AIR LAW&POLICY Reporter

An update on legal and policy development in the field of Air Pollution in India

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INTRODUCTION

Air Pollution has been one of the central issues in the National Green Tribunal and the Supreme Court. In the initiative to deal with this persisting concern, a number of developments have taken place in law and legislation.

While all the institutions and the judiciary seem to wake up during the times of environmental crisis due to appalling levels of air pollution, the momentum gets reduced when visible pollution goes down. Further, the actions during the emergency situation are all taken in the eleventh-hour and this has proven to affect effective implementation, thereby rendering it futile.

Moreover, as always, the actions and the measures undertaken by organizations, executive and the judiciary to deal with air pollution continues to keep Delhi in focus ignoring a number of states across India that are as affected and are even worse off.

This edition of the Air, Law and Policy Reporter has covered all the legal developments that have taken place in the area of air pollution since July 2018.

DEVELOPMENTS IN SUPREME COURT ORDERS ON AIR POLLUTION – M.C. MEHTA CASE

Pet Coke and Furnace Oil

The Environment Pollution (Prevention & Control) Authority (EPCA) Report indicated that the sulphur content in pet coke and furnace oil is extremely high and that it is a major cause of pollution in Delhi and NCR. The Supreme Court has therefore elaborately considered the issue of air pollution caused due to the use of Pet coke and furnace oil as fuel. A number of meetings were held between various stakeholders based on the responses received from various institutions such as CSIR, TERI, NPL, CPCB and Ministry of Petroleum and Natural Gas to understand the issue better.[1] Natural gas and electricity were identified and accepted as viable substitutes. Supreme Court has heard this matter in length and the Ministry of Environment, Forest and Climate Change has been setting standards and taking steps accordingly. The Bench constituting Justice Madan Lokur and Justice Deepak Gupta heard the M.C. Mehta vs. Union of India case with respect to the EPCA Report 79, 80 and 87 which is in regard to the issue of Ban of Pet Coke.

On 26th July[2] the Ministry of Petroleum and Natural Gas submitted that they have been in discussion with EPCA and Ministry of Environment, Forest and Climate Change and have come to the consensus that Pet Coke will only be used as a pre-stock feeder and not as a fuel.

There will be a complete ban on import of Pet Coke and encourage the use of Domestic Pet Coke, in accordance to the WTO compliance standards.

They have permitted the use of Pet Coke in five industries namely Calcium Carbide, Lime Kiln, Gasification, Cement Industry, which will be in compliance with the PM_{10} standards.

The Report No. 79 was disposed off.

Court also heard an Interlocutory Application on permitting use of pet coke in Aluminium and Steel Industries, where it directed that the representations to be sent to the Ministry in this regard and shall re-consider it in the month of October.

Implementation of Emission Standards of Thermal Power Plants December 2015

The implementation of December, 2015 standards for Thermal Power Plants which were to be implemented by December, 2017, with regard to this on 25th July, 2018[3], it was pointed out by Amicus and Ritwick Dutta, that there were about 650 coal based thermal power plants in the country, out of which 82 have already retired or be retiring in 2019, with remaining balance of 568 coal based

[1] M.C. Mehta vs. Union of India (W.P. (C) No. 13029/1985) order dated 17.01.2017

[2] M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 26.07.2018

[3] M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 25.07.2018

thermal power plants. Most of these Thermal Power Plants have more than 500 MW and are located in densely populated area of more than 400 persons per sq. km.

Justice Madan Lokur and Justice Deepak Gupta holding the Ministry of Power responsible for the lack of implementation and enforcement of the Orders of the Supreme Court stated that the Ministry of Power has absolutely no intention of doing anything to reduce the Air Pollution generated by Coal Based Thermal Power Plants.

In conclusion, The Supreme Court has directed learned ASG Mr. A.N.S. Nadkarni to convene a meeting of senior officers of the Ministry of Power or any other Ministry including MoEF&CC, which will also be attended by Amicus Ms.Sunita Narain as well as Mr.Ritwick Dutta, Counsel. The Court also directed Union of India to file affidavit indicating the number and location of coal based thermal power plants that have 500 MW of installed capacity and where the population density is more than 400 people per sq. km.

In pursuance of the order a meeting was held, on 6th August, 2018 in which it was agreed that a revised plan will be submitted by Ministry of Environment, Forest and Climate Change focusing on areas with high human density, projects above 500MW and those projects located in critically polluted area. It was also submitted that the Government will implement the prescribed standards by 2021, latest by 2022.

On 20th August, 2018 an affidavit was submitted by the Ministry in pursuant to the order dated 25th July, 2018 indicating the number and location of coal based thermal power plants that have 500 MW of installed capacity and where the population density is more than 400 persons per sqm.

On 7th September[4], It was submitted by the ASG, that NTPC and DVC plants within critically polluted areas and densely polluted areas are expected to comply with PM and SOx standards by December 2021, for NOx, without dilution of norms the plants are expected to comply by December 2022.

It was further recorded that Ministry of Power will come up with a mechanism on Merit order Dispatch for complying Power Plant.

