

12 CAPACITY BUILDING AND INFORMATION, EDUCATION AND COMMUNICATION

The ULBs should arrange training on the C&D Rules, bye-laws, HPSPCB guidelines and any other relevant material to all relevant state government officials to ensure they are aware of the literature around C&D Waste management. Different training and awareness modules should be prepared for various levels of government officials bearing in mind the nature of responsibilities and inherent powers under relevant law. This would ensure maximum productivity and efficient use of resources available with the state. The state government should earmark adequate amounts for training and capacity building of all levels of staff at regular intervals. This would depend on the number of staff, length of training, external agencies involved in the training, location and frequency of the training among other factors

Currently, there exists a lack of awareness among potential market players regarding utilisation of C&D Waste products. The ULB should disseminate information regarding the use and benefits of recycled C&D products among different stakeholders including members of the general public. State agencies and private associations must devise strategies to improve awareness and generate demand for C&D Waste based building material via white-papers, workshops, targeted incentives for first-time users, etc. The ULB should widely publicize the sources from where the recycled products can be procured.

There should be a separate section on management C&D Waste on the ULB website where the information about C&D Waste including rules, policies, user fees, penalties, details of collection centers/transit sites and processing facilities etc are available, along with a list of suggestions for waste minimization and an interactive section where useful ideas or experiences can be uploaded and discussed. Incentives for use of recycled material should be publicized through the website.

The ULB should use print and audio/visual media to sensitize the citizens especially RWA's about the issues arising out of C&D Waste being dumped at empty sites or along with other types of waste. The numbers around per day generation and the magnitude of the problem should be publicised and cooperation solicited from the citizens in handling the C&D Waste responsibly. The fact that C&D Waste is a separate waste stream and the available disposal options should be widely publicised using all the modes of mass communication available to the ULB. The ULB shall collaborate with technical experts, non-governmental organisations and builder/developer associations to build the IEC content and disseminate the information.

13. GRIEVANCE REDRESSAL MECHANISM

For effective functioning of C&D Waste management systems, a robust complaint redressal system is imperative. This system creates a platform for various stakeholders to voice their complaints regarding C&D Waste management and is an additional monitoring mechanism for the ULB. This system could be enabled through walk-in complaints, phone calls, SMS, online complaints, through postal service and and/or any other mechanism which the ULB may consider appropriate keeping in mind the population, per capita income, available technologies and quantity of C&D Waste generated. The ULB shall ensure that each grievance is redressed in a timely and efficient manner bearing in mind the type of grievance, inconvenience caused to public and the remedial action proposed to be taken. The ULB officials should make an area- wise periodic (daily, weekly or monthly) report of the number and type of complaints received, action taken including time taken, feedback of the complainant and pending complaints. This should be submitted to the chief executive officer or commissioner of the ULB for review and necessary action. The details of complaints received and action taken should also be available on the ULB website and its office during working hours.

A toll free number may be set up for this purpose.

SCHEDULE- I: ILLUSTRATIVE RATES FOR USER FEES

PART I –User Fees payable by Waste Generators except Bulk Waste Generators

S.no	Type of Waste Generator (excluding Bulk Waste Generators)	User Fee per month from each Waste Generator to be not less than:		
		Population > 1.0 lakhs	Population >= 0.5 lakhs and < 1.0 lakhs	Population < 0.5 lakhs
1.	For collection and transportation of C&D Waste	Rs. 30 per ton per kilometre	Rs. 30 per ton per kilometre	Rs.20 per ton per Kilometer
2.	For processing/Land Filling of C&D Waste at the Sanitary Landfill	Rs.200 per ton	Rs. 200 per ton	Rs. 200 per ton

PART II – User Fees payable by Bulk Waste Generators

For Bulk Waste Generators who do not transport their own C&D Waste, User Fee shall be

S.no	Type of service	User Fee per month from each Bulk Waste Generator to be not less than:		
		Population > 1.0 lakhs	Population >= 0.5 lakhs and < 10 lakhs	Population < 0.5 Lakhs
1.	For collection and transportation of C&D Waste	Rs.50 per ton per kilometre	Rs. 40 per ton per kilometre	Rs.30 per ton per kilometre
2.	For processing/Land Filling of C&D Waste at the Sanitary Landfill	Rs.200 per ton	Rs. 200 per ton	Rs. 200 per ton

