



राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्र
वायु गुणवत्ता प्रबंधन आयोग
Commission for Air Quality Management in
National Capital Region and
Adjoining Areas



F.No.-120015/25/TPP/CAQM/(UPRVUNL) - 1594DT

Dated: 01.04.2026

To,

1. Harduaganj Thermal Power Station
Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited
Through Shri Mayur Maheshwari, IAS
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2. Harduaganj Thermal Power Station
Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited
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DIRECTION FOR IMPOSITION OF ENVIRONMENTAL COMPENSATION UNDER RULE – 3 OF THE ENVIRONMENT (UTILISATION OF CROP RESIDUE BY THERMAL POWER PLANTS) RULES, 2023, READ WITH SECTION 12 OF THE COMMISSION FOR AIR QUALITY MANAGEMENT IN NATIONAL CAPITAL REGION AND THE ADJOINING AREAS ACT, 2021, FOR NON-COMPLIANCE OR CONTRAVENTION OF THE PROVISIONS OF THE AFORESAID RULES WITH RESPECT TO MANDATORY USE OF A MINIMUM FIVE PERCENT BLEND OF PELLETS OR BRIQUETTES MADE OF CROP RESIDUE ALONG WITH COAL

WHEREAS, Ministry of Environment, Forest and Climate Change (MoEF&CC) has notified Environment (Utilisation of Crop residue by Thermal Power Plants) Rules, 2023 read with Corrigendum GSR 522(E), dated 18.07.2023 (hereinafter referred to as the

“Rules, 2023”) which are applicable to National Capital Region and the Adjoining Areas as defined respectively in clauses (f) and (a) of sub-section (1) of section 2 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021(hereinafter referred to as the “CAQM Act”);

WHEREAS, Rule 2 of the Rules, 2023 mandates coal based thermal power plants of power generation to utilise a minimum five per cent (min. 5%) blend of pellets or briquettes made of crop residue along with coal;

WHEREAS, the Rule 3 of the Rules, 2023 also empowers the Commission for Air Quality Management in National Capital Region and Adjoining Areas (hereinafter referred to as the “Commission”) or its authorized officer to impose and collect the Environmental Compensation (hereinafter referred to as the “EC”) from non-compliant Thermal Power Plants on annual basis for non-utilisation of crop residue as per Rule 2, of the said Rules;

WHEREAS, Ministry of Environment, Forest and Climate Change, Government of India, in exercise of the power conferred under Section 3 of the CAQM Act has constituted the Commission for better co-ordination, research, identification and resolution of problems surrounding the air quality index and for matters connected therewith or incidental thereto;

WHEREAS, Section 12(2)(xi) of the aforesaid CAQM Act empowers the Commission to issue directions in writing to any person, officer or any authority, which includes power to direct closure, prohibition or regulation of any industry, operation or process and includes stoppage or regulation of supply of electricity or water or any other service;

WHEREAS, the Commission is empowered to take all such measures and issue directions as it deems necessary or expedient for the purpose of protecting and improving the quality of the air in the National Capital Region and Adjoining Areas;

WHEREAS, the Commission had rigorously taken up-co-firing of bio-mass/pellets in coal based Thermal Power Plants as viable and major alternate to control stubble burning to mitigate air pollution. Therefore, it was felt by the Commission to promote and create an eco-system for *ex-situ* crop residue management through biomass utilization in Thermal Power Plants (TPPs)



WHEREAS, the Commission after extensive deliberations and taking inputs of all concerned stakeholders had issued Advisory No(s) 5-7 dated 28.07.2021 to the State Governments of Haryana, Punjab and Uttar Pradesh for initiating several steps so that paddy straw based biomass pellets can be successfully used in TPPs for co-firing;

WHEREAS, the Commission subsequently reviewed the issue of co-firing of biomass pellets with the concerned stakeholders and keeping in view the compelling need to control air pollution from burning of paddy straw and its effective utilization as a resource, the Commission issued Statutory Direction No 42, dated 17.09.2021 to Thermal Power Plants situated upto a radius of 300 km of Delhi mandating co-firing of biomass based pellets up to 5-10 % substituting coal with immediate effect through a continuous and uninterrupted supply chain;

