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Report on implementation of action plan to achieve 100% fly ash utilisation by the Thermal Power Plants (TPPs)

Background

Hon'ble National Green Tribunal (NGT) vide its orders dated 20.11.2018 and 12.03.2019 in the matter of Sandplast (India) Ltd. & Anr. Vs. MoEF&CC & Ors. in O. A. No. 102 of 2014 directed MoEF&CC to constitute a joint committee comprising the MoEF&CC, CPCB, IIT Roorkee and any other members considered necessary for implementation of action plan to achieve 100% fly ash utilisation by the Thermal Power Plants (TPPs) and its final report is to be submitted by MoEF&CC.

In pursuance of Hon'ble NGT order, MoEF&CC has constituted a joint committee under the chairmanship of Joint Secretary (HSMD) comprising the following members to review the fly ash utilisation and finalise action plan to achieve 100% utilization of fly ash generated from each TPP in an environmentally sound manner:

(i) Member Secretary, Central Pollution Control Board;

(ii) Representatives of IIT Rorkee;

(iii) Representatives of Ministry of Power;

(iv) Representatives of Ministry of Coal;

(v) Representatives of Ministry of Housing and Urban Affairs;

(vi) Representatives of NHAI;

(vii) Representatives of Odisha State Pollution Control Board.

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Four meetings of Joint Committee were convened on 18th April, 17th – 18th July, 30th September, 2019 and 11th December, 2019 respectively. Details of deliberations of the meetings and recommendations of the joint committee are as follows:

1. The Ministry of Environment, Forest and Climate Change (MoEF&CC) issued the first Fly Ash notification on 14th September, 1999, which has subsequently been amended in 2003, 2009 and 2016. The Fly Ash notification (1999) mandates the use of fly ash for the purpose of manufacturing ash-based products such as cement, concrete blocks, bricks, panels or any other material or for construction of roads, embankments, dams or for any other construction activity within a radius of 300 km from thermal power stations (TPPs). Besides, it is also mandatory to use fly ash in the external overburden, mines backfilling or stowing of mines within a distance of 50 km. It is also mandatory for all construction agencies/Government Departments undertaking road projects, fly over/ bridges as well as local authorities to make provisions for use of fly ash in their tender documents and schedule of material and rates. The notification also prescribes the targets for Fly Ash utilization in a phased manner for all Coal/Lignite based TPPs in the country so as to achieve 100% utilization of fly ash. The amended notification (2016) provides that the cost of transportation of ash up to 100 km distance shall be borne by the TPPs and for distance between 100 km to 300 km, cost will be shared equally between the user and TPPs. The notification further prescribes to constitute a Monitoring Committee at the Central level and State level to monitor the implementation of provisions of fly ash notification.

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2. Various efforts made for enhanced utilisation of fly ash in the following sectors:

i. **Ash based building construction material such bricks/blocks/tiles.**

Use of fly ash in manufacture of fly ash bricks is technically well established and being utilized in large scale in some part of country. However, the extent of fly ash utilization under this sector is about 9% only and it needs enhancement.

In order to enhance fly ash utilization, MoEF&CC has issued the following necessary directives through its gazette notification dated 25-01-2016:

a. Mandatory use of fly ash based products for construction activity by every construction agency within a radius of 300 km from coal/lignite based power plants.

b. Power plant to bear transportation cost of fly ash up to radius of 100 km and beyond radius of 100 km to 300 km, it shall be borne equally by the fly ash users and power plants.

c. Coal based power plant to bear entire cost of transportation of fly ash up to radius of 300 km in asset creation program of Government involving construction of building, roads, Dams.

Further, to maximize fly ash utilization in this sector, MoEF&CC has also issued draft amendment vide gazette notification dated 26-02-2019 inviting public comments, wherein the following provisions have been proposed:

i) No new red clay brick kiln shall be installed within radius of 300 km of power plant.

ii) Existing red clay brick kiln within radius of 300 km of power plant shall be converted to fly ash bricks/ blocks / tile manufacturing units.

iii) To encourage conversion, thermal power plant should provide fly ash at nominal rate of Rs. 1 per ton and bear full transportation cost up to 300 km to such units.

a. At least 20% fly ash shall be made available to units manufacturing fly ash bricks, blocks and tiles on priority basis over other users at rate Rs. 1 per ton, even, thermal power plants achieve 100% ash utilization.

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ii. Road / flyover embankment construction.