Shift from BS IV Fuel to BS VI Fuel by 2019

EPCA in its Report No. 71 has proposed that the Government has been in discussion with the Ministry of Petroleum and Natural Gas that it will make a shift from BS IV fuel to BS VI fuel by 01.04.2019, which would benefit all the citizens of our country by substantially reducing pollution levels. After much deliberated discussion the Ministry of Petroleum and Natural Gas has assured to the Court that BS VI fuel will be made

[4]M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 07.09.2018

available in 17 districts out of 23 districts in NCR and 2 districts adjoining NCR. The Ministry has also assured that by 01.10.2019 BS VI fuel will be available in districts of Haryana including Gurugram. The Ministry of Petroleum and Natural Gas submitted thatefforts will be done to provide BS VI standard fuel in the country by 01.04.2020.

On 20th July, 2018[5], the Ministry of Petroleum and Natural Gas filed an affidavit stating that the manufacture on BS IV standard vehicles would be allowed till 31.03.2020, and if permitted after 31.03.2018, it will affect the emission standards of the particulate matters and NOx. Mr. Sandeep Narain, learned counsel appearing for SIAM stated that by a notification dated 20.02.2018, it has been notified that the vehicles manufactured upto 01.04.2020 can be registered till 30.06.2020 and in case of commercial vehicles upto 30.09.2020.

As part of its pollution reduction efforts and easy implementation of odd-even scheme in the Delhi-National Capital Region (NCR), the Supreme Court has approved the plan for hologram-based colour-coded stickers that would indicate the nature of the vehicle -- petrol, electric, hybrid, diesel or BS-VI compliant.

The diesel vehicles plying in Delhi will have to paste orange stickers on their windshield, while petrol and CNG vehicles will have to carry blue stickers. The court also asked the ministry to consider having green number plates for electric and hybrid vehicles. The stickers will also have year of manufacturing of vehicles that will help authorities to spot vehicles that are not allowed to enter in Delhi.

The Supreme Court bench comprising Justices Madan Lokur, Justice Deepak Gupta and Justice Abdul Nazeer asked the Ministry of Road Transport and Highways (MoRTH) to implement the use of coloured stickers on vehicles plying in Delhi-National Capital Region (NCR) by September 30.

The stickers will help the enforcement agencies to identify whether a vehicle is running on petrol or diesel. The agencies were finding it difficult to identify the vehicles as the diesel vehicles of more than 10 years and petrol ones of more than 15 years are not allowed to enter in Delhi.

The apex court is hearing a petition on air pollution in Delhi-NCR and had asked for suggestion to control pollution in the city. On 23rd July[6], the Amicus Curie had suggested the bench that colour-coded stickers could be pasted on vehicles to give an indication of the nature of vehicle. The Amicus had said that such stickers, as used in Paris, would be more effective than having the "odd-even" vehicle rotation scheme in Delhi and it would also help in identifying older vehicles.

On 13th August[7], the Bench constituting Justice Madan Lokur, Justice Deepak

[5]M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 20.07.2018

[6]M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 23.07.2018

[7]M.C. Mehta vs. Union of India and Ors. W.P. (C) No. 13029/1985 order dated 13.08.2018

Gupta and Justice Abdul Nazeer, heard the Amicus and it was submitted by the Amicus that Hologram based sticker of 'light – blue colour' should be used for Petrol/CNG vehicles and 'Orange colour' should be used for diesel vehicles. This would be applicable only in NCR.

It was further submitted that the Additional Solicitor General may consider providing 'Green Colour' sticker to strong hybrid vehicles and electric vehicles.

The Bench suggested that ASG shall take a decision on providing 'Green Colour' stickers within 2 weeks and as for the 'Light – blue and Orange colour' stickers are concerned they should be effectively implemented latest by 2nd October, 2018. The Supreme Court pronounced the judgment on BS IV to BS VI standard fuel on 24thOctober, 2018.

The Bench headed by Justice Madan Lokur, Justice Deepak Gupta and Justice Abdul Nazeer, on 24th October, 2018, that the BS VI standard fuels will be available to entire country by April, 2020, and it will be available in Delhi – NCR by 2019.

The fuel is already available in the National Capital Territory of Delhi from 01.04.2018, barring few places, it shall be available in the entire NCR from 01.04.2019.

M/s. Hero MotoCorp. has begun developing BS VI compliant models and it aims to introduce such product much before the timeline of 2020.

Keeping in mind the Article 21 of the Indian Constitution, the bench observed that 'There can be no compromise with the health of the citizens and if one has to choose between health and wealth, health of the teeming millions of this country will have to take precedence over the greed of a few automobile manufacturers.

There will be massive improvement in environmental terms, once BS VI standards are enforced. There will be 68% improvement in $PM_{2.5}$

According to the sub - rule 21 of Rule 115 of the Central Motor Vehicles Act, 1989 the BS IV norms vehicles will be registered only upto 30.06.2020. Category M and N[8] vehicles will be registered upto 30.09.2020, but in the view on the Supreme Court that is violative of Article 21 as it extends the time of registration beyond March, 2020.

Therefore, the Supreme Court in the exercise of the power vested in this Court under Article 142 of the Constitution, read down sub – rule 21 of Rule 115 of the Central Motor Vehicles Act, 1989 and interpreted and understood to be read as no motor vehicle conforming to the emission standard Bharat Stage IV shall be sold or registered in the entire country with effect from 01.04.2020.

