National Green Tribunal Principal Bench, New Delhi,

Original Application No. 75 of 2020

The matter of: Pawan Kumar Tiwari Vs Union of India & Ors.

Joint Inspection Report of – M/s Panki Power Station, Panki, Kanpur (UP)

1. Hon'ble NGT vide its order dated 01.07.2020, in the matter of Pawan Kumar Tiwari Vs Union of India & Ors., OA No 75/2020, constituted a joint inspection committee to submit factual report in this matter. The NGT order of even number and date is enclosed as **Annexure-1** for ready reference. Its relevant para pertaining to the mandate of the joint inspection committee is reproduced hereunder as

   "1. Grievance in this application is that Panki Thermal Power Plant was set up at Kanpur in the year 1977 and approval for expansion was granted in the year 2017. The plant is causing air and water pollution resulting in damage to public health and the environment. The remedial measures need to be taken as Kanpur city is already suffering from air pollution. The applicant has relied upon newspaper reports and representations made to the authorities.

   2. Before proceeding further, we consider it necessary to require a factual report in the matter from a joint Committee comprising of the MoEF&CC Regional Office, CPCB, State PCB and the District Magistrate, Kanpur (Rural) within two months by email at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. The State PCB will be the nodal agency for coordination and compliance."

2. The following members representing their concerned departments are nominated for the joint inspection committee:

   i. Additional City Magistrate-7 Kanpur Nagar

   ii. Shri. S. B. Franklin, Regional Officer, UPPCB, Kanpur

iii. Dr. Susheel Kumar, Scientist-C, MoEF&CC, Regional Office, Lucknow

iv. Shri Rajendra D. Patil, Scientist-D, CPCB, Regional Directorate, Lucknow

3. In compliance of the above direction from the NGT, the joint committee visited the Panki Thermal Power Plant (TPP) on August 14, 2020 to review the extent of pollution by existing unit and activities in operations for on-going construction of the new 01 x 660 MW Coal based Supercritical Thermal Power unit. Discussions were carried out in the office of Unit Head, Shri V. P. Katiyar [Unit Head along with other officials including Shri Rajeev Kumar [Environment officer, Panki TPS], Shri V. K. Gupta [SE, Civil, Panki TPS] and Shri M. M. Chaturvedi [SE, Panki TPS], followed by the site visit. Following are some of the salient observations made by the joint committee.

3.1. A total of four thermal power units were established at Panki Kanpur by M/s UP Rajya Vidyut Utpadan Nigam Limited. The development was in two phases. Two units (Unit-1 and Unit-2), each of 32 MW, were operational in the year 1967-1968 and another two units (Unit-3 and Unit-4), each of 105 MW, were commissioned in the year 1977. Out of these four units, two were close down and deleted in 1999 & 2005. Since then, only two power generating units (Unit No 3 & 4) of 105 MW capacity each were in operations. These two operational units were also closed down and deleted by Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited through their office order dated 17.02.2018 (**Annexure- 2**).

3.2. On the day of site visit, no operational power generating unit was found at the site. Structures of these units were also found dismantled. And hence there is no contribution of any air and water pollution load by those units. It was also informed by the representative of Panki TPP that the fly ash generated was utilized for various beneficiary purposes. The fly-ash utilization statement provided by the unit is attached at **Annexure – 3**.

3.3. The Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited has obtained Environmental Clearance (EC) from MoEF&CC for expansion to 01 x 660 MW Coal Based Supercritical thermal power unit at Panki, Kanpur. The highlights of the EC issued are:

3.3.1. The MoEF&CC has issued EC for the said project vide office order no. J-13012/35/2013-IA.I(T) dated 29.06.2017.

3.3.2. Terms of Reference has been issued for the above mentioned project on 16.09.2014 for preparation of EIA/EMP studies and carrying out Public Consultation.

3.3.3. Baseline Environmental Studies have been conducted during winter season (15.12.2014-15.3.2015) and Public Hearing has been conducted by U.P. Pollution Control Board on 21.08.2015 at Officers Club, Executive Colony, Panki TPP.

