

Regional office
UP Pollution Control Board
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Ref.No. 136 / L-122 / 2021

Date: 22/06/2021

To,

The Registrar,
The National Green Tribunal,
Principal Bench,
New Delhi
E-mail- judicial-ngt@gov.in

Sub: Compliance report in compliance to order passed by Hon'ble NGT, New Delhi on dated 24.02.2021 in matter of OA No. 19/2021 (Earlier O.A. No 618/2016) Sanjay Kumar (Applicant) Versus State of Uttar Pradesh & Ors. Respondent(s).

Sir,

With reference to the subject mentioned above, this is to inform you that in compliance to the order passed by Hon'ble NGT, New Delhi on dated 24.02.2021 in the matter of OA No. 19/2021 (Earlier O.A. No 618/2016) Sanjay Kumar Versus State of Uttar Pradesh & Ors., the compliance report is submitted for your kind perusal and necessary action please.

Yours Sincerely



(Praveen Kumar)
Regional Officer

Copy for information and necessary action to-

1. Member Secretary, Central Pollution Control Board, New Delhi.
2. Member Secretary, U.P. Pollution Control Board, Lucknow .
3. Shri Pradeep Misra, Advocate, Hon'ble Supreme Court/ NGT, New Delhi.
4. Chief Environmental Officer, Circle-I, U.P. Pollution Control Board, Lucknow.
5. Chief Law Officer, U.P. Pollution Control Board, Lucknow.



Regional Officer

Report of a Joint Committee constituted in compliance of the order of Hon'ble NGT dated 24.02.2021, in the matter of O.A. No. 19 of 2021, Sanjay Kumar Vs State of UP & Ors.

1.0 BACKGROUND

The Hon'ble National Green Tribunal, Principal Bench, New Delhi, vide its order dated 24.02.2021 in the matter of O.A. No. 19 of 2021, Sanjay Kumar Vs State of UP & Ors., directed as follow:

"...We have considered the above report which has not addressed the issue of carrying capacity of the area to sustain activities like hot mix plants and the siting criteria, including the inter-se distance followed so as not to violate the right of the citizens in the area to breathe fresh air. This observation is in the context of air quality in NCR which led to restrict activities with pollution potential. In this regard reference is made to the order dated 17.02.2021 in O.A. No. 1016/2019, Utkarsh Panwar v. Central Pollution Control Board & Ors., requiring regulation of brick kilns in the NCR in the light of the carrying capacity, till they are fired by coal generating air pollution. Question of use of cleaner fuel may require consideration in the context of hot mix plants also.

Let a joint Committee of the CPCB and the State PCB look into the above aspects to determine whether and to what extent and subject to what safeguards hot mix plants can be sustained following the "Sustainable Development" and "Precautionary" principles, in the interest of public health. The State PCB will be nodal agency for coordination and compliance..."(Annexure-I)

2.0 COMPLIANCE REPORT

2.1 Constitution of the Joint Committee

In compliance of the order of the Hon'ble NGT, a Joint Committee comprising of the following member was constituted:

1. Shri Satya Vijay, Assistant Environmental Engineer, UPPCB, Noida
2. Shri Vinay Prabhakar, Scientist 'B', CPCB, Delhi

The meeting of the joint Committee was held on 04.06.2021 and was followed by a site visit on the same day.

2.2 Terms of Reference (TOR) of the Joint Committee

As per orders of Hon'ble NGT, the Joint Committee was required to look into the following aspects and give report:

- i. Assessment of Carrying Capacity of the area to sustain activities like hot mix plants and to determine whether and to what extent and subject to what safeguards hot

mix plants can be sustained following the "Sustainable Development" and "Precautionary" principles, in the interest of public health

- ii. Siting criteria including inter-se distance
- iii. Consideration of use of cleaner fuel in the context of hot mix plants

2.3 Report of the Joint Committee

During the first meeting of the Joint committee, the responsibility matrix was discussed and finalized, so as to comply with the directions of the Hon'ble NGT in a time bound manner. Subsequent to the first meeting and site visit of the Joint Committee, various teams with specific tasks visited the site, under the supervision of the Joint Committee.