REFERENCES

1. *M.C. Mehta Vs. Union of India*, WP (Civil) No. 13029/ 1985

[8] Central Motor Vehicles Act, 1989 http://www.tn.gov.in/sta/Cmvr1989.pdf

SUPREME COURT ON FIRECRACKERS

The Supreme Court Bench pronounced the judgment on **Arjun Gopal vs. Union of India (W.P. (C) No. 728/ 2015)**[9] with respect to manufacturing, sale and use of Firecrackers during festive season and marriage and other occasions.

The bench headed by Justice A.K. Sikri and Justice Ashok Bhushan did not provide a blanket ban on the sale and use of manufacture of firecrackers but have put some restrictions on the use, sale and manufacturing of the same.

The Supreme Court issued specific directions as follows:

1. Use of Reduced Emission firecrackers (Green crackers: Safe Water and air sprinklers (SWAS).Green Crackers according to the research and google search means the crackers would use more of nitrogen-based fuel rather than sulfur, which would reduce the NOx and SO2 emissions by 30-35%. and as a consequence of this all other firecrackers would be banned.
2. The manufacture, sale and use of joined crackers are banned.
3. Only licensed traders will be allowed to sell firecrackers which are permitted by this order.
4. No e-commerce website is allowed to sell firecrackers.
5. PESO is directed to review the composition of the fireworks and submit a report within 2 weeks.
6. Those crackers already produced and do not comply with the Reduced emission standard firecracker will not be allowed
7. PESO will ensure fireworks with permitted chemicals only and also ensure suspension of licenses of manufacturers who are violating.
8. Directions passed previously on 12th September 2017 shall continue to operate.
9. Public awareness campaigns shall be taken up by the Central and State Governments and Schools and Colleges informing the public.
10. Timing for bursting crackers during Diwali would be 8pm to 10pm. On Christmas and New Year eve the timing should be 11:55pm till 12:30 am.
11. Only community firecracking, pre - identified and pre designated areas shall be identified by the concerned authorities within a period of one week.

[9] Arjun Gopal vs. Union of India and Ors. (W.P. (C) No. 728/2015) Judgment dated 23rd October, 2018.

12. If there is any violation of the above directions the concerned SHOs of the areas would be held in contempt.

13. The direction with regard to time shall be applicable for all throughout the country.

14. CPCB/SPCBs/PCCs shall carry out short-term monitoring in their cities for 14days (7 days prior and 7 days after).

REFERENCES

1. Arjun Gopal vs. Union of India and Ors. (W.P. (C) No. 728/2015)

DEVELOPMENT ON NATIONAL GREEN TRIBUNAL ORDERS ON AIR POLLUTION

UNABATED STORAGE AND BURNING OF PLASTIC

Plastic Waste has been a major contributor to pollution in the world. Plastic waste in India has become an increasingly pressing problem over the years. With increasing dependence on plastic, the tendency to dispose of plastic casually has also become a part of the mainstream.

The National Green Tribunal in ***Mahavir Singh vs. Union of India (O.A. NO. 57 of 2016)***, has passed various order with respect to the unauthorised/illegal running of plastic waste segregation/recycling units in the area of Mundka, TikriKalan, Kamaruddin Nagar, Safipur, Ranhola, Bakkarwala, Nilothi and Barpola of sub-division Punjabi Bagh. The Tribunal passed judgment on 12.12.2013 but no action was taken by the authorities to control such menace.

On July 20, 2018[10], the National Green Tribunal directed action against pollution caused by burning of plastic, leather, rubber, motor engine oil and other waste materials. The Tribunal is concerned with the continuous operation of illegal industrial units dealing with such articles on agricultural land in village Mundka in Delhi.

The Principal Bench consisting of Justice Adarsh Kumar Goel, Justice Jawad Rahim, Justice Raghuvendra S. Rathore andDr. Satyawan Singh directed the Chief Secretary of Delhi to coordinate with the concerned municipal authorities, the police authorities and other responsible officers and hold meetings in this regard. They must hold the joint meeting within two weeks and at least once in a month if the orders remain not complied.

The Bench has given the window of four months' time for compliance of this order. On expiry of the period of four months, the Chief Secretary must file his own affidavit regarding the steps taken. If the Chief Secretary fails to file the affidavit, the penalty would be imposed on the persons/authorities responsible for the failure.

This pollution is being caused by illegal and unauthorized industrial activities of shredding, cleaning, recycling, burning of plastic, rubber articles or such other waste materials in the villages of Nangloi, Ghewara, Neelwal, Mundka, Kamruddin

[10]Mahavir Singh vs. Union of India (O.A. NO. 57 of 2016), order dated 20.07.2018

Nagar, Tikri-Kalan, Ranhaula etc. spread over a stretch of land along the Delhi-Haryana border.

According to NGT, all the plastic waste/scrap dealers and/or recyclers including the members of the Plastic Waste Dealers Association, responders herein shall be restrained from carrying on their business of segregation of plastic waste and its eventual transfer to recyclers or disposal contrary to and without registration under the provisions of Plastic Waste (Management and Handling) Rules, 2011. There shall be no unregulated open burning of plastic/rubber or such other articles anywhere in India. This provision has been reiterated in The Plastic Waste Management Rules, 2016.

