ENVIRONMENTAL STATEMENT

OF

MEJA URJA NIGAM (P) LTD.

(A Joint Venture of NTPC Limited & U.P.R.V.U N. Ltd.)

For the financial year ending 31 March -2024.

MEJA THERMAL POWER PROJECT

P.O- Kohdar, Tehsil- Meja , Distt-Prayagraj (UP)-212301

PART - A

Environmental Statement for the Financial Year ending 31st March 2024

1	Name and address of the Owner/Occupier of the Industry operation or process.	**Shri Kamlesh Soni** – CEO (Chief Executive Officer) MUNPL
2	Industry category Primary (STC Code) Secondary (STC Code).	Coal Based Thermal Power Plant
3	Production capacity – Units	UNIT#-I & II, 660+660 = **1320 MW**
4	Year of establishment	**2011** (Erection Activities Started)
5	Date of last environmental statement submitted.	**30.09.2023**

PART - B

Water and Raw Material Consumption

1. Water Consumption (m^3/day)

Process	**1,460**
Cooling	**55,328**
Domestic	**1,226.36**

Name of Products	During The Previous Financial Year (2022-23)	During the Current financial Year (2023-24)
Electricity	**2.5717/ kwhr**	**2.5640/ kwhr**

2. Raw material consumption

Sl. no.	Name of Raw Materials	Name of Product	Unit	Consumption of raw material per unit of output	
				During The Previous Financial Year (2022-23)	During the Current financial Year (2023-24)
i.	Coal	Electricity	Kg/KWh.	0.64	0.60
ii.	Oil	Electricity	Ml/kWh	0.55	0.37

PART - C

Pollution discharged to Environment / unit of output

Pollutants	Quantity of Pollutant discharged	Concentration of Pollutant	% -Percentage of variation from prescribed standard with reasons
(A) Water	**NIL - Due to ZLD implemented (contingent)**	-	-
i- Ash Pond Effluents	NIL	NA	NA
ii- Main Plant Effluent	NIL	NA	NA
iii- Sewage Effluents	NIL	NA	NA
(B) AIR (Stack Emission) Average			
SPM	4.3 MT/Day	14.9 mg/Nm^3 (Avg)	-50.0%
SO2	250.0 MT /day	883.6 mg/Nm^3 (Avg)	783%*
Nox	106.1 MT /day	376.5 mg/Nm^3 (Avg)	276%**

* FGD is being installed to control SOx emission. Completion by Oct'24.

** For Nox control catalytic burners are installed. Under observation.

PART - D

HAZARDOUS WASTE

Hazardous wastes	2022-23				2023-24			
1. From Process								
(a) Waste Oil	NIL				NIL			
(b) Used Battery	NIL				NIL			
(c) Empty barrels Container liners contaminated with hazardous chemical wastes	Nil				Nil			
(d) BMW	RED	YELLOW	BLUE	WHITE	RED	YELLOW	BLUE	WHITE
	43.25	34.00	16.95	11.01	57.60	43.43	24.28	8.36
(e) Spent carbon or filter medium	Nil				Nil			
(f) Oily Sludge	Nil				Nil			
2. From Pollution Control Facilities	NIL							

PART - E

SOLID WASTES

Solid Wastes	Total Quantity	
	2022-23	**2023-24**
A- From Process	Nil	Nil
B- From Pollution Control Facilities		
i -Ash (Lakh Ton)	15.73607	17.84617
ii-Mill Rejects / Clinkers etc. (Ton)	1700	1900
C- (1) Quantity Recycled or Re- Utilised Within the unit		
i. Land filling (Ton)	4435	NIL
(2) Sold		
i- Ash (issued to cement industries in(Ton)	833672.6	1088269
ii outside Brick units other than brick klins	268.7	NIL
iii. Construction of road and fly over embankment	143475	174816
(3) Fly Ash disposed to captive ash dyke		
i Ash Pond disposal (Ton)	591754.7	521533

PART - F

Please specify the characterization (in term of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

	Quantity (2023-24)	Nature	Disposal method
A. Hazardous Waste			
(a) Waste Oil	Nil	Brown liquid	--
(b) Used batteries	4.06		TSDF
(c) Spent resin	Nil	Granular solid	--
(d) Oily Sludge	Nil	Black residues containing oil	--
(e) Discarded containers)	Nil	MS / PVC drums & jerry cans	--
(f) Spent Carbon	Nil	Black powder	--
B. Solid Waste			
Coal Ash	17,84617 MT	Given below	As specified in Part – E above