WHEREAS, NTPC, based on the trials and experimentation has confirmed before issuance of Direction No. 42 that it is technically feasible and implementable to co-fire bio-mass pellets/ torrefied pellets with coal in proportion up to 5-10% in the TPPs without any modifications in the boilers and there are no technical constraints in utilizing paddy straw pellets for co-firing and such co-firing is already being done in super-critical boilers in three NTPC plants;

WHEREAS, the Commission in a series of meetings with the concerned State Governments and stakeholders had closely monitored and reviewed the status of implementation and compliance of its Statutory Direction No. 42 dated 17.09.2021 and also issued necessary instructions from time to time for ensuring effective and strict compliance of the Commission's Directions;

WHEREAS, despite issuing Statutory Directions, subsequent continuous meetings / reviews, the progress of Harduaganj Thermal Power Station (HTPS) of Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) in ensuring the required level of co-firing has remained grossly inadequate and non-compliant;

WHEREAS, the compliance status for co-firing of requisite / targeted blend of pellets or briquettes made of crop residue in TPPs were found not satisfactory. Accordingly, high level joint inspection visits were conducted in such TPPs which included the TPP of HTPS of UPRVUNL. Based on the said inspection, amongst other instructions, HTPS of UPRVUNL was asked to immediately place multiple diversified orders to multiple vendors to ensure compliance, including setting up own pellets manufacturing plant;



WHEREAS, as per the information provided by the Ministry of Power, Government of India, HTPS of UPRVUNL has co-fired only 43461.27 Metric Tonnes in 2024-25 against the mandatory co-firing target of at least 5%, which clearly establishes the fact that entity has done only about 2.05% of biomass co-firing against a total of 20,74,605 Metric Tonnes of coal consumed in the year 2024-25, which was in gross violation of the Rules, 2023 on account of the fact that as per Rule 2 *“all coal based thermal power plants of power generation utilities shall mandatorily use minimum five per cent blend of pellets or briquettes made of crop residue along with coal”* and Rule 3 mandates co-firing of more than 3% for FY 2024-25 i.e. at least 62,238 Metric Tonnes so as to avoid imposition of stipulated environmental compensation. Therefore, due to consistent non-compliance, HTPS of UPRVUNL has failed to comply with the directives/ mandates of the Commission and failed to comply with the statutory mandates under the Rules, 2023;

WHEREAS, the Commission on 21.03.2025 constituted a Committee in terms of Rule 5 of the Rules, 2023 comprising of Members from the Commission, Central Electricity Authority (CEA) and Sustainable Agrarian Mission on use of Agri-Residue in Thermal Power Plants (SAMARTH) and Central Pollution Control Board (CPCB), to consider relaxation to thermal power plants on the Environmental Compensation imposed on them for non-utilization of crop residue on case to case basis;

WHEREAS, the Committee held detailed deliberations on 13.06.2025, 31.07.2025, 26.08.2025, 22.09.2025, 19.01.2026 and 20.03.2026 wherein performance data, compliance status, written submissions and grounds cited for relaxation were examined in depth. During its meetings, the Committee also undertook a comprehensive review of the overall performance of all eleven (11) identified TPPs for FY 2024–25 vis-à-vis the statutory co-firing targets prescribed under the Rules, 2023;

WHEREAS, the Committee also evaluated the EC, if any, liable to be imposed for non-compliance during FY 2024–25 against defaulting TPPs, in accordance with the Rules, 2023;

WHEREAS, the Committee decided that opportunity of personal hearing may be provided to the non-compliant Thermal Power Plants and accordingly, the Committee heard HTPS on 26.08.2025;

WHEREAS, upon consideration of the written and oral submissions and relevant material placed on record during the hearing, the Committee observed that the



explanations and grounds advanced by the HTPS were insufficient to demonstrate that the circumstances leading to non-compliance were beyond their reasonable control within the meaning of Rule 5 of the Rules, 2023. The material on record did not establish the existence of any force majeure-like situation or systemic impediment attributable to such factors that could justify relaxation of the statutory mandate;