The Compliance Report is posted for consideration on 20th December, 2018

REFERENCES

1. Mahavir Singh vs. Union of India, O.A. No. 57 of 2016

THE PERSISTING ISSUE OF STUBBLE BURNING

Crop residue burning is constantly held responsible as the major contributor to the state of the environmental crisis caused due to the alarming levels in air pollution in Delhi and NCR; and undoubtedly so. The issue of crop residue burning is essential and complex.

The National Green Tribunal has been dealing with finding solutions to the issue in the case *Vikrant Kumar Tongad Vs EPCA* since 2013 but with little progress.

The National Green Tribunal passed various orders with regard to the issue of Stubble Burning and directed the Chief Secretaries of the States of Haryana, Punjab and Rajasthan to take steps so as to control and mitigate the pollution caused.

On 26th July, Tribunal heard the matter and concluded that they reiterate their order dated 23rd July, 2018 passed in Smt. Ganga Lalwani vs. Union of India and Ors. (O.A. No. 451/2018) and they also relied on the order dated 08.11.2016 passed in ShauryaPratap Singh Parihar vs. Union of India (O.A. 95/2016), where the direction have already been passed in regard to the subject matter of the Original Application and they needed to be enforced, for which the Tribunal had directed the Secretary, Ministry of Agriculture to have a feedback from the concerned authorities as to enforcement of the directions of the Tribunal and ordered to file a status report within six weeks.

On 18th September[11], while taking into consideration the compliance report, it was submitted that awareness programmes have been undertaken in the States of Bengal, Bihar, Uttar Pradesh and NCT of Delhi. However, the targets with regard to delivery of equipment have not been achieved particularly in the States of Haryana, Punjab and Uttar Pradesh.

The Bench comprising of Chairperson Justice Adarsh Kumar Goel, Judicial Member Justice S.P. Wangadi and Expert Member Dr. Nagin Nanda, directed the States of Punjab, Uttar Pradesh, Rajasthan

[11]Smt. Ganga Lalwani vs. Union of India (O.A. No. 666/2018) order dated 18.09.2018

and Haryana to take steps to make available the requisite equipment in terms of the Central Sector Scheme, 'Promotion of Agricultural Mechanization and Machinery for In-Situ Management of crop residue' within one month i.e., latest by 20.10.2018. Further they observed that immediate action is required in view of the approaching winter as the air quality may deteriorate unless steps in terms of the order of this Tribunal as well as the schemes in question are taken without any delay.

The Tribunal directed the Ministry of Agriculture to monitor the enforcement of the direction of this Tribunal as well as provisions of the scheme on at least weekly basis. Training programme of the farmers must also be conducted simultaneously and coercive measures taken against defaulters as already directed by this Tribunal. The States are expected to frame their own action plans for implementation of the direction already issued as well as for enforcement of schemes in force. In addition to the Ministry of agriculture, the Tribunal also pulled up Chief Secretaries of the States of Punjab, Haryana, Uttar Pradesh, Rajasthan and Delhi to review the situation by calling a meeting at appropriate level and also to furnish a report to the Tribunal.

The report is for consideration on 12.11.2018.

REFERENCES

1. Smt. Ganga Lalwani vs. Union of India (O.A. No. 666/2018)
2. Vikrant Tongad vs Environment Pollution (Prevention and Control) Authority (O.A. No. 118/2013)

National Green Tribunal quashes 2016 Minor Mineral Mining Notification

In a significant order passed in the matter of Vikrant Tongad v. Union of India &Ors. (Original Application No. 520 of 2016) and several connected matters, the National Green Tribunal has quashed three Notifications issued by the Ministry of Environment Forest and Climate Change in January 2016 which had severely diluted the process of Appraisal of mining projects of minor minerals.

The Notifications were issued by the Ministry amending the EIA Notification, 2006 as it then stood and introduced a new highly diluted procedure for appraisal of projects relating to minor minerals (Bajri, Sand, morrum, brick earth etc.) including river sand mining. The Notifications constituted District Level Expert Appraisal Committee (DEAC) and District Level Environment Impact Assessment Authority (DEIAA) to appraise mining projects falling under the category of 0-5 ha.

Two categories were introduced on the basis of lease area: 0-5 ha and 5-25 ha. Such projects were exempted from submitting EIA Report and EMP, as well as public hearing.

The Green Tribunal in its order dated 13th September 2018 gave the finding that the Notification is not consistent with the decision of the Hon'ble Supreme Court in the case of Deepak Kumar (supra). While noting that requirement of EIA and Public Hearing has been exempted for 5 to 25 ha lease area, the Tribunal has observed that:

"Introduction of such procedure, in our view, is clearly not consistent with the directions contained in the case of Deepak Kumar (supra) and the spirit behind such direction."

