केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

SPEED POST

CP-25/4/2022-UPC-I-HO-CPCB-HO ५५२७-५५६१ Sept 21, 2022

To,

The Chairman
All SPCBS/PCCs
(List enclosed)

Direction under section 18 (1) (b) of "The Air (Prevention and Control of Pollution) Act, 1981" in compliance of Hon'ble Supreme Court's Order dated 05.01.2021 in the matter of WP (C) No. 681 of 2020 titled as "Rajeev Suri Vs. Union of India & Others, and W. P. (C) 845 of 2020, titled as "Meena Gupta Vs. Union of India & Others.

WHEREAS, amongst others, under section 17 of the Air (Prevention and Control of Pollution) Act, 1981, one of the functions of the State Pollution Control Board (SPCB)/Pollution Control Committee (PCC), is to plan a comprehensive programme for the prevention, control or abatement of air pollution in the State and to secure the execution thereof; and

WHEREAS, under Section 16 of the Water (Prevention & Control of Pollution) Act, 1974 and under 16 of the Air (Prevention & Control of Pollution) Act, 1981 one of the functions of the Central Pollution Control Board (CPCB) constituted under Water (Prevention & Control of Pollution) Act, 1974 is to coordinate activities of the SPCBs/PCCs and to provide technical assistance and guidance to SPCBs/PCCs; and

WHEREAS, the Ministry of Environment, Forest and Climate Change (MoEF&CC) has notified "The Construction and Demolition Waste Management Rules, 2016" vide GSR 317(E); dated 29th March, 2016 (henceforth known as the said rules); and

WHEREAS, in exercise of the powers conferred by sections 6 and 25 of "The Environment (Protection) Act, 1986" (29 of 1986), the Central Government has made "The Environment (Protection) Amendment Rules, 2018 vide G.S.R. 94(E); dated 25th January, 2018; and

WHEREAS, in compliance of Rule 10 sub rule 1(a) of the said rules, CPCB has developed and published "Guidelines on Environmental Management of Construction & Demolition (C&D) Wastes (March, 2017)" to promote an integrated approach, whereby environmental management of construction and demolition waste and approach towards reduction of environmental impacts are emphasized; and

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032
दूरभाष/Tel : 43102030, 22305792 वेबसाईट/Website : www.cpcb.nic.in

WHEREAS, further in continuation of the said rules, CPCB has developed and published "Guidelines of dust mitigation measures in handling construction material and C&D wastes (November, 2019)" to address dust arising during handling of construction material and C&D wastes on site and off site; and

WHEREAS, the said Rules, Guidelines and Dust Mitigation Measures are available at the website of CPCB at the weblink www.cpcb.nic.in; and

WHEREAS, CPCB has issued following directions to SPCBs/PCCs including communications with regard to dust management Rules/Guidelines:

(i) Directions under section 18(1)(b) of the "Air (Prevention and Control of Pollution) Act, 1981" issued on *13th December, 2017* to all the SPCBs/PCCs for displaying the Notice regarding Construction and Demolition Waste Management by Contractors/Builders/Developers/Operators. Template of display was also circulated.

(ii) All the SPCBs/PCCs were communicated on *05th February, 2018* for their information regarding "The Environment (Protection) Amendment Rules, 2018" notified vide G.S.R. 94(E) dated 25th January 2018, whereby following Rules were notified:

(a) "Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance"

(b) "Mandatory Implementation of Dust Mitigation Measures for all Construction and Demolition Activities" under sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986).

For effective implementation of above Rules, they were advised to incorporate the above as a part of consent management.

(iii) For effective management of dust, a document titled as 'Dust Management in Urban Regions: Road Map' prepared by CSIR-NEERI was circulated among all SPCBs/PCCs on *13th November, 2019.*

WHEREAS, in the matter of WP (C) No. 681 of 2020 titled as "Rajeev Suri Vs. Union of India & Others, and W. P. (C) 845 of 2020, titled as "Meena Gupta Vs. Union of India & Others, Hon'ble Supreme Court vide Order dated 05.01.2021 issued following directions:

"We also call upon the respondent MoEF to consider issuing similar general directions regarding installation of adequate capacity of smog tower(s) as integral part in all future major development projects whilst granting development permissions, particularly in cities with bad track record of air quality - be it relating to Government

buildings, townships or other private projects of similar scale and magnitude, including to use smog guns during the construction activity of the Project is in progress."