WHEREAS, as per Rule 3 of the Environment (Utilisation of Crop residue by Thermal Power Plants) Rules, 2023, Environmental Compensation of **Rs. 2,74,03,497/- (Two crore seventy four lakh three thousand four hundred ninety seven only)** is required to be imposed on HTPS of UPRVUNL for violation of the Rules, 2023 without prejudice to any action under the provisions of the CAQM Act as given below;

Determination of applicable Environmental Compensation (EC) for the year 2024-25						
Details of TPP	Coal Consumed (in Metric Tonnes)	Biomass co-firing required to meet 3% (in Metric Tonnes)	Actual Biomass co-fired (in Metric Tonnes)	Biomass Co-fired (in %)	Electricity Generated in (Million Units)	Environmental Compensation in Rs. (@ Rs. 0.01 per unit of electricity generated)
Harduaganj, UPRVUNL (1265 MW)	20,74,605	62,238	43,461.27	About 2.05 %	2,740.3497	2,74,03,497/-

WHEREAS, the Committee had earlier afforded HTPS, an opportunity of personal hearing, during which its submissions were duly considered; and thereafter, with a view to further ensuring that HTPS was provided reasonable and adequate opportunity to present its case and respond to the proposed action, a Show Cause Notice dated 23.12.2025 was issued proposing the imposition of Environmental Compensation of **Rs. 2,74,03,497/- (Two crore seventy four lakh three thousand four hundred ninety seven only)** thereby granting a further period of fifteen (15) days from the date of issuance of the said notice to submit its explanation;

WHEREAS, upon consideration of the written and oral submissions and the material placed on record by HTPS, including its reply dated 05.01.2026 to the Show Cause Notice dated 23.12.2025, the Committee observed that the following key issues, among others, arose for determination:

- I. In respect of HTPS, the Committee examined the submissions made vide letter No. 08-CE(Fuel)/DT/ dated 05.01.2026, wherein the following grounds were

broadly cited to justify non-compliance with the mandated co-firing targets under the Environment (Utilisation of Crop Residue by Thermal Power Plants) Rules, 2023:

- i. **Force majeure-like conditions (July–August 2024):** Severe monsoon conditions allegedly resulted in excessive moisture in biomass pellets (being hydrophilic in nature), leading to deterioration of Gross Calorific Value (GCV) and operational difficulties in handling and feeding.
 - ii. **Technical constraints:** Shutdowns, breakdowns and maintenance of units during the year.
 - iii. **Kanwar Yatra restrictions:** Temporary road blockages affecting transportation and delivery of biomass.
 - iv. **Quality and supply issues:** Alleged poor quality and inadequate supply by vendors.
 - v. **Procurement-related challenges:** Contract expiry, limited supply under fresh orders and gaps in quality and logistics.
 - vi. **Litigation constraints:** HTPS contended that a fresh tender floated in July 2024 was stalled due to proceedings in Writ-C No. 34248 of 2024 before the Hon'ble High Court of Judicature at Allahabad.
- II. **Issue of Exemption for 660 MW unit:** HTPS also sought exemption from co-firing in its new 660 MW unit, citing subsisting guarantee/ warranty obligations of the Original Equipment Manufacturer (OEM) and technical concerns including chlorine content in biomass, ash fusion temperature, impact on boiler efficiency, auxiliary power consumption and intermittent non-availability of biomass.
- III. The technical issues were examined by the CEA. Initially, the request for exemption was rejected by CEA vide communication dated 08.07.2024. However, upon re-examination limited to contractual obligations arising out of OEM warranty conditions, CEA granted a one-time exemption up to 31.01.2025 vide communication dated 08.11.2024, strictly in respect of the 660 MW unit.