Characteristics of fly ash

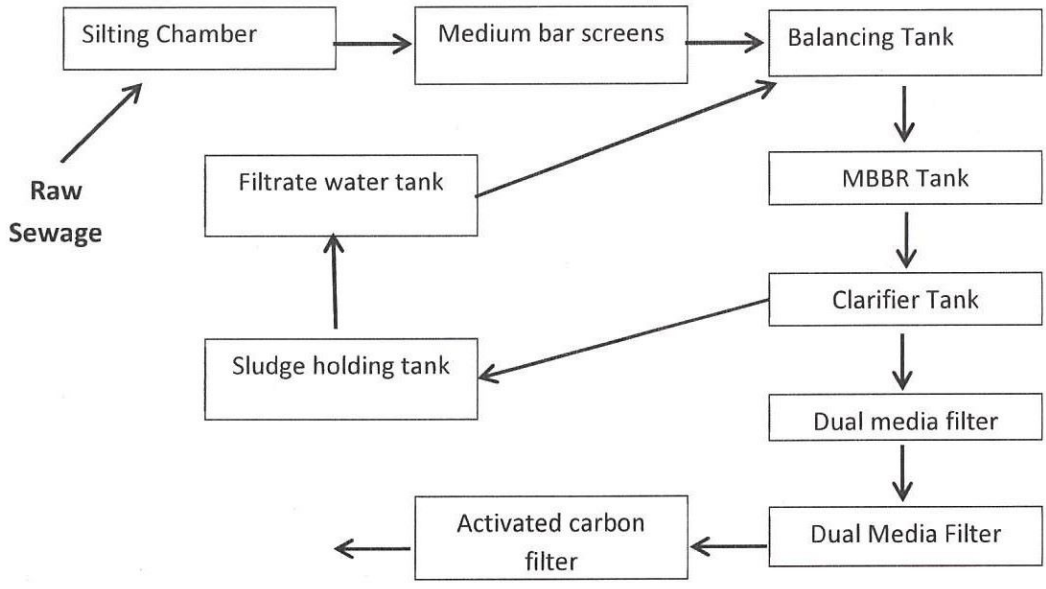
Sl. No.	Component	Composition (%)	Quantum (MT)	Disposal Practice
1-	**Fly ASH:**			
i-	Lead as pb	0.000222	3.189327	After utilization in cement industries, HCSD lining, brick plants, land filling etc, the remaining ash disposed in ash dyke.
ii-	Arsenic as As	0.000026	0.373524	
iii-	Mercury as Hg	0.000008	0.114931	
2-	**Bottom Ash**			
i-	Lead as pb	0.000135	0.469778	
ii-	Arsenic as As	0.000021	0.073076	
iii-	Mercury as Hg	0.000017	0.059157	

PART - G

Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.

- STP of 2200 KLD recycles sewage from plant and township and reutilised in horticulture leads to conservation of water.

Fig: STP in township area



Scheme of Sewage Treatment Process

- Treated sewage water are being used in horticulture work inside NTPC Plant and township area. Analysis reports of treated STP water quality are sent on monthly basis to U.P.

Pollution control Board. Third party monitoring of treated sewage water quality is also being done regularly.

- Drip irrigation system is being used in township for horticulture works. It reduces the water uses By directly targeting the root zone, water isn't wasted on areas that won't benefit the plant.

