

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.3083
ANSWERED ON 06.08.2026**

ENVIRONMENTAL IMPACT OF COAL-BASED THERMAL POWER PLANTS

3083. SHRI CHANDRA PRAKASH CHOUDHARY:

**Will the Minister of POWER
be pleased to state:**

- (a) whether the Government has taken measures to reduce the environmental impact of the coal-based Bokaro Thermal Power Station (BTPS) and Chandrapura Thermal Power Station (CTPS) of the Damodar Valley Corporation (DVC) and if so, the details thereof;**
- (b) the present status of installation and commissioning of Flue Gas Desulphurisation (FGD) systems at the said stations along with the reasons for any delay;**
- (c) the details of fly ash generation, utilisation and scientific ash management and the measures taken to promote biomass and Municipal Solid Waste (MSW)/Refuse Derived Fuel (RDF) co-firing at these plants;**
- (d) the details of the outsourcing agencies/Engineering, Procurement and Construction (EPC) contractors engaged for these environmental compliance works and other works, their performance against contractual milestones and delays, penalties, if any, along with the corrective measures taken in the matter; and**
- (e) the strategy adopted by the Government to ensure environmental sustainability while maintaining reliable thermal power generation at BTPS and CTPS?**

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Bokaro Thermal Power Station (BTPS) and Chandrapura Thermal Power Station (CTPS) operate under the control of the Damodar Valley Corporation (DVC). In order to comply with the environmental norms notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC), DVC has implemented several measures. These initiatives include installation of Electrostatic Precipitators (ESPs) to control particulate matter, De-NOx system to reduce nitrogen oxides, Continuous Emission Monitoring Systems (CEMS), Continuous Ambient Air Quality Monitoring System (CAAQMS), ash water recirculation, rainwater harvesting and wastewater recycling systems. Plantation has also been undertaken to mitigate the environmental impact of these power plants. Moreover, Flue Gas Desulphurisation (FGD) system has also been installed at BTPS.

(b) : In BTPS, FGD system has been installed and was declared under commercial operation on 22.06.2024.

Vide Notification dated 11.07.2025 of MoEF&CC, Category-C thermal power plants are required to comply with the stack height criteria prescribed under G.S.R. 742(E) dated 30.08.1990. Since CTPS is a category 'C' thermal power plant, FGD is not required.

(c) : Fly ash generated at BTPS and CTPS is managed in accordance with the provisions of MoEF&CC Ash Notifications and the Ministry of Power guidelines. Details of ash generation and utilisation for the last three years is given below:

Ash generation and utilisation of BTPS & CTPS for last three years						
FY:	BTPS			CTPS		
	Ash generation (LMT)	Total ash utilisation (LMT)	% age ash utilisation	Ash generation (LMT)	Total ash utilisation (LMT)	% age ash utilisation
2023-24	9.96	12.48	125.32	11.92	12.98	108.94
2024-25	9.21	11.87	128.96	11.77	15.27	129.72
2025-26	7.56	6.56	86.75	10.63	8.14	76.53

The fly ash is utilized in cement manufacturing, brick and block production. For better ash management, DVC has undertaken several measures including evacuation of ash through Rail-cum-Road (RCR) mode, filling/ disposal of ash in abandoned mines and low-lying areas, execution of Memorandum of Understanding (MoUs) with NHAI and other Government agencies for road construction projects, and regular e-auction of dry fly ash through the Expression of Interest (EOI) process.

At BTPS, co-firing of non-torrefied biomass pellets has already been implemented and around 1,286 Metric Ton (MT) of biomass was co-fired during FY 2025-26. CTPS is equipped with Ball and Tube type grinding mills for coal pulverisation, which are not suitable for pulverisation of non-torrefied biomass pellets with coal due to high Volatile Matter (VM) content and other technical and operational limitations.

At present, there is no sourcing of MSW/ RDF at either of these plants.

(d) : The details of the outsourcing agencies/contractors engaged for environmental compliance works and other works are at Annexure.

(e) : In order to ensure environmental sustainability while maintaining reliable thermal power generation at BTPS and CTPS, DVC has adopted a comprehensive compliance strategy in line with the MoEF&CC Notification dated 07.12.2015 which inter alia includes installation of ESPs, De-NO_x, FGD systems, CEMS and CAAQMS to track air quality parameters continuously, improved ash handling/ transportation mechanism and plantation drives etc.