The Joint Committee deliberated on the various issues based on the outcome of the monitoring conducted and observations made during various site visits. The report of the Joint Committee on the various points is submitted as follows:

2.3.1 Observations made by the Joint Committee during site visits

The following are the main observations made by the Joint Committee during site visit:

- i. Out of 8 hot mix plants visited by the Joint Committee on 04.06.2021, it was observed that 7 hot mix plants were not in operation at the time of visit. It was informed by the units that these plants are not in operation from a long time due to implementation of Graded Response Action Plan (GRAP) and afterwards second wave of COVID-19 as a result no work order. The operational status & other details of hot mix plants visited on 04.06.2021 are as under:

S.No.	Name and address of plant	Geographical location	Operational status	Product & its capacity	Type of Fuel	Consent status
1.	M/s Saroj Construction Co. Village-Nagli Wazidpur, Sector-135, Noida	28°29'36" N, 77°23'31" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60 to 90 MT/Hr	Diesel	Matter under consideration in Hon'ble NGT, O.A. 618/2016, I.A. No. 399/2019
2.	M/s Maa Bhagwati Construction Co. Village-Wazidpur, Yamuna Pusta, Noida	28°29'24" N, 77°23'19" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 45 MT/Hr	HSD	Valid upto 31.03.2022

S.No.	Name and address of plant	Geographical location	Operational status	Product & its capacity	Type of Fuel	Consent status
3.	M/s JRD Infratech Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	28°29'17" N, 77°23'22" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60 MT/Hr	Diesel	Valid upto 31.03.2025
4.	M/s PMH Roadtech Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	28°29'20" N, 77°23'16" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60 MT/Hr	Diesel	Valid upto 31.03.2025
5.	M/s S.R. Construction Village-Nagli Wazidpur, Sector-135, Noida	28°29'12" N, 77°23'21" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60-80 MT/Hr	Diesel	Matter under consideration in Hon'ble NGT, O.A. 618/2016, I.A. No. 19/2019
6.	M/s Balaji Construction Village-Wazidpur, Sector-135, Noida	28°29'13" N, 77°23'15" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60 MT/Hr	HSD	Valid upto 31.03.2024
7.	M/s MYC Infra Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	28°29'14" N, 77°23'39" E	Non-operational	Dense Bituminous macadam/Dense bituminous concrete- 60 MT/Hr	Diesel	Valid upto 31.03.2025
8.	M/s Yash Technobuild Pvt Ltd, Village-Wazidpur, Noida	28°29'23" N, 77°23'43" E	Operational	Dense Bituminous macadam/Dense bituminous concrete- 60 MT/Hr	Diesel	Valid upto 31.03.2026

- ii. The Air Pollution Control system "Bag house filter Unit" and chimney of height about 45 ft, from ground level is attached with all the Hot Mix Plants to control the air pollution. All hot mix plants have installed proper monitoring arrangement and water sprinkling arrangement within premises.

2.3.2 Estimation of the Carrying Capacity of the Ambient Air Environment of hot mix cluster area village Wazidpur, Noida

It was directed by Hon'ble NGT to undertake a joint study to estimate the carrying capacity of ambient air environment in the hot mix cluster area village Wazidpur, Noida. It was informed by UPPCB that nearest Continuous Ambient Air Quality Monitoring Station situated around 9 K.M. from hot mix cluster but the data can't be used for carrying capacity as the location is far away. UPPCB Teams carried out ambient air quality monitoring for two days (08/06/2021 to 09/06/2021 and 19/06/2021 to 20/06/2021) during operation of Hot Mix Plants at Hot Mix Plant Cluster and village- Wazidpur. UPPCB Teams also monitored at aforesaid station for a day (10/06/2021 to 11/06/2021) when Hot Mix Plants are not in operation. The consolidated monitoring results are given below:

Station Name	Date of Monitoring	PM ₁₀	SO ₂	NO ₂
Village Wazidpur hot mix plants Cluster	08/06/2021	404	22	33
	10/06/2021	218	12	24
	19/06/2021	202	10	21
Village Wazidpur, Sector135, Noida i.e. farm house of Saroj Construction Co.	08/06/2021	336	13	23
	10/06/2021	192	9	22
	19/06/2021	156	7	17

Based on the available background concentration of data of air quality, the following approach was followed for estimating the carrying capacity of ambient air environment in the study area of hot mix cluster area village Wazidpur, Noida and applying box model:

- It is assumed that the impact of Hot mix Plants in Village- Wazidpur, Noida is restricted to a square of side 1.5 Km then the study area is taken as 2.25 Km².
- The carrying capacity is estimated on the day when Hot mix Plants are operational along with other air polluting activities and on the day when Hot mix Plants are non-operational.
- The atmospheric mixing height in the study area varies between 553 to 670 meters on day of Hot mix Plants operating while 730 meters on the day of non-operation of Hot mix Plants. The 90 percentile value which is majorly dominant during the study period is taken and accordingly this value was used to calculate the volume of the ambient air in the study area, as a product of atmospheric mixing height and the study area under reference.



- d. The concentration of PM₁₀ in ambient air was found to be varying between 156 to 404 µg/m³ in study area on the day of operation of Hot mix Plants, while, the day of non-operation of Hot mix Plants in study area, the concentration of PM₁₀ varies between 192 to 218 µg/m³. The 90 percentile value which is majorly dominant during the study period is taken and this value was used to calculate the total load of PM₁₀ load in the study area, as a product of predominant PM₁₀ particulate matter concentration and volume of the ambient air upto mixing height, in the study area.
- e. The national ambient air quality standard (NAAQS) for PM₁₀ i.e. 100 µg/m³ and when multiplied by the volume of air in the study area, it provided the average assimilative capacity of the study area for the study period.
- f. Supportive carrying capacity of the study area was computed by taking the difference of assimilative carrying capacity of the area & total estimated load of PM₁₀ in the study area.

The carrying capacity assessment of ambient air environment, of study area as estimated by the Joint Committee based on the available data of ambient air quality monitored in the study area for the predominant air quality parameter i.e. PM₁₀ on day of operation of Hot Mix Plants, is as follows:

Particulars	Village- Wazidpur, Noida
Study Area (km ²)	2.25
Mixing height (km)	0.550
Volume of air in the study area (km ³)	1.24
PM ₁₀ (µg/m ³)	247
Total Estimated load of particulate matter in ambient air in the study area in a study period (kg)	306
Assimilative Carrying Capacity (kg)	124
Supportive Carrying Capacity (kg)	-182

The carrying capacity assessment of ambient air environment on day of non-operation of Hot mix Plants in study area, is as follows:

Particulars	Village- Wazidpur, Noida
Study Area (km ²)	2.25
Mixing height (km)	0.657
Volume of air in the study area (km ³)	1.48
PM ₁₀ (µg/m ³)	185
Total Estimated load of particulate matter in ambient air in the study area in a study period (kg)	274
Assimilative Carrying Capacity (kg)	148
Supportive Carrying Capacity (kg)	-126

 *Vinay*

It may be concluded from the above table, as such there is no supportive capacity available in the ambient air environment with reference to PM₁₀, in the study area irrespective of operation of hot mix plants. There is about 30% reduction in supportive carrying capacity when hot mix plants are not in operation. It may require source apportionment study considering the different polluting activities in the study area to assess the contribution of individual activities to propose production limits as one of the preventive measures, so as to keep the ambient air environment within assimilative capacity.