This is one of the area that utilizes deposited ash of ash pond. Presently, about 3% of total ash produced is being utilized in this sector. This area envisages large quantity utilization of deposited ash but it is one time use till the road project construction is over.

To maximize ash utilization in this area, MoEF&CC has given necessary directives to thermal power plants and construction agency/ organization undertake construction of road/ fly over embankment through its gazette notification dated 25-01-2016, which are as given below:

a. Mandatory use of ash in road embankment/ fly over embankment construction within 300 km radius of coal/ lignite based thermal power plant.

b. Power plant to bear transportation cost of ash up to radius of 100 km and beyond radius of 100 km to 300 km shall bear equally between fly ash users and power plant.

c. Coal based power plant to bear entire cost of transportation of ash up to radius of 300 km in asset creation program of Government involving road construction projects under PMGSY, construction of building, roads, dams and embankments.

It is expected that use of ash in this sector will increase further.

iii. Development of low-lying areas.

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Development of low lying area with ash is one of the area where ash is being used mostly by thermal power plants in the vicinity. Presently about 11% of total ash produced is being utilized in this segment. This is also the area wherein mostly pond ash is used so that no fugitive dust emission during the ash filling activities.

For maximizing ash utilisation in this segment, MoEF&CC through its gazette notification dated 03-11-2009 given directives that " No agency, person or organization shall within a radius of three hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low-lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with the specifications and guidelines laid down by the authorities". In the revised directive, the distance has been increased from 100 km to 300 km and therefore, ash utilization will increase in this segment.

iv. Reclamation of abandoned mine voids

Ash is being used in reclamation of abandoned coal mine voids by many pithead thermal power stations. This is one of areas where large quantity of ash produced by pithead and remotely located power plants can be utilized on sustainable basis. Huge size of pits developed due to coal mining can be converted in to developed land for afforestation and other useful purposes. However, present utilization is limited to about 6% only.
The provisions in the MoEF&CC gazette notification dated 03-11-2009 stipulate that atleast 25% ash can be mixed with Overburden material for filling in the coal mines and other mines of mineral and metals. Mixing of fly ash along with over burden material and filling in operating coal mine is not being accepted by Coal India Limited (CIL) and Ministry of Coal (MoC) due to mine safety issue. However, CIL and MoC are allowing ash back filling in abandoned mine voids.

In order to identify the abandoned coal mine voids so that same will be given to thermal power plant for backfilling with ash, a task force having members from various stake holders has been constituted by Ministry of Power to identify the abandoned coal mine voids and other mines mineral and metals. The identified mine voids will be allocated to thermal power plants for taking up ash backfilling. CPCB has also formulated the guidelines/ Standard Operating Procedure (SOP) so that ash filling will be carried out in environment friendly manner by thermal power plants. This will help to achieve 100% ash utilization by pithead power plants.

v. Ash utilisation as soil conditioner in Agriculture

Fly ash is used as soil conditioner in agriculture. Present use in this segment is limited to 1% only. Amendment fly ash notification dated 25-01-2016 prescribes that the Ministry of Agriculture may consider the promotion of ash utilisation in agriculture as soil conditioner. This will help to enhance fly ash utilization.

3. **Finalisation of action plan as well as time frame to achieve 100% fly ash utilisation by Thermal Power Plants**. The Committee has recommended a period of 1 year to achieve 100 % utilization for non-compliant coal based thermal power plants having fly ash utilization more than 85% and a period of maximum 2 years may be given to achieve 100% fly ash utilization for non-compliant TPPs having fly ash utilization below 85%. Details of TPP wise action plan are as under:

Table: Status of Action Plan submitted by non-compliant Thermal Power Plants to achieve 100% fly ash utilisation