WHEREAS, the Committee carefully examined the submissions and relevant records / data and further noted that:

- i. The exemption, if any, was HTPS -specific and did not extend to the remaining three units of its plant. CEA had clarified that chlorine levels in biomass were within permissible boiler limits. HTPS continued to generate electricity during the year, thereby undermining the plea of persistent shutdowns or breakdowns. It was further reiterated that any technical relaxation, even if granted by CEA does not dilute or alter the statutory co-firing targets prescribed, nor does it absolve liability for EC in case of non-achievement of the annual mandate.
- ii. The Committee noted that HTPS had initially demonstrated commitment towards co-firing and had shown appreciable progress up to mid-FY 2023–24, as acknowledged in the communication issued by the MoP dated 06.10.2023. However, performance declined significantly thereafter. At the close of FY 2024–25, HTPS achieved only about 2.05% co-firing of annual coal consumption, as against the prescribed target of at least 3% to avoid imposition of EC. During multiple review meetings convened by the Commission during 2023-24 and during the visit of the High-Level Joint Committee (comprising representatives of the Commission, CEA, and SAMARTH) during 2024–25, HTPS was specifically advised to ensure advance procurement planning and assured availability of biomass pellets in order to comply with the notified schedule.
- iii. **Seasonal factors (Monsoon and Kanwar Yatra):** These were temporary and seasonal disruptions. HTPS failed to demonstrate why such short-term constraints could not be compensated through enhanced co-firing during the remaining months of the year.
- iv. **Procurement and supply chain gaps:** HTPS did not establish that biomass pellet availability in the region was inadequate. It was noted that supply of non-torrefied pellets in the region was generally sufficient. The failure appeared attributable to lack of sustained procurement planning rather than systemic shortage.



- v. **Litigation plea:** Upon perusal of orders dated 20.01.2025, 28.02.2025, 10.03.2025, 01.04.2025, 07.04.2025 and 18.04.2025 in Writ-C No. 34248 of 2024 titled *M/s Rajan Construction Company vs. State of U.P. & Ors.*, it was evident that:
1. No interim stay or restraint order was granted against the tender floated by HTPS.
 2. The Hon'ble High Court recorded absence of appearance on behalf of respondent authorities.
 3. The writ petition was ultimately dismissed on merits on 18.04.2025.
- vi. Accordingly, the Committee found that there was no judicial embargo preventing HTPS from proceeding with procurement. Even assuming administrative uncertainty, HTPS failed to take timely legal recourse or seek clarification from the Court. Such inaction reflects lack of due diligence and seriousness in complying with the statutory mandate.
- vii. **Comparative Performance:** The Committee observed that other similarly placed plants, including JPL (Apraava Energy), successfully undertook co-firing of non-torrefied pellets. This demonstrated that technical feasibility was not an insurmountable barrier.
- viii. **Statutory Mandate Predating Exemption:** The obligation to achieve annual co-firing targets existed independently of and prior to the request for exemption of the 660 MW unit. HTPS was expected to factor projected coal consumption and ensure proportionate biomass procurement accordingly.
- ix. **Deviation from Commitments:** The Committee recorded that HTPS's actual performance deviated materially from commitments previously furnished before the Commission.

WHEREAS, the Committee duly considered the response of the HTPS and a report was subsequently submitted to the Commission, wherein, upon comprehensive consideration of the written / oral submissions and material placed on record, the Committee concluded as follows:



- i. That the HTPS achieved only about 2.05% biomass co-firing during FY 2024–25, thereby falling short of the statutory mandate under the Environment (Utilisation of Crop Residue by Thermal Power Plants) Rules, 2023.
- ii. The grounds cited by HTPS, including monsoon-related moisture issues, temporary transportation disruptions during Kanwar Yatra, shutdowns and maintenance activities, vendor-related quality and supply concerns, procurement gaps and pendency of Writ-C No. 34248 of 2024 before the Hon'ble High Court of Judicature at Allahabad, do not constitute circumstances beyond its reasonable control within the meaning of Rule 5. The material on record demonstrates that:
 - a. The seasonal disruptions were temporary in nature and could have been mitigated through advanced planning and compensatory co-firing during other periods;
 - b. No judicial stay or restraint order operated against HTPS's procurement process;
 - c. Biomass availability in the region was not proven as inadequate; and
 - d. Other similarly situated generating stations successfully undertook co-firing during the same period.
- iii. The limited exemption, even if granted by CEA up to 31.01.2025 in respect of the 660 MW unit was expressly confined to OEM warranty considerations and did not dilute the statutory obligation to meet the annual co-firing target for HTPS for its other units. However, it was observed by the Committee that exemption as claimed w.r.t. 660 MW unit was already considered and granted for said period while determining annual co-firing target and calculation of environmental compensation accordingly.
- iv. The Committee further noted that the obligation to achieve the notified annual co-firing percentage is independent of internal procurement or administrative challenges. The circumstances placed on record indicate operational and managerial shortcomings rather than force majeure, legal impossibility or any prohibitive statutory restraint.