SCHEDULE- II : ILLUSTRATIVE PENALTIES FOR NON-COMPLIANCE

S. No	Offence	Bulk Waste Generator/ Service Provider (in INR)	Small Waste Generator (in INR)	Transporter (in INR)
1.	Dumping of construction and demolition waste in storm water drains, open spaces and other non-designated areas	Rs. 5,000 per ton of C&D Waste dumped Minimum: Rs. 10,000/-	Rs. 3,000 per ton of C&D Waste dumped	3,000 per ton of C&D Waste dumped
2.	Mixing of C&D Waste with any other waste stream	4,000 per ton of C&D Waste mixed	3,000 per ton of C&D Waste mixed	3,000 per ton of C&D Waste mixed

3.	Failure to start construction, demolition or renovation works without submission and approval of the waste management plan	(i) 50,000 if the proposed built up area of the construction/infrastructure is 3000 square feet or less. (ii) For constructions having built up area of 3000 square feet or more, INR 5,000 for every 100 square feet of built up area.	N.A.	N.A.
4.	Deviations and/or non-compliance of the conditions of the waste management plan	(i) 50,000 if the proposed built up area of the construction/infrastructure is 3000 square feet or less. (ii) For constructions having built up area of 3000 square feet or more, INR 5,000 for every 100 square feet of built up area.	N.A.	N.A.

- Note:** 1. In case the C&D Waste is less than 1.0 ton, the charges shall be levied proportionally.
 2. The above charges shall be enhanced @ 10% every year on the base price.
 3. The fee will be settled as per actual weight of C&D Waste at the plant site.

Annexure-1

PUBLIC NOTICE

MANAGEMENT OF CONSTRUCTION AND DEMOLITION WASTE

NAME OF ULB.....

This is bring to the notice of the public residing in the jurisdiction of (Name of ULB.....) that Construction and Demolition Waste should not be thrown or littered on the roads/public places. In case of generation of Construction and Demolition Waste, the generator should contact online or in writing at the office of (Name of ULB.....) within three days of generation of waste for collection of waste by giving such collection charges as notified by (Name of ULB.....). After receiving information in writing from the Generator, the ULB shall arrange to lift the C & D waste and dispose it at a designated site by using its own resources or will deploy an agency for the same and shall fill the trip sheet.

It is also brought to the notice of the public that every waste generator shall keep the Construction and Demolition waste within their premises or get the waste deposited at collection centre notified by (Name of ULB.....) or handed over it to the authorized agency and also ensure that there is no littering or deposition of Construction and Demolition waste so as to prevent obstruction to the traffic or the public or drains. This notice is published in compliance of the provisions of the Construction and Demolition Waste Management Rules, 2016.

Annexure-2/3

(Name of ULB.....)

Format for Registering the Information/compliance on C&D Waste Generation

Information No & Date: _____

Compliant No. & Date : _____

Name of the Person: _____

Address & Contact No: _____

Approximate quantity of C & D Waste: _____

Approximate no. of trips required to collect the Waste: _____

Collection Charges in Rs. _____

Any other Information: _____

Signature
C&D Waste Generator
Authority

Signature
ULBs

Annexure-4

(Name of ULB.....)

TRIP SHEET

(Filled in triplicate) Sl. No _____ Date: _____

Complaint No & Date:

Name of the Person:

Address & Contact No:

Ward No.

Vehicle No:

Vehicle Type:

Equipment used (Bob CAT/JCB):

No. of trips made:

Collection Charges in Rs (paid earlier).

Balance Charges in Rs. (If any, to be paid)

***Signature of
Authorized Person of
Generator of C&D Waste.***

***Signature of
Authorised person of ULB
/Agency***

Trip Sheet to be made in triplicate.

- » *One Copy to be retained by ULBs authorized person/agency.*
- » *One Copy to be retained by the Generator of C & D Waste.*
- » *One Copy to be submitted by the agency at ULB after lifting the C& D Waste duly signed by the agency and the generators.*