

Government of West Bengal
Department of Urban Development and Municipal Affairs
(Municipal Affairs Branch)
“NAGARAYAN”, 6th Floor,
DF – 8, Sector – I, Salt Lake, Kolkata -700 064

No. 748/UDMA-15011(12)/392/2022-LS-MA SEC

Dated, Kolkata, the 4th day of October, 2023

Guidelines on specific precautionary measures to be taken by the owner/builder/lessee(s) during demotion of existing building in a congested residential area.

WHEREAS, it has been observed that a large number of new buildings are being constructed after demolition of the buildings standing on the plots in congested residential areas within various municipalities and municipal corporations without taking any precautionary measures during demolition of existing building;

WHEREAS, it is recognized that there may be a need to demolish partially or fully, an existing building for various reasons;

HOWEVER, such demolitions must not cause pollution, noise, water and air, beyond permissible limits, and must not cause disturbance to residents around the premises, must not cause hazard to neighbouring residents and workmen engaged in the demolition, and must not cause any damage to neighbouring structures;

AND WHEREAS, after obtaining permission from the concerned municipal authority regarding demolition of buildings, the concerned owner/builder/lessee(s) is required to take specific precautionary measures to comply with the relevant laws and rules during demolition of existing buildings.

But quite often it has been observed that;

1. Safety measures are not being followed, resulting in debris flying off the building and damaging property and injuring persons in the neighbourhood.
2. The dust generated due to the use of equipment to break concrete and brickwork is uncontrolled and exceeds the safe limits for particulate matter specified as per existing norms, causing dust pollution.
3. The debris is stacked on the street, obstructing free vehicular movement.
4. Site supervisor is not deployed during such demolition work at the site whereas it is absolutely imperative that a trained site supervisor remains present at all times, as long as the demolition process is on.
5. Noise generated due to use of heavy equipment often exceeds permissible limits applicable to residential zones.
6. Trees on the footpath are felled without permission of the Forest Department and are stacked on the street obstructing a part of the thoroughfare.

AND WHEREAS it has been felt necessary to frame guidelines on specific precautionary measures to be taken by the owner/builder/lessee(s) during demotion of existing building in a congested residential area for re-erection of buildings over the same plot of land;

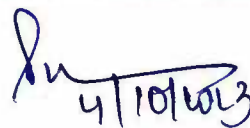
NOW THEREFORE the Department hereby introduces the following guidelines for the concerned owner/builder/lessee(s) to be followed during demotion of existing building in a congested residential area for re-erection of buildings over the same plot of land within various municipalities and municipal corporations:

1. Before beginning any demolition programme, the owner shall carry out a careful study of the structure to be pulled down and its surroundings. He shall then prepare a plan of procedure of the demolition work which shall be vetted by a qualified structural engineer.
2. The demolition plan so vetted shall be shared with the local municipal authority as well as the owners/occupants of the immediate neighbouring premises.
3. The owner shall follow the demolition protocols scrupulously so as not to damage the foundation or structures of neighbouring buildings.
4. The owner shall appoint a site engineer who shall be present at site during the entire period of demolition to ensure that all systems are in place to prevent structural damage to neighbouring buildings. The demolition work is to be executed taking care of adjoining structures under the supervision of qualified or empanelled Structural Engineer as per provision of rule 97 of the West Bengal Municipal Building Rules, 2007 / rule 20 of the Kolkata Municipal Corporation Building Rules, 2009..
5. Danger signs should be prominently displayed all around the structure to be demolished and unauthorized persons shall not be allowed access to the structure. Red lights should be put at night and a watchman should be engaged during the period of demolition.
6. Power lines and all service lines such as those of gas, water etc. should be disconnected before initiation of demolition work.
7. Movement through every sidewalk or street adjacent to the site may be regulated/restricted as may be required for safety reasons.
8. Before demolition work is started, glazed sash, glazed doors and windows, fragile and loose fixtures, etc, shall be removed. All loose plaster shall be stripped off throughout the entire buildings this also eliminates a large amount of dust producing material before more substantial parts of the buildings are removed.
9. The demolition shall always proceed systematically storey by storey in descending order and the work on the upper floors shall be completely over before any of the supporting members or other important portion on the lower floor is disturbed.
10. Dismantled materials may be thrown to the ground only after taking adequate precautions. The material shall preferably be dumped inside the building. Normally such materials shall be lowered to the ground or to the top of the sidewalk shed where provided by means of ropes or suitable tackles.
11. The unserviceable debris material should be segregated shall be removed from the demolition site to a location as required by the local civil authority. Depending on the space available at the demolition site, this operation of conveying debris to its final disposal location may have to be carried out a number of times. Materials which are likely to cause dust nuisance or undue environmental pollution in any other way, shall be removed from the site at the earliest and till then they shall be suitably covered. Such materials shall be covered during transportation as well.
12. Structural or load supporting members on any floor shall not be cut or removed until all the storeys above that floor have been demolished and removed.