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S.N.	Name of TPS	Installed capacity	% Fly ash utilisation		Time frame to achieve 100% fly ash utilisation		Remarks
			2017-18	2018-19	2019-20	2020-21	
1	Dr. N.T.R (Vijawada), APGENCO (Andhra Pradesh)	1760.00	90.7	103	104		Action plan annexed
2	KOTHAGUDEM-VI, TSPGCL (Telangana)	500.00	91.8	4	56.04	100	Action plan annexed
3	MUNDRA TPS, APL (Gujarat)	4620.00	99.4	100	--	--	Already achieved 100% fly ash utilisation
4	BARKHERA, BEPL (UP)	90.00	99.8	100	--	--	Already achieved 100% fly ash utilisation
5	KHAMBER KHERA, BEPL (UP)	90.00	99.9	100	--	--	Already achieved 100% fly ash utilisation
6	KUNDARKI, BEPL (UP)	90.00	99.9	100	--	--	Already achieved 100% fly ash utilisation
7	MAQSOODAPUR, BEPL (UP)	90.00	99.9	100	--	--	Already achieved 100% fly ash utilisation
8	UTRAULA, BEPL (UP)	90.00	99.9	100	--	--	Already achieved 100% fly ash utilisation
9	MUTIARA, COASTAL ENERGEN PVT. LTD (Tamil Nadu)	1200.00	99.4	100	100		Action plan annexed
10	D.P.P.S., DPL (West Bengal)	660.00	93.9	95.52			Not submitted
11	DHARIWAL INFRASTRUCTURE Ltd., Dhariwal Infrastructure Ltd. (Maharashtra)	600.00	91.0	90.33	100	100	Action plan annexed
12	GMR Chhattisgarh, GMR Chhattisgarh Energy LTD. (Chhattisgarh)	1370.00	90.1	78.48	100		Action Plan Annexed
13	VIJAYANAGAR, JSW Energy Limited (Karnataka)	860.00	95.6	100	100		Action Plan Annexed

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14	DERANG TPP, JINDAL INDIA THERMAL POWER LIMITED (Odisha)	1200.00	91.1	97	100		Action Plan Annexed
15	DANGAMAHUA CAPITIVE POWER PLANT, JINDAL STEEL AND POWER LIMITED (CHHATTISHGARH)	576.00	99.8	100	100		Action Plan Annexed
16	MCCP BANDHAKHAR, Maruti Clean Coal and Power Limited (Chhattisgarh)	300.00	93.6	100	100		Action Plan Annexed
17	NEYVELI-I EXPN, NLC LTD (Tamilnadu)	420.00	99.9	100	100		Action Plan Annexed
18	UNCHHPINDA R.K.M. POWERGEN PVT. LTD (PGCIL) Chhattisgarh)	1080.00	99.7	90	100		Action Plan Annexed
19	AMRAVATI TPS, RATTANINDIA POWER LTD. (Maharashtra)	1350.00	97.1	115	100		Action Plan Annexed
20	CUDDALORE, TAQA NEYVELLY POWER CO. PVT. LTD. (Tamil Nadu)	250.00	99.9	91			Action plan no submitted
21	HARDUAGANJ, U.P.R.V.U.N.L. (U.P.)	610.00	90.3	96	100		Action plan annexed
22	BAKRESWAR, W.B.P.D.C.L (W.B.)	1050.00	99.3	116	150		Action plan annexed
23	SAI WARDHA POWER LTD., WARORA, WPCL (Maharashtra)	540.00	99.6	91	--	--	Not operational during 2019-20
24	RAYALSEEMA, APGENCO (Andhra Pradesh)	1650.00	74.1	84	90	100	Action Plan submitted
25	SRI DAMODARAM SANJEEVAIAH, APPDCL (Andhra Pradesh)	1600.00	75.6	65	85	100	Action Plan submitted
26	TIRORA, ADANI POWE LTD. (Maharashtra)	3300.00	80.9	84	100	100	Action plan annexed
27	MUNDRA UMPP, CGPL (Gujarat) Tata	4000.00	80.2	100			100 % utilization achieved
28	BOKARO 'B', D.V.C. (Jharkhand)	710.00	84.4	36	100		Action plan annexed
29	DURGAPUR STEEL, D.V.C. (West Bengal)	1000.00	73.7	76	77	100	Action plan annexed
30	KODERMA, D.V.C. (Jharkhand)	1000.00	71.9	98.3	100		Action plan annexed