2.3.5 Source Emission Monitoring

A UPPCB team visited the site on 08/06/2021, 09/06/2021 and 19/06/2021 for source emission monitoring of one, three and one hot mix plant which were found operational on aforesaid dates, respectively. Source emission monitoring and the results are summarized below:

S. No.	Name & Address of the hot mix plants	Date of monitoring	Stack Height (in m)	Cross Sectional Area of Stack (in m ²)	Average velocity (in m/s)	Average flow (in m ³ /s)	Concentration of pollutants (in mg/Nm ³)	Pollution load (in kg/day)
1.	M/s Yash Technobuild Pvt Ltd, Village-Wazidpur, Yamuna Pusta, Noida	08/06/2021	14 (approx)	0.07	5.58	0.39	PM- 127 SO ₂ - 144 NO ₂ - 91	PM- 4.28 SO ₂ - 4.85 NO ₂ - 3.07
2.	M/s JRD Infratech Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	09/06/2021	14 (approx)	0.07	15.38	1.08	PM- 144 SO ₂ - 170 NO ₂ - 111	PM- 13.44 SO ₂ - 15.86 NO ₂ - 10.36
3.	M/s PMH Roadtech Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	09/06/2021	14 (approx)	0.07	9.44	0.66	PM- 141 SO ₂ - 181 NO ₂ - 107	PM- 8.04 SO ₂ - 10.32 NO ₂ - 6.10
4.	M/s MYC Infra Pvt Ltd, Village-Nagli Wazidpur, Sector-135, Noida	09/06/2021	14 (approx)	0.07	4.16	0.29	PM- 143 SO ₂ - 162 NO ₂ - 92	PM- 3.58 SO ₂ - 4.06 NO ₂ - 2.30

S. No.	Name & Address of the hot mix plants	Date of monitoring	Stack Height (in m)	Cross Sectional Area of Stack (in m ²)	Average velocity (in m/s)	Average flow (in m ³ /s)	Concentration of pollutants (in mg/Nm ³)	Pollution load (in kg/day)
5.	M/s Balaji Construction Village- Wazidpur, Sector-135, Noida	19/06/2021	11 (approx)	0.28	3.86	1.08	PM- 173 SO ₂ - 181 NO ₂ - 113	PM- 16.14 SO ₂ - 16.89 NO ₂ - 10.54

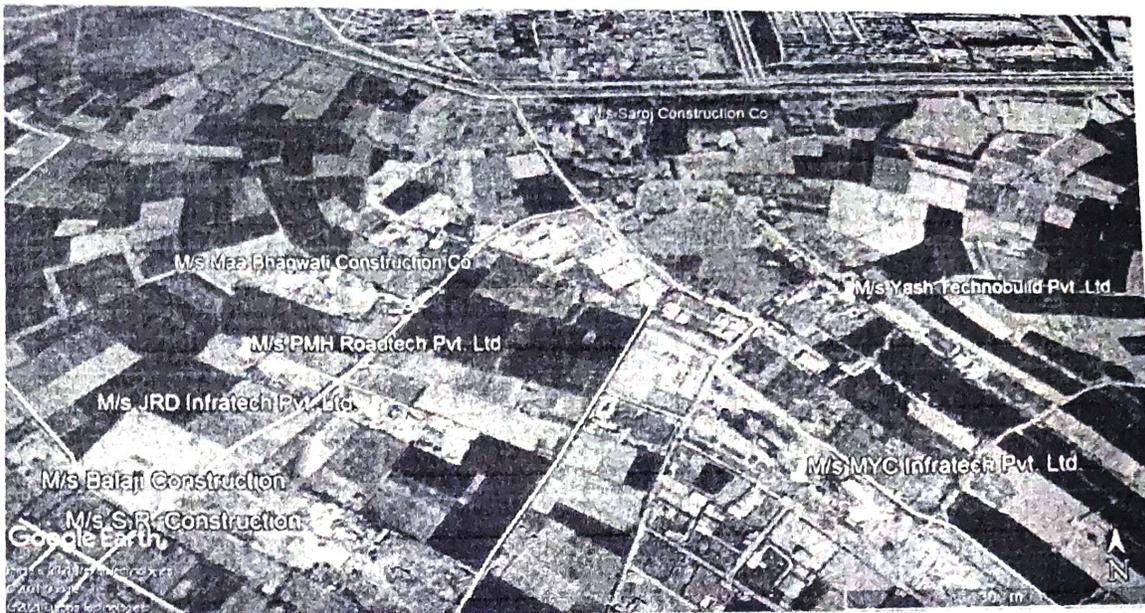
An evaluation of the source emission monitoring of 05 hot mix plants indicated that individual hot mix plant are having PM, SO₂ and NO₂ concentration in between 127 to 173, 144 to 181 and 91 to 113 mg/m³, respectively. The average pollution load calculated in the study area with respect to PM, SO₂ and NO₂ are 9.10, 10.40 and 6.47 Kg/day, respectively.