WHEREAS, MoEF&CC vide letter dated 29th July, 2022 along-with Office Memorandum dated 15th July, 2022, has asked for action in the matter to ensure compliance of Orders issued by Hon'ble Supreme Court of India; and

WHEREAS, two smog towers have been installed in Delhi one each by CPCB and DPCC and studies to evaluate their performance are in progress.

NOW, THEREFORE, in view of the above and in exercise of powers delegated under Section 18 (1) (b) of "The Air (Prevention and Control of Pollution) Act, 1981" to the Chairman, CPCB, you are hereby directed as follows:

1. To ensure that construction and demolition activities are equipped with adequate dust mitigation measures.
2. To ensure that large construction and demolition activities having area more than 20,000 square metres are equipped with adequate dust mitigation measures including installation of anti-smog guns. Guidelines on anti-smog guns are enclosed.
3. To ensure that a robust system of surveillance for compliance of above directions is put in place and any violation is dealt strictly as per Law.

Receipt of these directions shall be acknowledged immediately and action taken report shall be communicated to CPCB within 3 weeks from the date of issue of these directions.

[Prashant Gargava]
Member Secretary

Copy to:

1.	The Additional Secretary CP Division, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi – 110003	For kind information
2.	Head, AQM Division CPCB, Delhi – 110032	For information
3.	Head, IT Division CPCB, Delhi – 110032	With a request to upload on the website

21/9/2022

[N. K. Gupta]
Divisional Head, UPC-I

LIST OF SPCBs/PCCs

1. The Chairman,

   Assam Pollution Control Board
   Bamunimaidam, Guwahati,
   Assam-781021

2. The Chairman,

   Andhra Pradesh State Pollution Control Board
   D.No. 33-26-14 D/2, Near Sunrise Hospital,
   Pushpa Hotel Centre, Chalamvari Street,
   Kasturibaipet, Vijayawada,
   Andhra Pradesh – 520 010

3. The Chairman,

   Arunachal Pradesh State Pollution Control Board
   Govt. of Arunachal Pradesh,
   Department of Environment & Forests,
   Paryavaran Bhawan, Papu Hill, Yupia Road,
   Naharlagun, Arunachal Pradesh - 791110

4. The Chairman,

   Bihar State Pollution Control Board
   Parivesh Bhawan, Plot No. NS-B/2
   Paliputra Industrial Area, Patliputra,
   Patna, Bihar – 800023

5. The Chairman,

   Chhattisgarh Environment Conservation Board,
   Paryavas Bhavan, North Block Sector-19,
   Naya Raipur, Chhattisgarh- 492002

6. The Chairman,

   Goa State Pollution Control Board
   Nr. Pilerne Industrial Estate,
   Opp. Saligao Seminary,
   Saligao – Bardez, Goa – 403511

7. The Chairman,

   Gujarat Pollution Control Board
   Paryavan Bhavan, Sector 10- A,
   Gandhinagar, Gujarat– 382043

8. The Chairman,

   Himachal Pradesh Pollution Control Board
   Him Parivesh, Phase-III, New Shimla,
   Himachal Pradesh-171009

9. The Chairman,

   Haryana State Pollution Control Board
   C-11, Sector-6, Panchkula,
   Haryana -134109

10. The Chairman,

    Jharkhand Pollution Control Board
    T.A Building, HEC, P.O. Dhurwa,
    Ranchi, Jharkhand – 834004

11. The Chairman,

    Karnataka State Pollution Control Board,
    Parisara Bhavan, 4th & 5th Floor, # 49,
    Church St., Bangalore,
    Karnataka-560001

12. The Chairman,

    Kerala State Pollution Control Board,
    Plamoodu Jn., Pattom Palace P.O.,
    Thiruvananthapuram, Kerala-695004