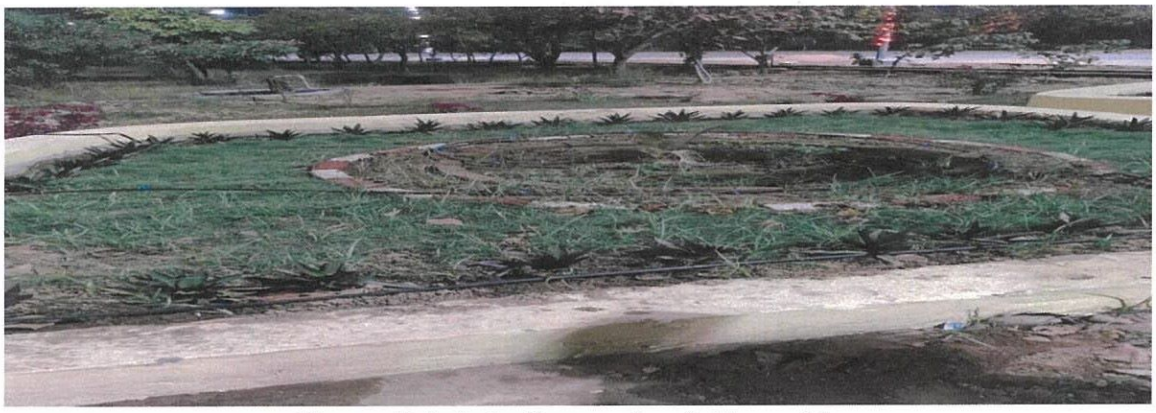


Figure: Drip Irrigation system in Township

- Liquid waste treatment system, CSSP and other effluent treatment recycles and reuse the treated effluent conserves the natural resource, water.
- Surge settling tank commissioned to reduce ash water circulation to dyke, thereby reducing evaporation loss. Around 6% of Ash handling system daily water consumption will be saved.
- Ash brick units for conservation of topsoil.
- Zero liquid discharge for effective and efficient conservation of water resource.
- 02 Rainwater harvesting pits have been commissioned for rainwater harvesting in township premises.

Fig: Rainwater harvesting structure: Township

- MUNPL, Meja has installed various state of the art pollution control devices to minimize levels of pollution and to reduce the GHG emissions from its operations. Some of the major pollution control equipment installed at MUNPL, Meja are:

a. 02 Nos. of High Efficiency Electrostatic Precipitators in all the units having efficiency more than 99.7% for control of particulate matter emissions through stacks.
b. Closed circuit cooling towers for conservation of water.
c. Ash Water Recirculation systems for 100% reuse of ash slurry disposal water after settlement of ash.
d. Dust suppression systems in the coal handling plant to minimize fugitive coal dust emission.

Fig: Dust suppression system in Coal yard

Fig: Dust suppression system in Wagon Tripler

e. Coal slurry settling ponds for reuse of water.
f. Effluent Treatment Plant (ETP) for maintaining zero discharge of effluent and reuse of wastewater after treatment.
g. Dry Fog dust suppression system in coal handling plants.

Fig: Dry Fog Dust suppression system in Conveyor belts

h. Dust collection from road is being done on daily basis by road Swiping machine.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution

- Online monitoring system i.e. AAQMS, CEMS & EQMS installed for effective monitoring of ambient air quality, emissions and effluents.

- Third party monitoring of environmental parameters for effective environment management of project is being carried out through Indian Institute of toxicology and research, Lucknow.

- Development of dense forest through Miyawaki technique for planting 30,000 nos. of sapling is completed by forest department in FY 2023-24.
- Vermin composting is being done in MUNPL premises.
- Approximately 3,73,000 nos. of saplings already planted till March'23, 45000 saplings to be planted in 2023-24.
- Fly ash being disposed to Cement factories and Other Ash users.
- Awareness program related to environment has been regularly made in nearby villages, schools and with employees and associates by MUNPL, Meja. In Financial year 2023-24 a total expenditure of amount ₹5,24,137/- has been made in awareness campaign related to environment.
- DeNox system has been installed in MUNPL, Meja for control of oxides of Nitrogen.

- Utilization of pond ash is being done in NHAI road projects by providing transport charges from MUNPL, Meja ash dyke to nearby road projects of NHAI.

- Recurring expenditure are being done for maintenance of AAQMS, CEMS and EQMS system.

- Flue Gas Desulphurization (FGD) system for control of Sox emission is commissioned and expected to be put in service by oct 2024 against cutoff time of Dec'2026.

PART - I

Any other particulars for improving the quality of the environment.

1. Mass public awareness programs:

- As an effective step taken towards the conservation of our environment, MUNPL Meja has planted approximately 3,73,750 nos. of trees till March2024.
- In order to sensitize the public in nearby areas, employees and associates, various campaign of environment awareness activities e.g. Walkathaon, awareness campaign through posters and banners, Nukkad Natak has been organized in World environment day, World Water day and World Earth day etc.
- World Environment Day was celebrated by organizing various awareness programs for peoples of nearby villages, employees, associates, families, CISF to widely spread the awareness on environment protection.

Fig: Walkathon during World Environment Day

- The World Environment day event include mass tree plantation, a walkathon with banner, poster and slogan, awareness message by senior executives and through Nukkad Natak program were carried out in and around plant in township.