Thus, the Tribunal has directed the Ministry to bring the procedure for appraisal of such projects in consonance with the SC directives in Deepak Kumar judgment. The following are the main directives:

- Providing EIA, EMP and public consultation for 0-25 ha category for minor minerals including cluster mining.
- Form 1M to be made more comprehensive for 0-5 ha. This category to be evaluated by the SEAC and SEIAA instead of DEAC/DEIAA
- EIA/EMP be made applicable in the process of grant of prior environmental clearance if a cluster or an individual lease size exceeds 5 ha
- EIA and/or EMP be prepared for the entire cluster in terms of recommendations under the Sustainable Sand Mining Management Guidelines, 2016
- Revise the procedure to also incorporate procedure with respect to annual rate of replenishment and timeframe for replenishment after mining closure in an area;
- Prepare guidelines for calculation of the cost of restitution of damage caused to mined-out areas along with the Net Present Value of Ecological Services for gone because of illegal or unscientific mining.

Minor Mineral Mining has a huge impact on the Air Quality of the surrounding area. As fugitive dust is made up of fine particles, when inhaled, fine particles can accumulate in the respiratory system causing various respiratory problems including persistent coughs, wheezing and physical discomfort. Breathing of these fine particles can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis.

All methods of mining affect air quality. Particulate matter is released in surface mining when overburden is stripped from the site and stored or returned to the pit. When the soil is removed, vegetation is also removed, exposing the soil to the weather, causing particulates to become airborne through wind erosion and road traffic. Particulate matter can be composed of such noxious materials as arsenic, cadmium, and lead. In general, particulates affect human health adversely by contributing to illnesses relating to the respiratory tract, such as emphysema, but they also can be ingested or absorbed into the skin.

A related impact from minor mineral mining is increased traffic congestion and safety hazards in both small rural communities and urban areas.

The WHO (1992) reports states that the growing awareness of both PM_{10} and $PM_{2.5}$ is largely associated with the potential damaging effects they can have on the human body. The World Health Organization (WHO) states that particles are affecting more people worldwide than any other pollutant. Primary Health effects include damage to the respiratory and cardiovascular systems. Due to the small size of PM_{10} and $PM_{2.5}$ particles, they can penetrate the deepest part of the lungs as well as access the gas exchange regions of the lung via diffusion.

The National Green Tribunal has considered the major facets of Environmental Impact Assessment into consideration, by making it necessary to have Environment Management Plan and Public Hearing even for the 0 -25ha category minor mineral including cluster mining as being an integral part of the EIA. This will have major contribution to keep a check over the mitigation measure to abate environmental pollution.

REFERENCES

1. Vikrant Tongad v. Union of India &Ors. (Original Application No. 520 of 2016)

National Green Tribunal pulls up CPCB for ineffective implementation of the Air Pollution Action Plan

The National Green Tribunal on 8th October, 2018[12] took Suo Moto action against the ineffective implementation of the National Clean Air Programme.

The Bench headed by Chairperson Justice Adarsh Kumar Goel, Justice Jawad Rahim, Justice S.P. Wangdi and Expert Member Dr. Nagin Nanda scrutinized the issue of the National Clean Air Programme based authored by Mr. Vishwa Mohan titled as "NCAP with multiple timelines to clean air in 102 cities to be released around August 15".

[12] News Item Published In 'The Times of India' Authored by Shri. Vishwa Mohan Titled "NCAP with Multiple Timelines to Clear Air in 102 Cities to be released around August 15" (O.A. No. 681 of 2018) order dated 08.10.2018

The National Clean Air Programme has identified 102 cities as "Non – attainment cities", which means that the cities do not conform with the National Ambient Air Quality Standards (NAAQS), which were prescribed under Section 16 (2) (h) of the Air (Prevention and Control of Pollution) Act, 1981 vide notification dated 18.09.2009, by the Central Pollution Control Board.

A comprehensive action plan for air pollution control for NCR was prepared in pursuance of the order of the Supreme Court dated 06.02.2017 by the Environment Pollution (Prevention and Control) Authority (EPCA) in consultation with the CPCB and the DPCC on 05.04.2017. The said plan provided for the Graded Response Action Plan (GRAP) notified by the Ministry of Environment, Forest and Climate Change on 12.01.2017. The GRAP envisages categories of pollution as severe plus, severe, very poor, moderate to poor and there are steps provided for each situation. The implementation of prescribed norms in the light of the legal provisions and court decision remain a challenge.

Though the Ministry of Environment, Forest and Climate Change has announced NCAP, the timeline to bring down pollution by 70%-80% in next 10 years does not meet the mandate of the law.

The National Green Tribunal passed the following directions starting with all the States and Union Territories with non – attainment cities must prepare appropriate action plans within two months and aim to bring the standards of

air quality within the prescribed norms within six months from the date of finalisation of the action plans.

The Action Plans may be prepared by six member committee comprising of the Director of Environment, Transport, Industries, Urban Development, Agriculture and Member Secretary, State Pollution Control Board or the Committee of the concerned State, the Committee may be called the Air Quality Monitoring Committee (AQMC).

The AQMC will function under the overall supervision and coordination of the Principal Secretary, Environment of the concerned States/ Union Territories, which could be further supervised by the Chief Secretaries concerned or their counterparts in Union Territories by ensuring intra – sectoral co - ordination.