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31	UKAI, G.S.E.C.L. (Gujarat)	1110.00	75.8	82	85	100	Action plan annexed
32	WANAKBORI , G.S.E.C.L. (Gujarat)	1471.00	70.5	88.33	100		Action plan annexed
33	HISAR, H.P.G.C.L. (Haryana)	1200.00	84.8	60	100		Action plan annexed
34	MAHATMA GANDHI, JHPL (Haryana)	1320.00	76.4	89.06	100		Action plan annexed
35	O.P. Jindal Super TPP (Stage-I), JPL (Chhattisgarh)	1000.00	75.6	102	100		Action plan annexed
36	O.P. Jindal Super TPP (Stage-II), JPL Chhattisgarh)	2400.00	77.1	102	100		Action plan annexed
37	KMPCL (AKALTARA), KSK Mahanadi Power Company Limited (Chhattisgarh)	1800.00	88.4	70	95.91	100	Action plan annexed
38	LALITPUR, LALITPUR POWER GENERATION COMPANY LIMITED (UP)	1980.00	85.8	104	108		Action plan annexed
39	SANJAY GANDHI, M.P.P.G.C.L. (M.P.)	1340.00	73.3	71	100		Action plan annexed
40	BHUSAWAL, M.S.P.G.C.L. (Maharashtra)	1210.00	85.5	95	95		Action Plan not submitted
41	LEHRA MOHABAT, P.S.P.C.L. (Punjab)	920.00	71.4	71	92.5	100	Action plan annexed
42	PRAYAGRAJ TPS, PRAYAGRAJ POWER GENERATION COPMANY LTD. (U.P)	1980.00	81.0	93	100		Action plan annexed
43	ROSA PHASE-I, RPSCL (U.P.)	1200.00	75.5	97.05	77		Action Plan not submitted
44	RATIZA TPS, SPECTRUM COAL & POWER LTD (Chhattisgarh)	100.00	86.7	77	100		Action plan annexed
45	JOJOBERA, T.P. CO. (Jharkhand)	547.50	87.8	92.77	100		Action plan annexed
46	METTUR-II, T.N.G & D Corporation (Tamil Nadu)	600.00	74.0	80	100		Action plan annexed
47	KAKATIA (Stage-I), T.S.G.E.N.C.O (Telangana)	500.00	78.3	101	100		Action plan annexed
48	RAIGARH TPP, TRN ENERGY Pvt. Ltd. (Chhattisgarh)	600.00	76.2	92	93		Action plan not submitted
49	TENUGHAT TPS, TENUGHAT VIDHYUT NIGAM LIMITED	420.00	89.0				Action plan not submitted

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	(Jharkhand)						
50	M/s TALWANDI SABO POWER LTD, TALWANDI SABO POWER LTD (PUNJAB)	1980.00	72.6	109	10		Action plan annexed
51	INDIRA GANDHI, APCPL (Haryana)	1500.00	68.9	103	100		Action plan annexed
52	BALLARI, K.P.C.L. (Karnataka)	1700.00	50	73	99	108	Action plan annexed
53	RAICHUR, K.P.C.L. (Karnataka)	1720.00	57	70	87	100	Action plan annexed
54	AMARKANTAK, M.P.P.G.C.L. (M.P.)	210.00	56.5	66	100		Action plan annexed
55	SHREE SINGAJI, M.P.P.G.C.L. (M.P.)	1200.00	60.3	16	70-80	100	Action plan annexed
56	JHABUA POWER LIMITED (SEIONI TPP), M/S JHABUA POWER LIMITED	600.00	66.1	70	80	100	Action plan annexed
57	VALLUR, NTPC TAMIL NADU ENERGY COPMANY LTD {(NTECL) (Tamil Nadu)}	1500.00	65.0	67	81	100	Action plan annexed
58	FARAKKA, NTPC LTD. (W.B.)	2100.00	52.9	76.97	84	100	Action plan annexed
59	MOUDA TPS, NTPC LTD.	2100.00	699.9		93	100	Action plan annexed
60	SOLAPUR, NTPC LTD. (Maharashtra)	660.00	59.8	100			Already achieved
61	KUDGI, NTPC LTD. (Karnataka)	1600.00	50.0	62.23	77	100	Action plan annexed
62	IB VALLEY, O.P.G.C.L. (Odisha)	420.00	55.4	33	70	100	Action plan annexed
63	TUTICORIN, T.N.G & D Corporation (Tamil Nadu)	1050.00	59.5	100	100	100	Action plan annexed
64	KAKATIA (Stage-II), T.S.G.E.N.C.O. (Telengana)	600.00	62.0	101	100		Action plan annexed
65	PARICHHA, U.P.R.V.U.N.L. (U.P.)	1140.00	57.4	87.53	96	100	Action plan annexed
66	SAGARDIGHI, W.B.P.D.C.L. (W.B.)	1600.00	65.5	93	85	100	Action plan annexed
67	RAMAGUNDAM'B', TSPGCL (Telengana)	62.50	27.8	126	100		Action plan annexed
68	NABINAGAR, Bharatiya Rail Bijlee Company Limited (Bihar)	500.00	28.2	34	92	100	Action plan annexed