13. Foundation walls which serve as retaining walls to support earth or adjoining structure, shall not be demolished until such an adjoining structure has been underpinned or braced and the earth removed by sheet piling or sheathing.
14. No demolition work should be carried out at night especially when the building or structure to be demolished is in an inhabited area. No demolition work shall be carried out during storm and heavy rain. A warning device shall be installed in the area to be used to warn the workers in case of any danger. Safety helmets conforming to IS 2925 : 1984 shall be used by the workmen where there is any likelihood of material falling from top. Goggles preferably made of celluloid lens shall be worn at the time of demolition of walls, floors, tearing of plaster, etc, especially when instruments like jack hammers are employed in demolition work, to protect the eyes from injuries from flying pieces, dirt, dust, etc, that may be blown up by the wind. It is desirable that leather or rubber gloves should be worn by the workers while demolishing RCC work or removing steel work, etc, where the hands of the workers are likely to be injured. Water may be used to reduce dust while tearing down plaster from brickwork. No unnecessary work shall go on below when demolition is in progress above. Safety belts shall be used by labourers while working at higher level to prevent falling from the structure. First-aid equipment shall be available at all demolition works of any magnitude. Also, by prior arrangement, a qualified doctor shall be available at call. When there is a possibility of fire breaking out, appropriate portable first-aid fire appliances (see IS 2190 : 1979) shall be kept at hand.
15. The noise level as specified in Noise Pollution (Regulation and Control) Rules, 2000 and other standards applicable to residential zones shall be maintained at all times.
16. The air quality as specified in the National Ambient Air Quality Standards published in 2009 shall be maintained at all times.
17. The rapid removal of waste comprising of building materials, debris and rubble resulting from construction, re-modelling, repair and demolition of any civil structure from the site and from the road side etc. shall be ensured.
18. The owner shall scrupulously follow the directions given vide Notification No. EN/3170/TIV-7/001/2009 dated, the 10th December, 2009 and the guidelines for use of Anti Smog Guns issued by the Department of Environment, Government of West Bengal for the purpose of curbing air pollution and other environmental hazards (copy enclosed).
19. All kinds of Construction & Demolition Waste generated in different areas of Urban Local Bodies within Kolkata Metropolitan Area need to be sent to Patharghata Construction & Demolition Waste processing facility developed by Kolkata Municipal Corporation.

The guideline is issued in the public interest and shall come into immediate effect.

All the municipal bodies are requested to monitor the proper implementation of the guidelines and to ensure discharge of duties and responsibilities of all stakeholders duly during carrying out of demolition works.



Special Secretary to the Government of West Bengal



**Department of Environment
Government of West Bengal
Writers' Buildings, "G" Block, (2nd. Floor),
Kolkata-700 001.**

No. EN/3170/T-IV-7/001/2009

Dated: December 10th, 2009.

DIRECTION

WHEREAS, Department of Environment, Govt. of West Bengal is entrusted to look after the execution of the different environmental laws within the territorial jurisdiction of West Bengal and also responsible for maintaining pollution free environment and also responsible for restraining different environment hazardous activities which are causing serious impact on human beings, other living creatures, plant, micro-organism, property or the environment ;

AND WHEREAS, Department of Environment has already taken different steps for controlling air pollution in the atmosphere generated from the different sources i.e. industrial source, vehicular source and burning of bio-mass;

AND WHEREAS, Department of Environment in exercising the power conferred under section 19 of the Air (Prevention & Control of Pollution) Act, 1981, has already declared entire West Bengal as 'Air Pollution Control Area';