3.3.4. As per EC, the expansion as 1x660 MW Coal Based Supercritical thermal power unitis proposed within the existing premises and does not require any additional land acquisition. Company has about 108 acres of land, at the existing Panki TPP for installation of the proposed project after demolishing the existing old and dilapidated quarters of the colony.

3.3.5. There are no National Parks, Wildlife Sanctuaries, elephant/tiger reserves or any other protected area and Eco-Sensitive Zones, etc. within 10 km radius of the project. The nearest town is Kanpur.

3.3.6. Supercritical boilers installed will be coal fired. Annual Coal requirement for the proposed project is 2.764 MTPA at 85% PLF.

3.3.7. Anticipated total ash generation is 0.93976 MTPA (Fly ash: 0.7578 MTPA & Bottom ash: 0.1879 MTPA).

3.3.7.1. For the proposed project, fly ash will be collected in dry form and transported to the neighboring ash utilization plants. Bottom ash,

coarse ash and fly ash collected in lean slurry form in the slurry sump and disposed off in the ash dyke.

3.3.7.2. Any surplus unused fly ash along with bottom ash will be disposed off in slurry in the ash dyke. High Concentrated Slurry Disposal system will be installed for disposal of accumulated fly ash at silos.

3.3.7.3. Suitable HDPE liner will be provided on the bottom of the pond and sides of the pond will be raised with bund to ensure impermeability of the ash pond. Risk assessment and failure scenarios for mechanical, electrical systems and LDO (2x500 KL) have been predicted and risk mitigation measures have been proposed.

3.3.8. Total water requirement for the proposed project is 1650 m^3/hr and would be sourced from Lower Ganga Canal. Irrigation Department of UP Govt. accorded permission for the same.

3.3.9. RCC Single-flue Stack of height 275 m will be set up for dispersion of air pollutants. ESP with efficiency of 99.99% will be set up to achieve Particulate Emission standard of 30 mg/Nm^3. The Selective Catalytic Reduction (SCR) shall be installed to meet the Nitrogen Oxides emission standard of 100 mg/Nm^3. The Flue Gas De-Sulphurisation (FGD) system shall be installed to meet the Sulphur Dioxide emission standard of 100 mg/Nm^3. Dry fog suppression system will be installed to control fugitive emissions at Coal Handling Plant. ETP with RO system shall be installed to achieve the standards. Greenbelt will be developed in the one third of the total area, as per MoEF&CC guidelines with the help of Forest Department.

3.3.10. Several specific conditions are also imposed on the project proponent which include regular implementation on approved action plan prepared by SPCB in respect of Kanpur Critically Polluted Area.

3.4. Considering the observations at 3.3, it is clear that EC is issued by MoEF&CC following the standard protocol. The raw material requirement and pollution load generation during the process and all pollution control devices to be installed are clearly defined in the said EC.

3.5. On the day of inspection, the committee visited the site where the construction of new unit (i.e. 01x660 MW Coal Based Supercritical thermal power plant) and revamping of ash dykes was in progress. As stated by the representative of unit, the existing STP and ETP will be revamped to meet out the requirement of new 01x660 MW unit. The committee observations are as following:

3.5.1. Temporary barriers are placed along the construction site to restrict the horizontal movement of air pollutants. Water is sprinkled on impacted the roads through tankers and records are maintained in the logbook.

3.5.2. The proponent has conducted ambient air quality monitoring at two locations near the construction area during December 2019. As per the analytical reports submitted by proponent, the PM_{10} concentrations were reported below 80 $\mu g/m^3$ which less than Notified standards of 100 $\mu g/m^3$ whereas $PM_{2.5}$ concentrations were reported below 45 $\mu g/m^3$ which is also less than Notified standards of 60 $\mu g/m^3$. It is informed to the committee that during COVID-19 pandemic, construction work was stopped and monitoring of air quality could not be conducted. However, considering the potential of air pollution by the on-going construction activity, the ambient air quality monitoring is required to be conducted at more locations (minimum four around the site) and more frequently (at least monthly basis).