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69	KOTHAGUDEM V, TSPGCL (Telengana)	500.00	0.0	20	56	100	Action plan annexed
70	MARWA TENDUBHATA, C.S.P.G.C.L (Chhattisgarh)	1000.00	33.9	24	100	100	Action plan annexed
71	DSPM, C.S.P.G.C.L (Chhattisgarh)	500.00	20.4	32	64	100	Action plan annexed
72	KORBA (WEST), C.S.P.G.C.L (Chhattisgarh)	1340.00	16.0	50	73	100	Action plan annexed
73	DURGAPUR, D.V.C. (West Bengal)	210.00	4.4	7.26	23	100	Action plan annexed
74	RAGHUNATHPUR, D.V.C. (West Bengal)	1200.00	2.3	9.76	23		Action plan not submitted
75	Vizag TPS, Hinduja National Power Corporation Limited (Andhra Pradesh)	1040.00	13.0	256	69	100	Action plan annexed
76	MUZAFFARPUR TPS, KANTI BIJLEE UTPADAN NIGAM LIMITED (Bihar)	610.00	34	40	72	100	Action plan annexed
77	AMARKANTAK TPS, LANCO AMARKANTAK POWER LIMITED (Chhattisgarh)	600.00	43.4	50.5	100		Action plan annexed
78	SATPURA, M.P.P.G.C.L. Sarni (M.P.)	1330.00	28.8	16.78	100		Action plan annexed
79	CHANDRAPUR, M.P.P.G.C.L. (Maharashtra)	2920.00	26.3	36	58	100	Action plan annexed
80	KHAPARKHEDA, M.P.P.G.C.L. (Maharashtra)	1340.00	35.5	30.52			Action plan not submitted
81	KORADI, M.P.P.G.C.L. (Maharashtra)	2600.00	13.1	14.05			Action plan not submitted
82	PARAS, M.P.P.G.C.L. (Maharashtra)	500.00	38.3	43	100		Action plan annexed
83	ANUPPUR TPS, M.P.P.G.C.L. (Maharashtra)	1200.00	48.6				Action Plan not submitted
84	SINGRAULI, NTPC LTD. (U.P.)	2000.00	30.2	35	50	100	Action plan annexed
85	RIHAND, NTPC LTD. (U.P.)	3000.00	31.1	31	60.74	100	
86	KORBA, NTPC (Chhattisgarh)	2600.00	43.0	50.19	65	100	Action plan annexed
87	VINDHYACHAL, NTPC LTD. (M.P.)	4760.00	24.6	51	51	100	Action plan annexed
88	SIPAT, NTPC (Chhattisgarh)	2980.00	18.6	40.44	69	100	Action plan annexed

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89	KAHALGAON, NTPC LTD. (Bihar)	2340.00	45.8	46.09	85	100	Action plan annexed
90	BARH SUPER TPS, NTPC LTD. (Bihar)	1320.00	39.1	50	77	100	Action plan annexed
91	TALCHAR(KAN), NTPC LTD. (Odisha).	3000.00	47.5	46.96	80	100	Action plan annexed
92	BONGAIGAON, NTPC LTD. (Assam)	250.00	4.5	30	74	100	Action plan annexed
93	YERAMARUS TPS, RAICHUR POWER CORPORATION LIMITED (Karnataka)	1600.00	0	32	70	100	Action plan annexed
94	SEMBCORP ENERGY INDIA Ltd., SEMBCORP ENERGY INDIA Ltd. (Formerly Thermal Powertech Corporation India Ltd) (Andhra Pradesh)	1320.00	30.8	75	80	100	Action plan annexed
95	SASAN UMPP, RELIANCE POWER LIMITED (Madhya Pradesh)	3960.00	29.6	30	70	100	Action plan annexed
96	METTUR-I, T.N.G & d Corporation (Tamil Nadu)	840.00	41.1				Action plan not submitted
97	NORTH CHENAI-I, T.N.G & d Corporation (Tamil Nadu)	630.00	39.7	66	96.6 (one quarter)		Action plan not submitted
98	NORTH CHENAI-II, T.N.G & d Corporation (Tamil Nadu)	1200.00	40.1	63.69	98.77(one quarter)		Action plan not submitted
99	KOTHAGUDEM (Stage I to IV), T.S.P.G.C.L (Telangana)	720.00	39.5				Action plan not submitted
100	ANPARA 'A' & 'B', U.P.R.V.U.N.L. (U.P.)	2630.00	1.6	3.18	100		Action plan annexed
101	OBRA, U.P.R.V.U.N.L. (U.P.)	1000.00	20.7	12.77	10	100	Action plan annexed
102	Essar Power MP Ltd.	1200	61	86	83	100	Action plan annexed
103	Vedanta Ltd. Jharsuguda	2400	108	120	100		Action plan annexed
104	Vedanta Ltd. Jharsuguda	1215	114	112	100		Action plan annexed
105	Balco, Balco Nagar	1740	60	102	83	93	Not submitted
106	NALCO, Angul, Odisha	1200	75	75	75	100	Action plan annexed
107	Chandrapura Thermal Power Plant, DVC	630	140	97	100		Action plan annexed