13. The Chairman,

    Madhya Pradesh Pollution Control Board,
    E-5, Arera Colony, Paryavaran Parisar,
    Bhopal, Madhya Pradesh- 462016

14. The Chairman,

    Maharashtra Pollution Control Board,
    Kalpataru Point, 2nd – 4th Floor,

Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E),
Mumbai, Maharashtra – 400022

15. The Chairman,

Manipur Pollution Control Board,
Lamphelpat, Imphal,
Manipur-795004

16. The Chairman,

Meghalaya Pollution Control Board,
"Arden" Lumpyngngad,
Shillong, Meghalaya-793014

17. The Chairman,

Mizoram Pollution Control Board,
New Secretariat Complex,
Khatla Thlanmual Peng, Khatla, Aizawl,
Mizoram-796001

18. The Chairman,

Nagaland Pollution Control Board,
Signal Point, Dimapur,
Nagaland-797112

19. The Chairman,

Odisha Pollution Control Board
A-118, Nilakanta Nagar, Unit –VIII,
Bhubaneshwar, Odisha – 751012

20. The Chairman,

Punjab Pollution Control Board
Vatavaran Bhawan, Nabha Road,
Patiala, Punjab-147001

21. The Chairman,

Rajasthan Pollution Control Board
4, Jhalana Institutional Area,
Jhalana Doongri, Jaipur,

Rajasthan – 302004

22. The Chairman,

Sikkim State Pollution Control Board
Government of Sikkim, Deorali,
Gangtok, Sikkim -737102

23. The Chairman,

Tamil Nadu Pollution Control Board
76, Mount Salai, Guindy,
Chennai, Tamil Nadu -600032

24. The Chairman,

Telangana State Pollution Control Board
Paryavaran Bhawan, A-3,
I.E., Sanath Nagar,
Hyderabad, Telangana-500018

25. The Chairman,

Tripura Pollution Control Board
Vigyan Bhawan Pandit Nehru Complex,
Gorkhabasti, PO: Kunjaban,
Agartala, Tripura-799006

26. The Chairman,

Uttarakhand Pollution Control Board
Gaura Devi Bhawan, 46 B IT Park Sahastradhara,
Dehradun, Uttarakhand – 248001

27. The Chairman,

Uttar Pradesh Pollution Control Board
Building.No. TC-12V Vibhuti Khand,
Gomti Nagar, Lucknow,
Uttar Pradesh-226010

28. The Chairman,

West Bengal Pollution Control Board
Paribesh Bhavan, 10A, Block-L.A.,

Sector III, Bidhan Nagar,
Kolkata – 700106

29. The Chairman,

Chandigarh Pollution Control Committee
Paryavaran Bhawan, Ground Floor,
Sector-19 B Madhya Marg,
Chandigarh

30. The Chairman,

Pollution Control Committee,
Dadra and Nagar Haveli and Daman and Diu
1st Floor, Udhyog Bhavan Bhenslore,
Dunetha NaniDaman, Daman – 396210

31. The Chairman,

Delhi Pollution Control Committee
Government of N.C.T.
Delhi 4th Floor, ISBT Building,
Kashmere Gate, Delhi-110006

32. The Chairman,

Jammu & Kashmir State Pollution Control Board
Parivesh Bhawan, Forest Complex,
Gladni, Narwal, transport Nagar, Jammu,
Jammu and Kashmir – 180004

33. The Chairman,

Puducherry Pollution Control Committee
III Floor, Phb Building, Anna Nagar,
Puducherry

34. The Chairman,
Lakshadweep Pollution Control Committee
Lakshadweep Administration of UT-Lakshadweep
Dept. of Science, Technology & Environment,
Kavarati – 682555, Lakshadweep

35. The Chairman,
Andman & Niccobar Pollution Control Committee
Department of Science & Technology,
Dollygunj, Port Blair – 744103
South Andaman, A & N Islands

Annexure

Guidelines/Mechanism for using Anti Smog Gun in Construction and Demolition Projects having area more than 20,000 sq. metres

1. Background

Generation of dust is the main concern for construction and demolition sites. Activities including excavation, demolition, storage-handling & transportation of construction materials and wastes etc. generate huge quantity of dust which ultimately contributes towards deterioration of ambient air quality, if no control or mitigation measures are adopted.