3.5.3. It was informed that 1447 residential buildings, 14 Non Residential Buildings in old colony and 16 Non Residential Building structures in previous power plant were dismantled by the project proponent. Total construction & demolition waste (rubbish waste) generated was estimated around 15,577 m^3, which was auctioned through MSTC to M/s. Naresh and Co, Amritsar for disposal through beneficiary utilization. However, proponent doesn't have any information regarding final disposal method adopted by the said firm as stated.

3.5.4. Noise is monitored on monthly basis at 19 different locations in the working zone area. As per the records of last three monitoring reports, maximum noise level reported as 98.9 dBA.

3.5.5. During the site visit, it was observed that the residential areas have encroached at the edge of existing ash dykes. As there is no adequate buffer zone between ash dyke area and residential colonies, any mishap can lead to the direct human hazard.

3.5.6. Representative of the unit informed that ash dykes will be revamped and more buffer zone around the ash dyke will be left. It was observed that plantation around the ash dyke need to be intensified with broad leaf trees, greenbelt area around the ash dyke also required to increase to circumvent the fugitive air pollution due to fly ash.

3.5.7. Four numbers of Ready-Mix Concrete (RMC) manufacturing plants are operational at the site. It was found that all these RMC plants are made operational without obtaining any NOC/permission from the SPCB.

3.5.8. Similarly, DG set was also seen installed near ash dyke area, requiring for the day to day construction activity however NOC/Permission for the same was also not taken from the SPCB.

3.5.9. Information of 11 number of bore wells within the project site was given by the unit representative however NOC/Permission for the same was not taken from the CGWA/CGWB.

3.5.10. As per the OPD details of the years of 2016 and 2017, provided by Dy. CMO, Project Hospital, 01x660 MW Panki Extension, Kanpur, Bronchial Asthma is reported in 49 patients out of 13586 patients attended in OPD during 2016 and 38 out of 13023 patients attended in OPD during 2017. However, the project proponent should conduct detailed epidemic study and submit the status to UPPCB.

4. Considering all above mentioned observations, it is concluded that UP Rajya Vidyut Utpadan Nigam Limited has started construction of 01x660 MW Coal Based Supercritical power unit after obtaining required Environmental Clearance (EC) from MoEF&CC. The existed power generating units (Unit 1-4) were phased out/deleted and construction of proposed new unit within the premises, without requiring any additional land acquisition, was going on. Though the project proponent is taking some of the measures to control the pollution generated during construct activities, the further following is recommended,

4.1. Though the barriers are placed around the site to restrict the horizontal movement of air pollutants, it was breached at several points. And hence adequate steps need to be taken to amend breaches and restrict the horizontal movement of air pollutants effectively.

4.2. As per the ambient air quality monitoring report of two locations, near the construction area, during December 2019, the PM_{10} and $PM_{2.5}$ concentrations reported were within the Norms. However, considering the potential of air pollution by the on-going construction activity, the ambient air quality monitoring is required to be conducted at more locations (minimum four) and more frequently (at least monthly basis).

4.3. Project Proponent is required to adopt mitigation measures to circumvent the ambient noise below the stipulated limits.

4.4. Adequate buffer zone may be provided around the ash dykes in the form of greenbelt intensified with broad leafed trees to avoid any adverse impact/ hazard on nearby residential areas.

4.5. CGWA/CGWB may look into the matter of NOC regarding ground water abstraction by the project proponent and take appropriate action in case it is found that violation of norms have taken place.

4.6. The project proponent should conduct detailed epidemiological study and submit the details to UPPCB.

4.7. UPPCB may look into the matter of operating RMC plant and DG set without obtaining prior permission. The appropriate Environmental Compensation may be imposed in case it is found violating the Norms.

4.8. The various Rules/guidelines regarding Construction & Demolition waste and hazardous waste should be strictly followed.