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108	Durgapur Thermal Power Station, DVC	210	4.5	8.5	74	100	Action Plan annexed
109	Mejia Thermal Power Plant, DVC	2340	106	74	97	100	Action Plan annexed
110	Raghunathpur Thermal Power Plant, DVC	1200	2.52	9.76	23	100	Action Plan annexed
111	Anpara C, Lanco Power Sonebhadra	1200	6.9	22%	54	100	Action Plan annexed
112	Adhunik Power Natural Resources, Jharkhand	540	98	99	100		Action Plan annexed
113	D B Power Ltd	1200	71.6	72	100		Action Plan annexed
114	Korba East	240	47	100	80	100	Action Plan annexed
115	Kota Super Thermal Power Station, Kota	1240	104	99.4	92	100	Action Plan annexed
116	Nabha Power Ltd, Rajpura	1400	111	91	100		Action Plan annexed
117	TPS Parli	1170	64.52	83.73	100		Action Plan annexed
118	SKS Power Generation, Chhattisgarh	1200	32	70	100		Action Plan annexed

It was decided that action plan received from TPPs would be forwarded to Central Pollution Control Board and Central Electricity Authority. Both agencies should review status quarterly and annual basis. Quarterly status should be forwarded to MoEF&CC. CPCB should take appropriate action against the non-compliant TPPs, which have not submitted the action plan/revised action plan so far. It was also decided that all pollution control measures (air and water) should be adopted by the TPPs and user agencies while handling, transportation and disposal of fly ash. CPCB may issue appropriate directions in this regard.

4. **Draft proposal submitted by CPCB for determining environmental compensation (EC)**

CPCB has submitted a draft proposal for determining environmental compensation (EC), which is annexed as **Annexure – II**. The committee recommended that environmental compensation should be imposed on non-pit head thermal power plant only as pit head plant has some genuine issues of massive fly ash generation and unavailability of user agencies nearby the Power Plant. The most viable solution for pit head plant is utilisation of ash in abandoned coal mines. But declaration of coal mines as abandoned is the major issue. Coal Ministry may be requested to expedite the allocation of abandoned mines especially for 100% fly ash utilisation. It was recommended that CPCB/SPCB should ensure that collected EC should be mobilised for utilisation of ash in the respective TPPs as far as possible.

5. **Exclusion of ash dyke raising of ash pond as fly ash utilisation from action plan for 100 % fly ash utilisation.**

Keeping in view of recent incidents of ash dyke breach at Vidhyanchal TPP and Essar TPP in Singrauli area, it was discussed that ash dyke raising of ash pond should be considered as fly ash utilisation during initial 5 years. Thereafter, TPPs can use ash for strengthening of

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ash dyke as per engineering requirement but can claim only a maximum of 5-7% of fly ash generation as utilisation. This will prevent ash dumping at ash pond.

With regards to breach sites at Vidhyanchal TPP and Essar TPP in Singrauli area, the Committee decided that CPCB should direct MP Pollution Control Board to ensure effective restoration/remediation of affected sites urgently. Action Taken report should be furnished to this Ministry within a week.

6. **Utilisation of unutilized accumulated fly ash (pond ash)**

For non-pit head plant, the balance unutilized fly ash accumulated (the difference between the generation and the utilization target) shall be utilized progressively over next three years in addition to 100% utilization of current generation of fly ash w.e.f. April 2021.

With regard to pit head plant, the balance unutilized fly ash accumulated (the difference between the generation and the utilization target) shall be utilized progressively over next four years in addition to 100% utilization of current generation of fly ash w.e.f. April 2021.