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3083 ANSWERED IN THE LOK SABHA ON 06.08.2026

Bokaro Thermal Power Station (BTPS):

- (i) **Environmental Monitoring:** M/s ADITI R&D SERVICES, a Jharkhand State Pollution Control Board (JSPCB) approved and National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory, has been engaged for statutory environmental monitoring, including stack emissions, ambient air quality, effluent, and noise monitoring.
- (ii) **Ash Evacuation:** The details of the contracts awarded for dry fly ash and pond ash evacuation, are given below:

Dry Fly Ash Evacuation:

S. No.	Agency Name	Completion Date	Percentage (%) of ash lifted
1.	M/s Dalmia Cement (Bharat) Ltd	08.08.2026	36.35 %
2.	M/s B.K. Mahto	08.08.2026	18.00 %
3.	ASHTech (INDIA) PRIVATE LIMITED	19.04.2027	6.432 %

Pond Ash Evacuation:

Sl. No.	Agency Name	Completion Date	Percentage (%) of ash lifted
1.	JDNS ENGG WORK	14.01.2027	0.024 %
2.	SARAN CONSTRUCTION COMPANY	14.01.2027	0.809 %
3.	JDNS ENGG WORK	05.04.2027	0.000 %
4.	SARAN CONSTRUCTION COMPANY	05.04.2027	0.000 %
5.	JDNS ENGG WORK	22.10.2026	8.566 %
6.	SARAN CONSTRUCTION COMPANY	22.10.2026	59.844 %
7.	NHAI PIU DHANBAD	08.03.2027	3.750 %
8.	ASHTech (INDIA) PRIVATE LIMITED	19.04.2027	1.756 %

Ash evacuation from BTPS was stopped for around 4 months in FY 2025-26 from mid of July 2025 due to a bandh imposed by the Bermo Koylanchal Hywa Owners' Association.

Chandrapura Thermal Power Station (CTPS):

- (i) **Environmental Monitoring:** M/s IDMA Laboratories Limited, a JSPCB authorized agency, has been engaged for monitoring of stack emission, ambient air quality, noise level, effluent quality etc.
- (ii) **Ash Evacuation:** The details of the contracts awarded for dry fly ash and pond ash evacuation, are given below:

Sl. No.	Name of agency	Nature of work	Contract validity	Percentage (%) of ash lifted
Dry Fly Ash Evacuation				
1.	M/S ACC Ltd, SINDRI	Lifting & transporting of Dry Fly Ash (DFA) from CTPS, SILO for Cement manufacturing industries.	08.06.2025 to 07.09.2026	60%
2.	M/s DALMIA CEMENT; LINE#1		08.06.2025 to 07.09.2026	78.5%
3.	M/s DALMIA CEMENT; LINE#2		08.06.2025 to 07.09.2026	76.6%
4.	M/S HI TECH INFRASTRUCTURE	Lifting & transporting of DFA from CTPS, SILO for MSMEs for Bricks/blocks manufacturing industries.	09.06.2026 to 08.06.2027	7.49%
5.	M/S BAJRANG PRESTRESSED PRODUCT(P) LTD		10.06.2026 to 09.06.2027	9.9%
6.	M/S SHIV SHAKTI INDUSTRY		11.05.2026 to 10.05.2027	5.27%
7.	M/S INFINITY ENTERPRISE		04.07.2026 to 03.07.2027	8.75%
8.	M/S HEMBRAM ENTERPRISES		08.07.2026 to 07.07.2027	5%
9.	M/S EXAXX ENTERPRISES		13.01.2026 to 12.01.2027	31.19%
Pond Ash Evacuation				
10.	M/s PMP Infratech Limited	Lifting of Pond Ash from CTPS and its nuisance-free transportation to NHAI and other Central/State Government Road Construction Projects	21.10.2025 to 20.10.2026	93.16%
11.	M/s Saran Construction Company		21.10.2025 to 20.10.2026	31.00%

12.	M/s J.D.N.S Engineering Works		21.10.2025 to 20.10.2026	9.90%
13.	M/s Saran Construction Company	Lifting of Pond Ash from CTPS and nuisance-free transportation to Abandoned	22.01.2026 to 21.01.2027	15%
14.	M/s J.D.N.S Engineering Works	Open Cast mines/ Stone Quarries/ Low lying area or any other designated places outside plant following work order has been issued	22.01.2026 to 21.01.2027	9%
15.	NKAS SERVICES PRIVATE LIMITED	Lifting of Pond Ash from CTPS and transported in RCR mode using railway siding Dugda Box Yard Line No. -03 (DBYC)	01.05.2026 to 30.04.2026	Work is yet to start
16.	M/s DILIP KUMAR MAHATO	Lifting of Pond ash/Conditioned ash from CTPS through RCR mode by engaging M/s Dilip Kumar Mahato	17.01.2026 to 16.05.2027	Agency has applied for extension of work order validity
17.	National Highway Authority of India	Lifting of Pond Ash from CTPS and its nuisance-free transportation to NHAI under Bharatmala Pari yojana in state of Jharkhand.	11.03.2026 to 10.03.2026	NHAI authority will start the work after monsoon season.

Ash evacuation from CTPS was stopped for around 4 months in FY 2025-26 from mid of July 2025 due to a bandh imposed by the Bermo Koylanchal Hywa Owners' Association.