Committee member	Signature
Shri Arun Kumar, Additional City Magistrate 07, Kanpur Nagar.	31/8/2020 Thru Asstt SDM(G)
Dr. S. B. Franklin, Regional Officer, UPPCB, Kanpur	31/8/2020
Dr. Susheel Kumar, Sci – C, RO of MoEF&CC, Lucknow	31/8/2020
Shri Rajendra D Patil, Sci – D, CPCB Regional Directorate, Lucknow	31.08.2020
Date:	

ANNEXURE – 1

Item No. 02 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 75/2020
(I.A. No. 149/2020 & I.A. No. 150/2020)

Pawan Kumar Tiwari Applicant(s)

Versus

Union of India & Ors. Respondent(s)

Date of hearing: 01.07.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE Dr. SATYAWAN SINGH GARBYAL, EXPERT MEMBER

Applicant(s): Ms. Richa Kapoor, Advocate

ORDER

1. Grievance in this application is that Panki Thermal Power Plant was set up at Kanpur in the year 1977 and approval for expansion was granted in the year 2017. The plant is causing air and water pollution resulting in damage to public health and the environment. The remedial measures need to be taken as Kanpur city is already suffering from air pollution. The applicant has relied upon newspaper reports and representations made to the authorities.

2. Before proceeding further, we consider it necessary to require a factual report in the matter from a joint Committee comprising of the

Page 01 of 02

ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. The State PCB will be the nodal agency for coordination and compliance.

A copy of this order be sent to the Regional Officer, MoEF&CC, Lucknow, CPCB, State PCB and the District Magistrate, Kanpur (Rural) by email for compliance.

The applicant may furnish a set of papers to the Regional Officer, MoEF&CC, CPCB, State PCB and the District Magistrate, Kanpur Rural and file affidavit of service within one week.

List for further consideration on 09.11.2020.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Satyawan Singh Garbyal, EM

July 1, 2020
Original Application No. 75/2020
(I.A. No. 149/2020 & I.A. No. 150/2020)
AK

ANNEXURE-2

एस0पी0 चौबे
मुख्य अभियन्ता

तापीय परिचालन इकाई
उ0प्र0 राज्य विद्युत उत्पादन निगम लिमि0
14वां तल, शक्ति भवन विस्तार,
लखनऊ
Ph. No. - 0522-2287873
Fax No. - 0522-2287861
Email ID-cgm.to@uprvunl.org
CIN:U40101UP1980SGC005065

433

21 FEB 2018 ... 1152 ... 21/2/18

पत्रांक: /मु0अभि0(ता0परि0)/उ0अनु0/ पनकी

दिनांक: 17 फरवरी, 2018

कार्यालय ज्ञाप

उ0प्र0रा0 विद्युत उत्पादन निगम लि0 के पनकी ताप विद्युत गृह की इकाई संख्या -03 एवं -04 (अधिष्ठापित क्षमता 105 मे0वा0 प्रत्येक की) को अधिष्ठापित क्षमता से हटाये जाने सम्बन्धी प्रस्ताव पर उ0नि0लि0 के निदेशक मण्डल द्वारा दिनांक 14.09.2016, 19.04.2017 एवं 20.12.2017 को क्रमशः 169वीं, परिचालन माध्यम एवं 173वीं बैठक में इकाईयों को अंतिम रूप से बंद कर अधिष्ठापित क्षमता से हटाने का निर्णय लिया गया था। उक्त निर्णय के क्रम में उ0प्र0 शासन के पत्र संख्या-178/24-01-2018-149(B)/2017 ऊर्जा अनुभाग-1 दिनांक 16.02.2018 द्वारा, पनकी ताप विद्युत गृह की इकाई संख्या -03 एवं -04 को तत्काल प्रभाव से अधिष्ठापित क्षमता से हटाने के निर्णय से अवगत कराया गया है।

अतः उ0प्र0रा0वि0उ0नि0लि0 के निदेशक मण्डल एवं उ0प्र0 शासन के निर्णय के आलोक में, पनकी ताप विद्युत गृह की इकाई सं0 -03 एवं -04 को तत्काल प्रभाव से उ0नि0लि0 की अधिष्ठापित क्षमता से delete किया जाता है।

निदेशक मण्डल की आज्ञा से

पत्रांक: /मु0अभि0(ता0परि0)/उ0अनु0/ पनकी

दिनांक: 17 फरवरी, 2018

निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित
सचिव, केन्द्रीय विद्युत प्राधिकरण, पावर डाटा मैनेजमेण्ट डिवीजन, सेवा भवन, रामा कृष्णापुरम, नई दिल्ली।