7. **Review of action taken report on recommendations of Expert Committee for enhanced utilisation of fly ash.**

An Expert Committee was constituted by Niti Aayog on 12.06.2018 for developing a focused strategy for best utilisation of fly ash to manufacture end products. The recommendations of the Expert Committee for enhanced utilization of fly ash in the various sectors i.e. mines, roads, cement industry, bricks, etc and its implementation status are as under:

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(a) Following are the recommendations of the Expert Committee pertaining to Ministry of Power

i. The Task Force constituted vide O.M. dated 29th September, 2011 of Ministry of Power comprising representatives of CIMFR, CMPDI, DGMS, etc. for taking up pilot project for utilisation of fly ash in operational mines should be revitalized and additional members representing Ministry of Mines and State Pollution Control Boards should be included in the aforesaid Task Force. The Task Force could meet quarterly to review and update the list of operational mines or abandoned mines/quarries. Backfilling should be started on the existing list of abandoned mines/quarries that have already been examined and recommended by the Task Force.

Action Taken:
MoP vide letter dated 14.03.2019 and 10.04.2019 has constituted the Task Force to review and recommend a list of abandoneed mines/quarries in the country for mine backfilling purpose. NTPC Ltd. has been made the Convenor of the Task Force. MoP vide letter dated 19.08.2019 also forwarded the list of Mines as identified by task force, giving preference particularly for pit head plants.

ii. Tender/auction for sale of fly ash should be done by TPPs initially for end user/industry and not for traders. If fly ash is not taken by the end user/industry, then it could be given to traders. TPPs should also consider entering into longer term contracts with end users.

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iii. TPPs may explore the possibility that once a tender for utilisation of fly ash is allotted to a company, any unit /plant of the same company should be allowed to purchase and utilise the fly ash and TPPs can also directly raise the invoice to such Unit/Plant.

iv. TPPs should give incentive to entities which can (through R&D) come up with fly ash products with ash content of at least 75% and established sustainable application of those fly ash products in the industry. The incentive could be given from the money available with the TPPs from auctioning of fly ash.

v. Creation of fly ash parks/hubs on public-private-partnership mode. Such parks will act as facilities for enabling quality control of fly ash made products, generate employment and also act as models which will promote use of innovative fly ash products which can be replicated at other locations.

Action taken:
MoP vide letter dated 26.03.2019 requested CEA to circulate and give wider publicity /circulate these recommendations of the Expert Committee to all thermal power plants/State Gencos for necessary action. Accordingly, CEA vide letter dated 17.07.2019 has circulated the same to all power utilities for taking appropriate action on these recommendations of Expert Committee.

In the Joint Committee Meeting held on 11.12.2019, it was decided that Ministry of Power should follow up with State Government for necessary compliance.

vi. Ministry of Power should come up with incentives/awards for TPPs that come up with innovations in fly ash disposal keeping all the environment and pollution norms in consideration.

Action taken:

The issue is under consideration in Ministry of Power/CEA.

(b) Following are the recommendations of the Expert Committee pertaining to Ministry of Coal

i. Ministry of Coal should identify list of abandoned mines for utilisation of fly ash in mines backfilling.

Action taken:

A list of seven abandoned mines has been communicated by Ministry of Coal for utilisation of fly ash in mines backfilling. Details are as under:
SECL: Bisrampur OC and Dugga OC
MCL: South Balanda Mine
NCL: Gorbi OC
WCL: Naveen Kunada OC; Telwasa OC & Dhorwasa OC

ii. The Task Force constituted vide O.M. dated 29th September, 2011 of Ministry of Power comprising representatives of CIMFR, CMPDI, DGMS, etc. for taking up pilot project for

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utilisation of fly ash in operational mines should be revitalized and additional members representing Ministry of Mines and State Pollution Control Boards should be included in the aforesaid Task Force. The Task Force could meet quarterly to review and update the list of operational mines or abandoned mines/quarries. Backfilling should be started on the existing list of abandoned mines/quarries that have already been examined and recommended by the Task Force.

iii. Ministry of Coal should expedite the permission of Jingurda mine of NCL, Gevra & Dipika Mines of SECL, Kaniha mine of MCL, and OCP-1 & RG-1 of SCCL for fly ash backfilling/stowing.

Action taken:

Ministry of Coal has informed that all the above mentioned mines at S.N. iii are not declared as abandoned mines and the same are operation mines.

iv. It is reported that fly ash is being used for mines backfilling in some mines. Mining Companies should share their experiences of mines backfilling to enhance fly ash utilisation in this sector.

Action taken report is awaited on the above recommendation at sl. no. iv.