The Action Plans will consider the GRAP, the CAP and the action plan prepared by the Central Pollution Control Board. These Action Plans have to be submitted to by Central Pollution Control by December, 2018. The Action Plans should be consistent with the carrying capacity assessment of the non – attainment cities and the carrying capacity shall also lay emphasis on the agricultural and indoor pollution in rural areas.

The Committee comprising of Shri. Prashant Gargava, Member Secretary, CPCB Dr. Mukesh Khare, Professor, IIT Delhi Dr. Mukesh Sharma, Professor, IIT Kanpur shall examine the action plans and on the recommendation of the Committee, the Central Pollution Control Board shall approve the same by January, 2019.

The Bench also directed that the Chief Secretaries of the State and Administrators/Advisors to the Administrators of the State and Union Territories will be personally accountable for the failure of to formulate Action Plans, as directed.

The Central Pollution Control Board, State Pollution Control Boards and the Pollution Control Committees shall collectively workout and design a robust nationwide ambient air quality monitoring programme by strengthening the existing monitoring network with respect to coverage of more cities and town. The Central Pollution Control Board and the States shall file a composite action plan with timelines for its execution which shall not be more than three months. Ministry of Environment, Forest and Climate Change shall provide requisite funds for the purpose and also Ministry in consultation with the Ministry of Housing and Urban Affair, Ministry of Road, Transport and Highways, Ministry of Petroleum and Natural Gas, Ministry of Agriculture, Cooperation and Framers Welfare or any other Ministry to lay down guidelines as may be necessary for improvement of air quality in the country.

The matter will be considered for the reports that are to be furnished in the last week of February, 2019.

REFERENCES

1. News Item Published In ‘The Times of India’ Authored by Shri. Vishwa Mohan Titled “NCAP with Multiple Timelines to Clear Air in 102 Cities to be released around August 15” (O.A. No. 681 of 2018)

National Green Tribunal directs to install vapour recovery systems in petrol pumps to keep a check on VOC Emission

The National Green Tribunal, Principal Bench, on 1st November 2018, dismissed the applications[13] filed by three main oil marketing companies of the Country (OMC's -IOCL, BPCL, HPCL) seeking extension of time ranging from three months to three years for implementing the order dated 28.09.2018 of the Tribunal directing them to install Stage I and Stage II Vapour Recovery Systems (VRS) in all fuel retail outlets and storage facilities in the National Capital by 31.12.2018. It further expanded the scope of the order for implementation to the entire NCR region, setting the deadline to 01.02.2019.

The National Green Tribunal had in April 2016 issued notice on a Petition seeking installation of the Vapour Recovery Systems at fuel transference centres, loading stations and retail outlets, in order to trap the release of Volatile Organic Compounds (BTX- Benze Toulene and Xylene) during transfer of petroleum products.

The NGT had on 28.09.2018, accepted the Petition and directed that the work of installation of Stage I and II VRS should be completed by 31.10.2018 for retail outlets selling more than 300KL per day and 31.12.2018 for outlets selling less than 300 KL per day.

In a show of concern and steadfastness, the NGT bench comprising of Justice Adarsh Goel, Justice S.P. Wangdi and Expert Member Dr Nagin Nanda, replying to the statement of the senior counsel appearing for the OMC's that petrol pumps will run dry if the order of the tribunal is to be followed with the given timeline, said that "people are dying, we are human beings too, we cannot watch people die because of this pollution". The counsel then stated that this pollution is because of Haryana and Punjab, said: "no, what you are releasing is far more harmful, you have had two years to comply with the CPCB directions" (in this regard). The bench also stated that "let the fuel pumps run dry; we would be healthier if we rode bicycles". "We could have given you extension of a few days or a week but not for years and that extension would have been on a cost per day".

The Court also expanded the scope of installation of Vapour Recovery System to the entire NCR region setting the deadline for installation to 01.02.2019.

REFERENCES

1. Aditya N. Prasad vs. Union of India and Ors. (Original Application No. 147 of 2016)

[13] Aditya N. Prasad and Anr. Vs. Union of India, Original Application No. 147 of 2016, order dated 01.11.2018

BRICK KILN NOTIFICATION

The Ministry of Environment, Forest and Climate Change (MoEF&CC) released the Draft Notification for Brick Kilns on 15th March, 2018, vide Notification No. G.S.R. 233 (E), standardising the emission of particulate matter for Bull's Trench Kilns, Induced/High Draft Kiln, Hoffmann Kilns, Tunnel, down draft Kilns, Vertical Shaft Kilns (VSK) and ZigZag to 250 mg/N cubic metre, and set the minimum stack height for Natural draft kilns and Induced/High Draft Kilns. However, the proposed standards fall short on various grounds and have a number of gaps.

The brick kiln sector is one of the most polluting sectors, especially in terms of air pollution in the country. India is the second-largest producer of bricks in the world, after China, and hence the pollution caused by the brick kiln sector is substantial[14]. According to a study conducted in Budgam district in Jammu and Kashmir, the monitoring of stack emissions on an 8 hourly basis showed that all the pollutants SO_x, NO_x, and suspended particulate matter were crossing the limits prescribed by National Ambient Air Quality Standards (NAAQS) during the operational phase of brick kilns[15]. Another pollutant released from brick kilns which is a major cause for concern is Hydrogen fluoride gas[16].