(एस0पी0 चौबे)
मुख्य अभियन्ता (ता0परि0)

OFFICE OF EXECUTIVE ENGINEER-O
D. N.
File No. 268
Dt. 6-3-18

पत्रांक: 119 /मु0अभि0(ता0परि0)/उ0अनु0/ पनकी

दिनांक: 17 फरवरी, 2018

निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित-

1. निजी सचिव, प्रमुख सचिव (ऊर्जा), उ0प्र0 शासन, बापू भवन, लखनऊ।
2. निजी सचिव, अध्यक्ष उ0प्र0 राज्य विद्युत उत्पादन निगम लि0 शक्ति भवन, लखनऊ।
3. निजी सचिव, प्रबन्ध निदेशक उ0प्र0रा0वि0उ0नि0लि0 शक्ति भवन, लखनऊ।
4. अध्यक्ष, उ0प्र0 राज्य विद्युत नियामक आयोग, विभूति खण्ड, गोमती नगर, लखनऊ।
5. निजी सचिव, प्रबन्ध निदेशक उ0प्र0 पावर कारपोरेशन लि0, शक्ति भवन, लखनऊ।
6. निदेशक (तकनीकी)/परि0 एवं वाणिज्य/वित्त/कार्मिक प्रबन्धन एवं प्रशासन) उ0प्र0 राज्य विद्युत उत्पादन निगम लि0, 9वां तल शक्ति भवन विस्तार, लखनऊ।
7. निदेशक, एस0एल0डी0सी0, उ0प्र0 पावर ट्रान्समिशन कारपोरेशन लि0, गोमती नगर, लखनऊ।
8. मुख्य अभियन्ता (पी0पी0एम0एम0/मा0सं0/ईंधन/आर0 एण्ड एम0/वाणिज्य/प्रगति/पर्यावरण एवं सुरक्षा/जानपद-नव परियोजना) उ0प्र0 राज्य विद्युत उत्पादन निगम लि0, शक्ति भवन विस्तार, लखनऊ।
9. मुख्य महाप्रबन्धक (वित्त), उ0प्र0 राज्य विद्युत उत्पादन निगम लि0, 8वां तल, शक्ति भवन विस्तार, लखनऊ।
10. मुख्य अभियन्ता, पनकी ताप विद्युत गृह, पनकी कानपुर।
11. कार्यालय प्रति।

Office of the
Superintending Engineer Circle-
Diary No. 159
Date 28-2-18
Panki Thermal Power Station
Panki Kanpur

17-2-18
(एस0पी0 चौबे)
मुख्य अभियन्ता (ता0परि0)

All SEs for n/a

Copy to EE, BMD/TMD/CGD

Copy to all All EEs

Page 01 of 01

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ANNEXURE – 3

UP GOVT.UNDERTAKING

कार्यालय अधीक्षण अभियन्ता
विद्युत जानपद मण्डल
1x660 मे0वा0 पनकी विस्तार तापीय परियोजना
उत्तर प्रदेश राज्य विद्युत उत्पादन निगम लि0
पनकी : कानपुर–208020 (उ0प्र0)

OFFICE OF THE SUPERINTENDING ENGINEER (CIVIL)
1x660 MW PANKI EXTN. THERMAL PROJECT
U.P.RAJYA VIDYUT UTPADAN NIGAM LTD.
PANKI, KANPUR-208020 (UP)
CIN : U 4 0 1 0 1 U P 1 9 8 0 S G C 0 0 5 0 6 5
e-mail: se.ecc.panki@uprvunl.org

No. /PTPS/1x660 MW Civil Circle/Ash Utilization/2019 Dtd. ,2019

Chief Engineer,
Environment & Safety,
U.P.Rajya Vidyut Utpadan Nigam Ltd.,
Shakti Bhawan Extn., 7th floor,
14-Ashok Marg,
Lucknow-226001 (UP).

Subject:- Data on fly ash production and utilization for the year 2015-16,2016-17 & 2017-18.

Dear Sir,

As desired by your office] the data on fly ash production and utilization report for the years explained above in prescribed format as per enclosed Annexure for your kind perusal and necessary action.