In this context it is to be mentioned that, the Hon'ble Supreme Court vide order dated 25.11.2019 in case of W.P (C) 13029 of 1985 directed CPCB to ascertain efficacy of "anti -smog Gun" for pollution control in Delhi and submit a report within ten days. In compliance with the same, CPCB along with Delhi Pollution Control Committee (DPCC) conducted studies on efficacy of anti-smog gun at two sites namely- Central Park Resorts, Gurugram (on 01.12.2019) and Anand Vihar, Delhi (on 02.12.2019) and submitted study report. Considering findings of the said report, Hon'ble Court vide order dated 13.01.2020 mandated use of anti-smog guns in all construction projects in Delhi-NCR having built-up area more than 20,000 sq. meters which mandatorily require environmental clearance. Further, MoEF&CC vide its letter dated 27.01.2020 (Q-18011/03/2018-CPA), referring the above order, requested CPCB to evolve a mechanism for using anti-smog gun in all construction projects in Delhi-NCR having more than 20,000 sq. meters built-up area and essentially requiring environmental clearance.

In this regard, CPCB convened a meeting on 26.02.2020 of the various stakeholders including smog gun manufacturers/sellers, construction project proponents to deliberate upon the matter. Further, Report of the high level committee constituted by GoI and CPCB's Report on efficacy of anti-smog guns and other relevant literature were considered for preparation of 'Mechanism for using anti-smog gun in construction projects in Delhi-NCR having more than 20,000 sq. meters built-up area essentially requiring environmental clearance'.

Subsequently in December 2020, an Expert Committee was constituted by Government of Delhi under the Chairmanship of Special Secretary, Department of Environment, GNCTD and comprising of the members from CPCB, CPWD, NBCC, PWD, DMRC, DPCC and Officers from Department of Environment, GNCTD. Meetings of the Committee were convened on 31.12.2020 and 13.01.2021 and issues were discussed at length. Manufacturers of ASGs were also invited for presentations on 13.01.2021.

Present Guidelines/Mechanism for using anti-smog gun in construction and demolition sites having areas more than 20, 000 sq. metres, are prepared based on earlier guidelines prepared by CPCB and subsequent interaction made with the Experts and ASG manufacturers during December 2020- January 2021.

2. Working Principle

Anti-smog gun (ASG) is a device spewing fine nebulised water droplets (atomized water droplets) through high pressure propellers in air making a canopy effect and helping particles from air get increased mass and settled by inertia. ASG uses high pressure water fogging with turbo air flow which creates a ultra-fine fog consisting of very fine water droplets (10-50 micron size). These tiny water droplets absorb the smallest dust particles in the air, yet fall to the ground without wetness.

Anti-smog gun also called spray gun, mist gun or water cannon is suitable for suppressing or settling down localized dust in a work-zone. It is found to be suitable for controlling industrial dust in mining, grinding, coal or mineral handling and stone crushers.

3.0 Factors Governing Deployment of ASGs

3.1 Nozzle and propeller configurations

ASGs come with different nozzle and propeller configurations. Normally, coarser nozzles (about 50 µm water droplets) are used in construction sites, mining areas or other industrial applications; however the same can be customized for controlling dust in urban areas having a capability to spray water mist by using 10 – 50 µm nozzlesto ensure that, the water droplet size be within the range of 10 – 50 µm. Sizes and the water spraying capacity may be tailor made for different purposes.

3.2 Water Supply to ASGs

Availability and quality of water are also important factors. ASG customized for urban areas typically uses 40 to 250 liters of water per minute. This amount may vary depending upon the type& specifications of ASG.

Sourcing and quality of intake water happens to be an important factor which needs to be pre-planned. Water to be used should be free from coliforms, viruses and bacteria. If necessary, disinfection of water may be practiced. Outlet of water tank may be fitted with filters to prevent entry of undesirable solids which may clog nozzles. Use of treated waste water is not advised in active work-zones where construction workers are expected to be present.