PM limit of 250 mg/Nm^3 is relaxed

The draft standard of particulate matter for all types of brick kilns at 250 mg/Nm^3 is very relaxed as limit of 250 mg/Nm^{3}can easily be met without much effort, once the kilns are converted to zigzag or vertical shaft technology. According to a study[17], PM emissions from zigzag technology based brick kilns can be limited too much below 250 mg/Nm^3.Thus, the stricter standards of PM must be set for the newer brick kilns which would function on more environment-friendly technology.

Further, it can be seen that the emission of PM from Hybrid Hoffmann Kiln (HHK) and Tunnel kiln are much lower, as the standards proposed for PM levels from these 2 types of brick kilns in the Draft, has been kept at 200 mg/Nm^3 and 100 mg/Nm^3, respectively in Nepal[18]. Hence, instead of only focussing on zigzag and VSBKs, the conversion of the existing brick kilns into these 2 types of newer technology brick kilns must also be explored and the standards for PM must be accordingly revised to make it stricter.

The proposed standards in the Draft Notification clearly states that the conversion of the existing brick kilns to only zigzag and vertical shaft (VSBK) technology-based brick kilns would be allowed and promoted. While zigzag and VSBK are certainly most feasible for the

[14] https://www.researchgate.net/publication/279916664_Brick_kilns_Cause_of_Atmospheric_Pollution

[15] https://www.omicsonline.org/open-access/brick-kilns-cause-of-atmospheric-pollution-2375-4397.1000112.php?aid=29753

[16] https://www.protea.ltd.uk/hf-emissions-from-brickworks.html

[17] http://www.icontrolpollution.com/articles/treacherous-impacts-of-hydrogen-fluoride-around-brick-kilns-a-review-.php?aid=65278

[18] http://doenv.gov.np/files/download/Report%20Brick%20Kiln%20%20Emission.pdf

small brick investors in the country, for the comparatively bigger investors other cleaner brick making technologies like Hybrid Hoffman Brick Kilns (HHK) and Tunnel Kilns needs to be explored and promoted too[19]. The success of HHK can be seen from its establishment in Bangladesh, as suggested by a World Bank report. Thus, the proposed standards should not be limited to just zigzag and VSBK, but conversion to HHK and tunnel kilns must also be mentioned in the Standards.

A conversation with an industry expert Dr. Sameer Maithel from Greentech Knowledge Solutions Pvt. Ltd. (GKSPL) revealed that typically construction of a kiln requires 2 months of time and the construction should be done by a trained mason. Considering that around 50,000 FCBTKs exist in the country, simple mathematics shows that around 5000 trained masons will be required to undertake the task of converting all the kilns within one year (non-attainment cities) and two years for other areas.

It must be mentioned here that the masons need to be highly skilled and trained accordingly in order to carry out the conversion efficiently. Thus, to ensure timely and effective conversion (which results in kilns with lower air pollution); the notification should direct the State Governments/ State Skill Development Missions/ SPCBs to conduct training of masons.

[19]https://www.tandfonline.com/doi/abs/10.1080/19443994.2015.1012335

Need for Siting Criteria Guidelines

Fertile topsoil has a significant amount of loam and clay and is hence considered to be the best raw material for bricks[20]. The removal of the fertile topsoil for brick-making ensures that the agricultural land in the vicinity of the brick kilns and from where the topsoil is extracted, are rendered completely useless to meet the needs of the brick kilns. In a study conducted to assess the effect of brick kilns in the vicinity of 17 villages, it was revealed that most of the brick kilns were located in the middle of the villages' paddy fields and only about 34% (121 out of 355 villagers) of the total population of the villages were directly employed in the brick kilns. The farmers located in the vicinity of the brick kilns blamed the kilns for loss of productivity in their once fertile lands.

The process involved in the brick kilns is such that if appropriate measures are not taken, it may lead to pollute air and besides impact on land, soil, flora and fauna, hence it has been categorized as 'RED' category industry by the Central Pollution Control Board. It is, therefore, mandatory that brick kiln units must adopt appropriate measures to prevent/control discharge of pollutants in the air and must also have adequate arrangement to control the particulate matter in the premises of the unit itself. Any project proponent intending to establish a brick kiln unit must seek prior consent to establish under the Air (Prevention and Control of Pollution) Act,

[20]http://shodhganga.inflibnet.ac.in/bitstream/10603/152177/4/13.%20chapter-5.pdf

1981 before taking any step for establishing the industry.Likewise, after establishing the brick kiln, the project proponent must seek prior consent to operate before commissioning the plant. . It must be mentioned here that apart from a few States like Uttar Pradesh, Bihar etc. have siting criteria guideline for the setting up of brick kilns. The proposed Standards must include the need for formulation of a proper National document for siting criteria of brick kilns in the final Notification. Such a document would also ensure that eco-sensitivity of an area is considered before a brick kiln is established.

HOT MIX PLANT NOTIFICATION

Central Pollution Control Board (CPCB) came up with a draft on environmental standards and guidelines[21] for hot mix plants on 9th June, 2018 inviting comments from public.