Thanking you.

Encl.:- As above

(VIVEK KUMAR)
SUPERINTENDING ENGINEER

No. 339/PTPS/1x660 MW/Civil Circle/Ash utilization/2019 Dtd. 12/8,2019

Copy forwarded to the following for kind information and necessary action.

01-Chief Engineer, 1x660 MW Panki Thermal Power Station, Kanpur.
02-Executive Engineer,ECMD/OGD, 1x660 MW Panki Thermal Power Station, Kanpur.

(VIVEK KUMAR)
SUPERINTENDING ENGINEER

MINISTRY OF POWER
CENTRAL ELECTRICITY AUTHORTY THERMAL
CIVIL DESIGN DIVISION

Monthly Abstract of Ash Generation and Utilization
(For the period from 1st April 2017 to Feb 2018)

Name of Power Utility: 2x105MW
Name of Thermal Power Plant: Panki Thermal Power Station ,Panki Kanpur
Installed Capacity (Total):

PERIOD OF REPORT: 1st April 2017 to Feb 2018

Sl no	ASH GENERATION AND UTILIZATION						MODE OF UTILIZATION AND UTILIZATION IN EACH MODE									
	Month	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	% Age utilization	In making of Fly Ash based/Bricks/Blocks/Tiles etc.	In manufacture of Portland Pozzolana Cement	In construction of Highways & Roads including Flyovers	Part replacement of cement in concrete	In Hydro Power sector in RCC Dam Construction	In Ash Dyke raising	In reclamation of Low lying Area	In Mine Filling	In Agriculture /Waste land Development	Others
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	APRIL	71978.4	35	25192.44	21229.74		-	1689.74	7540							12000
2	MAY	84509	34	28733.18	22307		15.4	1603.77	6600							14088
3	JUNE	79550.01	34	27047.03	27382.11		160	5102.11	10000							12120
4	JULY	3936.72	34	1338.48	31970		-	260.47	10500							21210
5	AUGUST	-	-	-	36540		-		15440							21100
6	SEPTEMBER	65069.78	34	22123.72	52635	358.45%	108	2379.06	17000							33148
7	October	15996.23	34	5438.71	47722		-	129.93	15000							32592
8	November	-	-	-	50832		-	-	19800							31032
9	December	-	-	-	20688		-	-	10000							10688
10	Jan	-	-	-	38540		-	-	16400							22140
11	Feb	-	-	-	24510		-	-	11000							13540
	TOTAL	321040.14	34.22	104434.85	377355.9		283.4	11165.08	139280							223658
							Dry Ash =11448.48			Wet Ash Total(10+17)=362938						

Abbreviations:	
MW	Mega Watt
TPS	Thermal power stations
KM	Kilometer
MT	Million Tonne
Ha	Hectare

EXECUTIVE ENGINEER(ECMD)
05/03/18

(For the Period from APRIL, 2016 to MARCH, 2017)

POWER UTILITY : U.P.R.V.U.N.L. , LUCKNOW NAME OF THERMAL POWER PLANT:- Panki Thermal Power Station, Panki, Kanpur