AND WHEREAS, West Bengal Pollution Control Board conducted a study with the help of the Asian Development Bank and it is revealed that the contribution of the construction activities is one of the source of air pollution in Kolkata and its surroundings ;

AND WHEREAS, it is further revealed that burning of old tyres in hot mix plant as a fuel during construction and repairs of road for melting coal tar contributes significant obnoxious element into the air which cause a serious problem of the human beings ;

HENCE, in view of the above and in consultation with the West Bengal Pollution Control Board and in exercise of the power conferred under Air (Prevention & Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986, all the municipalities, local authorities and all other concerned Govt. Departments within the State of West Bengal, are now directed to take immediate steps to implement the following norms which need to be strictly followed by the developers, contractors or any other infrastructure developers ;

- Preventive measures need to be taken: -

- a) Wrap construction area/buildings with geotextile fabric, installing dust barriers, or other actions, as appropriate for the location,
- b) Apply water and maintain soils in a visible damp or crusted condition for temporary stabilization,
- c) Apply water prior to levelling or any other earth moving activity to keep the soil moist throughout the process;
- d) Limit vehicle speeds to 15 mph on the work site.
- e) Clean wheels and undercarriage of haul trucks prior to leaving construction site.
- f) Apply and maintain dust suppressant on haul routes.
- g) Apply a cover or screen to stockpiles and stabilize stockpiles at completion of activity by water and maintain a dust palliative to all outer surfaces of the stockpiles;
- h) Stabilize surface soils where loaders, support equipment and vehicles will operate by using water and maintain surface soils in a stabilized condition where loaders, support equipment and vehicles will operate;
- i) Stabilize adjacent disturbed soils following paving activities with immediate landscaping activity or installation of vegetative or rock cover.
- j) Maintain dust control during working hours and clean track out from paved surfaces at the end of the work shift/day. Track out must now extend 50 feet or more and must be cleaned daily, at the minimum.
- k) Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slope,
- l) Disposal of debris in consultation with the local authorities following proper environmental management practice.
- m) During construction work, including cutting of marbles, ambient noise level should not exceed more than 65 dB(A).

- **Practices to be discarded: -**

- a) Don't dispose of debris indiscriminately,
- b) Don't allow the vehicles to run at high speed within the work site.
- c) Don't cut materials without proper dust control/noise control facility.
- d) Don't keep materials without effective cover.
- e) Don't allow access in the work area except workers to limit soil disturbance and prevent access by fencing, ditches, vegetation, berms or other suitable barrier.
- f) Don't leave the soil, sand and cement stack uncovered.
- g) Don't keep materials or debris on the roads or pavements.
- h) Burning of old tyres in hot mix plant as a fuel during construction and repair of the roads for melting coal tar should be discarded ;

NOW THEREFORE, it is made clear that any developers, contractors or infrastructure developers either Govt. or Private failed to comply with the aforementioned statutory norms, Department of Environment and West Bengal Pollution Control Board will take necessary action under Air (Prevention & Control of pollution) Act, 1981 and Environment (Protection) Act, 1986 which may lead to stoppage and prohibition of the work including closure and other legal action as warranted under the law including imposition of the 'Pollution Cost'.

It is further directed that all Municipal Corporations, Municipalities and Panchayats should also be at liberty to take necessary action against the violators under the Municipal Laws and Panchayat Law.

But it is made clear that Local Authorities i.e. Municipal Corporations, Municipalities and Panchayats are responsible to implement the aforementioned guidelines meticulously for the purpose of curbing air pollution and other environmental hazards of their respective jurisdiction.

Local Police Station is also directed to render all necessary help to the Local Authorities to implement the aforementioned direction in a befitting manner.

This order will take effect from 01-01-2010 through out the State of West Bengal.

By Order,

Sd/-

(M. L. Meena)

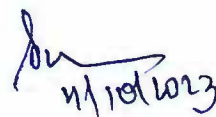
Principal Secretary to the Govt. of West Bengal.
Department of Environment.