Fig: Tree Plantation during World Environment Day

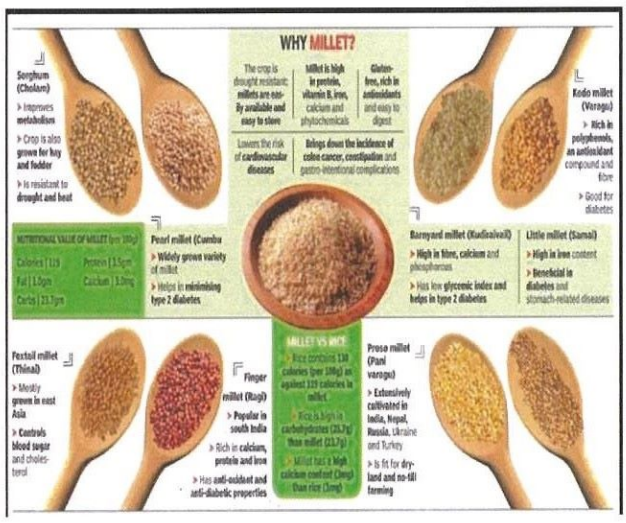
- Nukkad Natak has been organized in nearby villages and schools to sensitize the peoples about importance of Environment, water, plastic pollution and spreading awareness about importance of adopting environment friendly lifestyle.

Fig: Awareness campaign through Nukkad Natak and walkathon in the nearby village and schools regarding protection of environment.

- **Awareness about Mission LiFE:** In order to make Mission LiFE (Lifestyle for Environment) a mass movement of environmentally conscious lifestyle and spread awareness about need of Mindful and Deliberate Utilisation, instead of Mindless and Destructive Consumption, An awareness caimpaign has been done with school studets regarding mission LIFE. The participants were briefed about seven themes of life mission and importance of mindful and deliberate utilization of natural resources.
- As part of Mission LiFE (Lifestyle for Environment) Save energy campaign a cycle rally has been organized from MUNPL to Kohdar market covering a distance of 15 km. Senior executives, employees, associates, ladies and workers were actively participated in the cycle rally for spreading the message regarding various actions that can helps in saving the energy e.g. using cycle for local or short commute, use carpooling and using public transport wherever possible etc.

Fig: Cycle rally has been organized for spreading awareness regarding save energy campaign

- Millets are a multipurpose crop that consume 70 percent less water than rice, grow in half the time of wheat, and require 40 percent less energy in processing. They are a one-stop solution in the wake of climate change, water scarcity, and drought conditions along with high nutritive value to provide sustainable food security1. Millet is a heat tolerant crop that offers a profitable alternative to rice as it does not require much water to grow2 Millets require far less water than paddy or wheat and are also pest free, more resilient, and require absolutely no pesticide3.



- Campaign for introduction of sustainable food system has been launched by MUNPL. Millets has been introduced in the menu of Plant and township canteen and awareness campaign regarding adopting millets in the part of daily diet and its benefits for human as well for environment were propagated as part of Mission LiFE (Lifestyle for Environment).

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Fig: Campaign for introduction of millet items in plant canteen

- In order to get rid of plastic / polythene waste, MUNPL, Meja has declared its plant and township premises as polythene waste free zone by banning the 'single use plastic'. Along with this following has been also undertaken to facilitate the activity of banning of single use plastic.

    a) Launching awareness campaign and Bring Your own bag # BYOG campaign in the shopping complexes, vegetable market, co-operative stores etc.

    b) Display of banners and distribution of pamphlets in shops, vegetable market and parking lots.

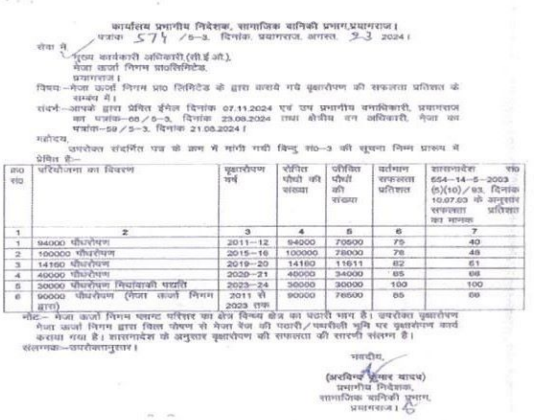
    c) Distribution of jute bags among all employees, associates, CISF etc.

    d) Encouraging employees and their families for storage of domestic waste in segregated condition.

2. **<u>Distribution of fruit bearing sapling</u>**: Distribution of fruit bearing saplings to peoples of nearby villages shall increase the green cover and helps local people to gainfully utilize their resources. MUNPL, Meja has distributed around 2000 nos. fruit bearing saplings to peoples in nearby villages.

Fig: fruit bearing sapling distribution in nearby villages

3. **Afforestation**: Afforestation has not only contributed to the enrichment and restoration of local ecosystem but also helped in carbon sequestration by serving as a 'sink' for pollutants released from the station and thereby protecting the quality of ecology and environment. Approximately 3,73,750 nos. of sapling have been planted by MUNPL till March'2024.