2.3.6 DETAILS OF SITING OF HOT MIX PLANT CLUSTER:

A site visit by the joint committee on 04/06/2021 and following are observed with respect to siting of hot mix plants:

- i. All these 08 hot mix plants situated in the form of a cluster at Village Wazidpur, Sector-135, Noida and out of which 06 number of hot mix plants were reopened/operate after joint inspection and recommendation of New Okhla Industrial Development Authority Noida, UPPCB etc. in compliance of the orders passed by Hon'ble NGT New Delhi. Rest 02 hot mix plants (M/s Saroj Construction Co. Village-Nagli Wazidpur, Sector-135, Noida and M/s S.R. Construction Village-Nagli Wazidpur, Sector-135, Noida) which are closed are under consideration in Hon'ble NGT New Delhi in, O.A. 618/2016 as I.A. No. 399/2019 and I.A. No. 19/2019 respectively.
- ii. Hot mix plant is situated at a minimum distance of
 - a. 140 meters (approx.) from residential dwelling (Sector-130, Noida)
 - b. 1.9 KMs (approx.) from Yamuna river
 - c. 1.3 KMs (approx.) from Noida Greater Noida expressway
 - d. 2.1 KMs (approx.) from Felix hospital, Sector-137, Noida
- iii. The inter-se distance between two hot mix plants were found minimum 150 meters (approx.)

A map showing location of all 8 hot mix plants are given below:



3.0 RECOMMENDATIONS:

It is to mention that this cluster of hot mix plants is the only cluster supplying raw material for pot-hole free roads, re-surfacing of roads, black topping of earthen roads to the concerned govt. agencies involved in maintenance & development of the rural/urban infrastructure in Noida & Greater Noida. Total 06 hot mix plants are in operation under direction of Hon'ble NGT, New Delhi in the said matter and are under regular monitoring of SPCB.

- i. Since, the carrying capacity of the study area is estimated to be negative and therefore, following actions are suggested to support & protect the air environment:
 - a. No new hot mix plant may be allowed to establish & operate in the area including any expansion of the existing units.
 - b. The supporting infrastructure such as road needs to be improved, development of green belts and provision of water sprinkling in in the hot mix plants in order to control the fugitive dust emission.
- ii. Siting criteria will be applicable for new establishment. Existing establishments should take appropriate environmental friendly practices. In future Hot mix plants shall be setup as per siting policy/guidelines. However, they may follow criteria as below:

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- a. It should be located in area wherever permissible and atleast 100 meters away from residential dwellings, health centres/hospitals & schools,
 - b. Atleast 200 meters away from water spread area of major watercourses like Lake, canal and major drinking water sources,
 - c. Away from flood plain area of River and areas having shallow groundwater
 - d. Atleast 50 meters of inter-se distance between two establishments (each establishment should provide 25 meters from each side) should be provided and developed green belt.
 - e. Carrying capacity of the area may be considered while allowing new hot mix plant.
- iii. At present these plants are using diesel as a fuel, recommended installation of additional Alkali scrubber to minimize of SO₂ and NO₂ emission.


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22/06/2021
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