Advisory for use of Anti-Smog Guns

Issues	Guidelines
Capacity and nos. of ASG to be used	<ul style="list-style-type: none"> Construction and Demolition sites having area more than of 20, 000 sq. m should have at-least 02 nos. of ASGs. These should be capable of producing water droplets in the range of 10μ -50μ. One ASG having throwing distance capacity 70-100 m and 01 no. of ASG having throwing distance capacity 30-50 m. This will also take care of water & power saving, stand-by machine and use during small dust generating activities. Requirements of installations on wind-ward side and leeward side shall also be fulfilled. These machines will cover all sorts of dust generating activities as operation of machine is for around 30 minutes once in around 2-3 hours. On rotation basis, other areas of project can be covered. Regarding additional or maximum number of machines, there cannot be any straight-line formula. This may be left to Project Proponent. He has to ensure compliance at all the times for entire area. Details regarding specification of nozzles, power of motor, pressure which can be generated and throwing capacity be engraved on the ASG by the manufacturer.
Source of water	<ul style="list-style-type: none"> Class A or Class B Water without conventional treatment but only after disinfection so as to make water free from coliforms, viruses and bacteria [details of Class A and B are presented in "Designated Best Use Water Quality Criteria" developed by CPCB.]. Criteria are available on website of CPCB. Municipal Supply Water. Use of treated sewage be avoided
Amount of water to be used	<ul style="list-style-type: none"> Best quality nozzles capable of generating water droplets in the range of 10μ-50μ and optimum hydraulic pressure be used to generate atomized water droplets. Environmental Clearance granted by MoEF&CC, SEIAA and CTE granted by SPCBs / PCCs shall take this factor into account for estimating total water consumption.
Source of fuel for the engine	<ul style="list-style-type: none"> Care shall be taken that there will be minimum noise and emission into air during operation of ASG.
Source of fuel for the moving van (if applicable)	<ul style="list-style-type: none"> Hence, wherever possible, conventional electric supply must be obtained and used for operation. Alternatively, use of CNG, LPG operated Gensets be encouraged. Fossil fuels shall only be used in emergent conditions when aforementioned sources of powers are not available and subject to verification by SPCBs/PCCs and Local Authority.
Time span of use	<ul style="list-style-type: none"> Normally for 30 minutes as a continuous operation in every 2-3 hours. However, operation shall depend upon site conditions, types of construction activities going on at the site and local environmental conditions.
Energy Meter	<ul style="list-style-type: none"> Energy meter should be installed at ASG for checking/ monitoring use of ASG at site.
Capacity of the Motor	<ul style="list-style-type: none"> Be specified by manufacturing company. Details regarding specification of nozzles, power of motor, pressure which can be generated and throwing capacity be engraved on the ASG by the manufacturer.
Others	<ul style="list-style-type: none"> Logbook on operation and maintenance on use of ASG and associated facilities be maintained.

Copy forwarded for information and necessary action to the: -

1. Municipal Commissioner, Kolkata Municipal Corporation.
 2. Special Commissioner, Department of Urban Development & Municipal Affairs.
 3. Director, State Urban Development Agency.
 4. Special Secretary (all), Department of Urban Development & Municipal Affairs.
 5. Financial Advisor & E.O. Special Secretary, Department of Urban Development & Municipal Affairs.
 6. Chief Engineer, Municipal Engineering Directorate.
 7. Additional Secretary (all), Department of Urban Development & Municipal Affairs.
 8. Director of Local Bodies, West Bengal, Pura Prashasan Bhavan, DD – I, Salt Lake, Kolkata – 64.
 9. District Magistrate, _____, P.O. _____, District _____.
 10. Commisioner, Asansol/ Bidhannagar/ Chandernagore / Durgapur/ Howrah / Siliguri Municipal Corporation,
P.O. _____, Dist.- _____.
 11. Chairman / Chairperson, Board of Administrators / Administrator, _____
Municipality/Notified Area Authority, P.O. _____, District _____.
 12. Senior Deputy Secretary, Department of Urban Development & Municipal Affairs.
 13. Private Secretary to the Hon'ble Minister-in-Charge, U D & M A Department.
 14. Sr. P.S. to Principal Secretary, U D & M A Department.
 15. Sr. P.S. to Principal Secretary, Environment Department.
 16. Section Officer, I T & e-Gov. Cell, U D & M A Department.
- He is requested to upload the same in the departmental website.
17. Guard file of Law & Statutory Wings, U D & M A Department.



Special Secretary to the Government of West Bengal