Hot mix plants are mainly used for mixing of stone aggregates with liquid asphalt/bitumen[22] for construction of roads. A hot mix plant usually comprises of aggregate bins, feeder, weighing system, drying drum, bitumen and fuel storage tanks, air pollution control devices, hot mix storage silo and loading facilities. These plants are installed near construction site and highways, and operate for such time till the construction work continues. 15 hot mix plants with different type and size were selected to carry out emission monitoring, out of which 9 were batch mix plants and remaining 6 were drum type hot mix plants.

Standards are Relaxed

PM standard for batch mix plant has been set at 150mg/Nm^3. It is important to mention here that, the standard is quite relaxed in nature and there is no justification of reaching to this figure of 150mg/Nm^3 because as per the emission inventorisation data listed by CPCB for 9 such plants, there are batch mix plants with PM emission level as lower as 99mg/Nm^3, 102 mg/Nm^3, 112 mg/Nm^3 and so on. Therefore, with installation of Air Pollution Control Devices, the plants can easily meet emission level lower than 150 mg/Nm^3.

Similar argument can go with the drum type hot mix plants, where the PM standard has been set at 300 mg/Nm^3. Setting such high limit for drum type hot mix plants will nothing but create pollution hot spot across any city, engaged in frequent construction activities. Even though the batch hot mix plants are less polluting, given the small and medium scale units of drum type hot mix plants, probability of using the later one will be more. Therefore, instead of allowing both the batch type and drum type hot mix plants, there should be a complete ban on any new drum type hot mix plants.

Even though the batch hot mix plants are less polluting SO_2 emission as can be seen from the emission inventorisation

[21] http://cpcb.nic.in/openpdffile.php?id=TmV3c0ZpbGVzLzY2XzE1MjgyNzE3NTRfbWVkaWFwaG90bzE4OTc2LnBkZg==

[22] Liquid asphalt/Bitumen – a product of crude oil distillation

experiment of CPCB for both type of hot mix plants are again ranged between 116 - 257 mg/Nm^3, whereas the standard has been set at 250 mg/Nm^3.

Same can be seen in case of NOx values. The standard for NOx has been set at 200 mg/Nm^3, whereas the monitored value for NOx showed as lower as 79mg/Nm^3, 83 mg/Nm^3, 108 mg/Nm^3, 118 mg/Nm^3, 119 mg/Nm^3 and likewise.

CPCB has not come out with any standard for CO, CO_2 and VOC in spite of their acknowledgement of emission of these gaseous pollutants from burning of fuel for preparation of bitumen mix.

Process Related Emissions & its Mitigation are missing in the Draft

While formulating the emission standard, CPCB did not consider the various process related sources of emission. According to a study done by United States Environment Protection Agency (US EPA) in December 2000, titled "*Hot Mix Asphalt Plants-Emission Assessment Reports*"[23], emission of PM, VOC, CO, SO_2, NOx, and various Hazardous Air Pollutants (HAPs) are attributed to mobile sources like diesel exhaust, material handling and road dust, fuel oil fired dryer, hot screens and mixed, load out, asphalt storage and yard. However, the CPCB Draft is only based on stack emission monitoring and no other process related emission. Neither had the Draft mention any standard for any Hazardous Air Pollutants (HAPs), which are likely to generate from the various processes of a hot mix plant.

[23]https://www3.epa.gov/ttn/chief/ap42/ch11/related/ea-report.pdf

Siting Guideline is against Law

Not only the standard, siting guidelines also lack enough justification, as to how only 1-2m of distance from schools, hospitals, sports centre or approved habitation area can ensure less exposure to the pollutants? Sensitive areas, monuments and bird sanctuaries got a minimum distance limit of 2-5m depending on the available green belt.

In the matter of ***M.C. Mehta v. Union of India*** **[(1997) 1 Scale (SP) 31]**, Supreme Court on 10-10-1996 directed all the hot mix plants to be shifted to areas outside the vicinity of Delhi.

The order further stated the place where the hot mix plants shall be installed for a period of one year only, shall be at least 2 kilometres away from the residential areas and populace, and shall not cause any pollution or environmental hazards. This simply justify the fact that considering the probability of pollution exposure to human habitation, such order has been passed.

NGT Southern bench in the matter of ***Kumbeswaran vs. TNPCB*** **(OA 10/2016)** ordered that, no hot mix plant shall be set up within 500mof an approved habitation/approved layout. The court further observed that the hot mix plants shall be situated outside the radius of 500m and at any point it won't be less than 500mtrs.

CPCB in the proposed Draft has intended to ensure abatement and control of pollution, through formulation of the environmental standards and guidelines.

However, the same intention of CPCB is highly questionable given the relaxed nature of standard and siting guideline proposed by them. This will not only give leverage to the highly polluting units, but will discourage others (who were made it to the lower level of emission than the proposed standard) from adopting devices like bag filters, or dual cyclones which reduce pollutants level from stack emissions. This simply shows lack of application of mind on the part of regulatory Authority while formulating standard.

REFERENCES

1. M.C. Mehta v. Union of India [(1997) 1 Scale (SP) 31]
2. Kumbeswaran vs. TNPCB (OA 10/2016)

Legal Initiative for Forest and Environment

N-71, Lower Ground Floor,

Greater Kailash – I,

New Delhi – 110 048