ALLED CAPACITY :- 2x105 MW

Sl. No.	ASH GENERATION AND UTILIZATION						MODE OF ASH UTILIZATION AND UTILIZATION IN EACH MODE									
	Month	Coal Consumed (MT)	Ash content (%)	Ash Generation (MT)	Ash Utilized (MT)	Ash Utilization in Percentage	In making of Fly Ash based Bricks / Tiles etc. (in MT)	In manufacture of Portland Pozolan Cement (in MT)	In construction of Highways & Roads including Flyovers	Part replacement of cement in concrete	In Hydro Sector as part replacement of cement or in Roller compacted Concrete Dam Construction.	In Ash dyke raising	In Reclamation of Low Lying Area (in MT)	In Mine Filling	In Agriculture / Waste Land Development	Highway /Fly overs /Embankment /Roads/ Laad development etc
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	4/2016	50954.00	33.34	16988.00	26625.39		88.00	4537.39	12000.00							10000.00
2.	5/2016	66753.05	33.16	22142.00	23364.42		100.00	3264.42	11000.00							9000.00
3.	6/2016	66284.80	31.25	20714.00	20540.00		441.00	2099.00	8000.00							10000.00
4.	6/2016	58566.70	33.15	19432.43	24314.95	143.32 %	820.00	2994.95	12500.00							8000.00
5.	8/2016	99578.74	32.01	31907.16	39378.22		1402.00	3976.22	20000.00							14000.00
6.	9/2016	99965.66	33.62	33608.45	38944.59		780.00	2164.59	23000.00							13000.00
7.	10/2016	102854.17	32.25	33170.00	38461.36		1313.83	4147.53	15000.00							18000.00
8	11/2016	82524.98	33.00	27233.24	32728.01		611.86	3316.15	12800.00							16000.00
9.	12/2016	48246.17	34.00	16403.64	18640.91		44.04	2396.87	7000.00							9200.00
10.	01/2017	58086.55	28.00	19168.56	33060.51		-	4010.51	14050.00							15000.00
11.	02/2017	-	30.00	-	32564.00		-	-	18000.00							14564.00
12.	03/2017	6518.07	33.00	2150.96	19540.00		-	-	11000.00							8540.00
	Total	740432.89	32.23 (Average)	242018.28	348162.36		5600.73	32907.63	164350.00	Wet Ash Total (10+17) = 309654.00 MT						145304.00
							Dry Ash 38508.36 MT									

Abbreviations –

MW - Mega Watt
TPS - Thermal Power Station
KM - Kilometre
MT - Metric Tonne
Kcal - Kilocalories

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MONTHLY ABSTRACT OF ASH GENERATION & UTILIZATION

(For the Period from April, 2015 to Feb, 2016)

NAME OF POWER UTILITY : U.P.R.V.U.N.L., LUCKNOW   NAME OF THERMAL POWER PLANT : Panki Thermal Power Station, Panki, Kanpur

INSTALLED CAPACITY :- 2x105 MW

	ASH GENERATION AND UTILIZATION						MODE OF ASH UTILIZATION AND UTILIZATION IN EACH MODE								
Sl. No.	Month	Coal Consumed (TPM)	Ash content (%)	Ash Generation (TPM)	Ash Utilized (TPM)	Ash Utilization in Percentage	In making of Fly Ash based Bricks / Blocks / Tiles etc. (in MT)	In manufacture of Portland Pozzolana Cement (in MT)	In construction of Highways & Roads including Fly Ash [illegible]	[illegible]	[illegible] Concrete / Dam Construction [illegible]	In Ash Dyke raising	In Reclamation of Low Lying Area (in MT)	In Mine Filling	In Agriculture / Waste Land [illegible]
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	4/2015	72942.00	33.78	24659.80	[illegible]	397.84%	-	9292.95					[illegible]		
2.	5/2015	76550.00	34.93	26719.33	[illegible]22.72		-	10292.72					[illegible]		
3	6/2015	80566.00	33.93	27417.82	42613.37		-	9958.37					[illegible]		
4	7/2015	5055[illegible].00	33.72	[illegible]	[illegible]		-	10555.63							
5	8/2015	39995.00	32.92	[illegible]	[illegible]		-	[illegible].66					[illegible]		
6.	9/2015	[illegible].00	34.00	15984.92	[illegible]		-	[illegible]					[illegible]		
7	10/2015	48275.00	33.57	162[illegible].19	[illegible]		-	[illegible]					[illegible]		
8.	11/2015	32466.00	33.82	[illegible]	63792.92		624.00	[illegible]					[illegible]		
9.	12/2015	NIL	NIL	NIL	54000.00		NIL	NIL					[illegible]		
10	01/2016	NIL	NIL	NIL	48000.00		NIL	NIL					[illegible]		
11.	02/2016	NIL	NIL	NIL	40000.00		NIL	NIL					[illegible]		
	Total	472835.00	33.84 (Average)	160383.51	635078.26		624.00	63504.26					[illegible]		
							64128.26								

Abbreviations –

MW - Mega Watt

TPS - Thermal Power Station

KM - Kilometre

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[signature] 08.03.16

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