The anti-smog gun typically has a water tank attached to it. It is advised that Project proponent, depending on constraints of movement/shifting of the whole machine set-up including water tank and fixtures, may go for installing separate water tanks at each identified work zone so that only gun could be shifted as per requirement and could be coupled with the already installed water tanks.

3.3 Zone of influence

Water throw distance is an important criterion for successful application of this device. Manufacturers produce anti-smog guns in the range of 30-100mtrs water throw distance. Smog guns having throwing capacity of 50 mts shall cover an area of approx..7000sq.m.at a time and having throwing capacity of 100 mts shall cover an area of approx.. 30000sq.m. The ASG can be rotated vertically by an angle of -5° to 40°± 5°. Effective height of throwing water from a 50 m radius ASG would be maximum about 25 to 30m. The canon can rotate by 320° (manually or by remote control).

3.4 Types of Smog – Guns

Anti-smog guns are of different types and forms like manual smog guns, semi-automatic smog guns and automatic smog guns. It may be mounted over a simple manually movable trolley or mounted on a truck thereby differing in costs, manoeuvrability and ROW/operational space. Different types of technology based ASGs are available.

3.5 Frequency of Operation

Anti-smog gun is generally required to be operated for around 30 minutes for suppressing dust in that zone. However, frequency may vary with seasons, type of construction activities going on and site conditions.

3.6 Fuel/Power supply

It is suggested to use feeder electric power for operation of anti-smog guns at site and avoid use of Generator sets based on fossil fuels and truck power as much as possible. Capacity, size and other features of the machine may be best selected by the project proponents depending on size of the project, area to be covered, site conditions, scope of shifting and moving the machine in specific site conditions, availability and ease of supplying water etc.

3.7 Advisory for use of Anti-Smog-Gun

It is advised that depending upon the size of the construction project, project proponent should use the anti-smog-guns. Following issues may be considered:

Issues	Guidelines
Capacity and nos. of ASG to be used	▪ Construction and Demolition sites having area more than of 20, 000 sq. m should have at-least02 nos. of ASGs. These should be capable of producing water droplets in the range of 10 μ -50 μ ▪ 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	▪ 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	▪ Best quality nozzles capable of generating water droplets in the range of 10 μ -50 μand 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 Source of fuel for the moving van (if applicable)	▪ Care shall be taken that there will be minimum noise and emission into air during operation of ASG. ▪ Hence, wherever possible, conventional electric supply must be obtained and used for operation. ▪ Alternatively, use of CNG, LPG operated Gensetsbe 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	• 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	• Energy meter should be installed at ASG for checking/monitoring use of ASG at site.
Capacity of the Motor	• 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	• Logbook on operation & maintenance on use of ASG and associated facilities be maintained.

4.0 Modalities for implementation:

a) Inventorization of existing & proposed Construction Sites (>20000 sqm) by concerned SPCBs/PCCs.

b) Directions to be issued to the individual project proponent for installation of smog-gun(s) at each project site (> 20000 sqm) covering prominent dust generating activities such as excavation, demolition, storage-handling & transportation of construction materials by the SPCBs/PCCs.

c) The project proponent to select the capacity, size and other features of the machine to ensure proper coverage of the site based on the factors enumerated in section 3.0 to the satisfaction of concerned SPCBs/PCCs.

d) The project proponent to make necessary on-site arrangements for water, power and movement of smog guns subject to verification by the concerned SPCBs/PCCs. Water and power consumptions pertaining to operation of anti-smog gun need to be recorded on daily basis.

e) For proposed new projects, conditions related to deployment of smog guns may be included in the EC issued by concerned authority.

f) Inspection of C&D sites must be carried out by SPCBs/PCCs to verify that anti-smog guns are being used at C&D sites. Assessment and validation of adequacy of required control measures for dust control are to be conducted by SPCBs/PCCs. Accordingly; necessary modification in the Consent shall be made which will also include submission of maintenance records.

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