कार्यालय प्रभागीय निदेशक, सामाजिक वानिकी प्रभाग,प्रयागराज।
पत्रांक 574 /5-3, दिनांक, प्रयागराज, अगस्त, 23 2024।

सेवा में,
मुख्य कार्यकारी अधिकारी (सी.ई.ओ.),
मेजा ऊर्जा निगम प्रा0लिमिटेड,
प्रयागराज।

विषय:-मेजा ऊर्जा निगम प्रा0 लिमिटेड के द्वारा कराये गये वृक्षारोपण की सफलता प्रतिशत के सम्बंध में।

संदर्भ:-आपके द्वारा प्रेषित ईमेल दिनांक 07.11.2024 एवं उप प्रभागीय वनाधिकारी, प्रयागराज का पत्रांक-66/5-3, दिनांक 23.08.2024 तथा क्षेत्रीय वन अधिकारी, मेजा का पत्रांक-59/5-3, दिनांक 21.08.2024।

महोदय,
उपरोक्त संदर्भित पत्र के क्रम में मांगी गयी बिन्दु सं0-3 की सूचना निम्न प्रारूप में प्रेषित है-

क्र0 सं0	परियोजना का विवरण	वृक्षारोपण वर्ष	रोपित पौधों की संख्या	जीवित पौधों की संख्या	वर्तमान सफलता प्रतिशत	शासनादेश सं0 654-14-5-2003 (5)(10)/93, दिनांक 10.07.03 के अनुसार सफलता प्रतिशत का मानक
1	2	3	4	5	6	7
1	94000 पौधरोपण	2011-12	94000	70500	75	40
2	100000 पौधरोपण	2015-16	100000	78000	78	48
3	14160 पौधरोपण	2019-20	14160	11611	82	61
4	40000 पौधरोपण	2020-21	40000	34000	85	68
5	30000 पौधरोपण मियावाकी पद्यति	2023-24	30000	30000	100	100
6	90000 पौधरोपण (मेजा ऊर्जा निगम द्वारा)	2011 से 2023 तक	90000	76500	85	68

नोट- मेजा ऊर्जा निगम प्लान्ट परिसर का क्षेत्र विन्ध्य क्षेत्र का पठारी भाग है। उपरोक्त वृक्षारोपण मेजा ऊर्जा निगम द्वारा विल पोषण से मेजा रेंज की पठारी/पथरीली भूमि पर वृक्षारोपण कार्य कराया गया है। शासनादेश के अनुसार वृक्षारोपण की सफलता की सारणी संलग्न है।
संलग्नक-उपरोक्तानुसार।

भवदीय,
(अरविन्द कुमार यादव)
प्रभागीय निदेशक,
सामाजिक वानिकी प्रभाग,
प्रयागराज।

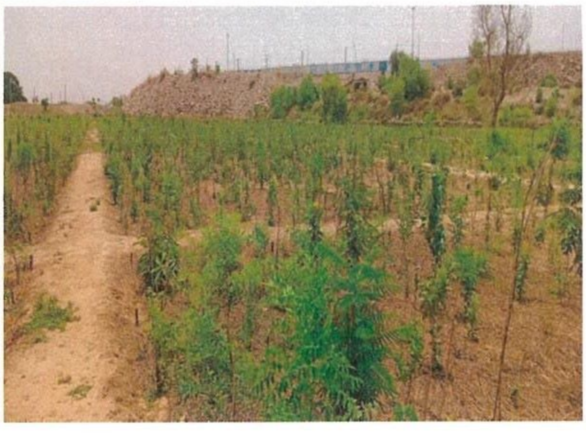


Fig: Certification of green belt by Divisional Forest officer and glimpses of green belt

4. **Mass tree plantation drives:** MUNPL, Meja has organizing various mass tree plantation drive programs. 2500 nos. tree sapling were planted on mass tree plantation drives launched in different occasions.

Ajit Basak 28/9/2024

(Kamlesh Soni)

CEO (Chief Executive Officer), MUNPL, Meja

अजित बसक/Ajit Basak
महाप्रबन्धक (प्र० एवं अनु०) / GM (O & M)
मेजा ऊर्जा निगम (प्रा) लि., प्रयागराज
Meja Urja Nigam (P) Ltd., Prayagraj
(एनटीपीसी लिमिटेड एवं उ.प्र.रा.वि.ऊ.नि.लि.का संयुक्त उपक्रम)
(A Joint Venture of NTPC Ltd. & UPRVUN Ltd.)