- v. The Committee also noted that, despite advising repeatedly to HTPS to establish in-house or proximate pellet manufacturing facilities, HTPS failed to comply with the same.

WHEREAS, the Committee observed that a series of sustained regulatory and facilitative measures were undertaken over a period of time with a view to securing compliance by HTPS; however, notwithstanding such continued efforts, HTPS did not achieve compliance in accordance with the prescribed statutory requirements;

WHEREAS, in view of the foregoing, the Committee was not satisfied that HTPS has made out a case for relaxation under Rule 5. Accordingly, EC is liable to be imposed for the shortfall in biomass co-firing during FY 2024-25. The EC computed strictly in accordance with the prescribed regulatory methodology is compensatory and deterrent in nature, intended to secure adherence to the statutory mandate;

WHEREAS, the Committee, upon a comprehensive review of the representations, replies and oral submissions placed on record and having regard to the facts and circumstances emerging in the present matter, further observed and reaffirmed that:


- i. The explanations and justifications advanced by the TPP are insufficient to establish that the circumstances cited were beyond their reasonable control within the meaning of Rule 5 of the Rules, 2023. The material on record does not demonstrate force majeure, statutory prohibition or legal impediment preventing compliance.
- ii. The constraints cited predominantly relate to operational and managerial domain of the TPP and were capable of mitigation through timely and structured managerial response and diversified procurement planning, including establishment of in-house or proximate pellet manufacturing arrangements.
- iii. Upon detailed examination of the compliance measures and actions undertaken by the TPP, there appears to be a clear lack of intent to adhere to the statutory mandate. Further, no effective efforts were evident towards achieving the prescribed co-firing targets. In view of the long-term and sustained compliance requirements aimed at preventing stubble burning incidents, the Committee was of the considered opinion that the imposition of suitable EC on the



defaulting TPP is warranted. Such imposition would not only address the present non-compliance but would also serve as a deterrent.

WHEREAS, the Commission, upon consideration of the report and recommendations of the Committee, reply of HTPS and other material available on record, is satisfied that adequate and sufficient opportunity of being heard was afforded to HTPS in line with the principles of natural justice and that no ground has been made out warranting any relaxation from the statutory requirements under the Environment (Utilisation of Crop Residue by Thermal Power Plants) Rules, 2023;

NOW, THEREFORE, in view of the foregoing, the Commission, in exercise of the powers conferred upon it under Section 12 of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, read with the provisions of the Environment (Utilisation of Crop Residue by Thermal Power Plants) Rules, 2023, hereby directs HTPS of UPRVUNL to pay Environmental Compensation of Rs. 2,74,03,497/- (Two crore seventy four lakh three thousand four hundred ninety seven only), latest by 15.04.2026 and submit proof of such deposit to the Commission forthwith, failing which the said amount shall be liable to be recovered in accordance with law and the Commission shall be at liberty to initiate appropriate coercive and penal action, including proceedings under the applicable statutory provisions, without any further notice.



(R. K. Agrawal)
Director

Copy to:

1. The Chairman, Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited, Government of Uttar Pradesh.
2. The Member Secretary, Uttar Pradesh Pollution Control Board.

Copy also to:

1. The Secretary, Ministry of Environment Forest and Climate Change
2. The Secretary, Ministry of Power
3. The Chairman, Central Pollution Control Board.


(R. K. Agrawal)
Director