(c) Following are the recommendations of the Expert Committee pertaining to NTPC

i. **All Thermal Power Plants (TPPs) should comply with the provision in the fly ash notification of giving subsidies on the cost of transportation to brick manufacturing units so that utilization of fly ash could be further enhanced**.

Action taken:

NTPC informed that with regards to bearing/ subsidies on the cost of transportation to brick manufacturing units, subsidy of Rs. 150/- per MT towards transportation cost of fly ash for brick manufacturers in compliance of OSPCB directive is being given at Talcher Th, Talcher Kaniha. ***Fly ash Park has been set up at Varanasi and Rewa****. Fly ash is being made available to users. Such depot are being set up at Bhubaneshwar and Pune. Rate contract for supply of fly ash to fly ash brick manufacturers has been awarded by the Vindhyachal TPP.*

ii. **Tender/auction for sale of fly ash should be done by TPPs initially for end user/industry and not for traders. If fly ash is not taken by the end user/industry, then it could be given to the traders. TPPs should also have to consider entering into longer term contracts with the end users**.

Action taken:

NTPC informed that NTPC's Ash Policy has been modified in line with the recommendations of Expert Committee and is being implemented at stations. Process has been initiated for charging a nominal amount Rs. 1/- per ton to fly ash brick/

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blocks/ tile manufacturers from 12 stations where fly ash is being issued on price. It is expected to start from Oct'19 onward progressively. Long term tie up with end users are being tied up. At - Dadri, Unchahar, Farakka, Kahalgaon, Tanda and Khargone have already signed long term MoU. It is in process at Rihand/ Vindhyachal, Barh.

iii. **TPPs may explore the possibility that once a tender for utilisation of fly ash is allotted to a company, any unit /plant of the same company should be allowed to purchase and utilise the fly ash, and TPPs can also directly raise the invoice to such Unit/Plant.**

Action taken:

NTPC informed that necessary provisions have been made in Ash Utilization policy by NTPC to allow any unit / plant of same company who have been issued contract to for fly ash, at same price along with requisite invoice.

iv. **NTPC and NHAI should come out with suitable guidelines for payment of transportation cost.**

Action taken:

NTPC informed that presently, payment is being made to NHAI based on the State SoR rates. CERC order dated 05-11-2018 stipulates that actual additional expenditure incurred by NTPC towards transportation of ash in terms of MoEF & CC notification is admissible under "Change in Law" as additional O&M expenditure subject to (a) Award of fly ash transportation contract through a transparent competitive bidding procedure; (b) Alternatively, the schedule rates of the respective State Governments. Efforts are being made to supply ash for road projects through transparent bidding process.

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v. **TPPs should give incentive to entities which can (through R&D) come up with fly ash products with ash content of at least 75% and established sustainable application of those fly ash products in the industry. The incentive could be given from the money available with the TPPs from auctioning of fly ash.**
Action taken:

NTPC informed that necessary provision has been made in Ash Utilization policy of NTPC.

vi. **Fly Ash based Sintered Light Weight Aggregates (SLWA) manufacturing technology, which is approved by BIS may be replicated in other TPPs in a time bound manner.**

Action taken:

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NTPC informed that NTPC is setting up LWA plant at Sipat and such activity will be promoted at other stations based on the success of the plant and product. In addition to this, to promote fly ash based nano-concrete aggregate (light weight aggregate), a demonstration building is under construction at Simahdri so as to assess its performance.

vii. **Alternate mode of transportation such as BTAP (Bogie Tank for Alumina Powder) wagons may be used for bulk transportation of ash through rail for distant users and transportation through Barge.**

Action taken:

NTPC informed that NTPC has placed order to M/s Texmaco Rail & Engineering Ltd, Kolkata for manufacture and supply of three BTAP rakes. NTPC has also signed an agreement with Railway Administration for bulk transportation of fly ash from its remotely located Rihand and Vindhyachal TPS to the cement plants of Satna/ Maihar/ Katni belt. Signing of MoU with Cement Industries through BTAP is in process. Rail loading facilities for bulk transportation already existing at Rihand, Kahalgaon & Ramagundam. It is in progress at Sipat, Simhadri, Mouda, Barh & Vindhyachal and planned at all upcoming stations.

viii. **Awareness needs to be created among building construction agencies (such as PWD, CPWD, NBCC, etc.) for the use of Bottom Ash as replacement of Fine Aggregate (sand) in Cement Concrete.**

Action taken:

NTPC informed that for use of bottom ash in cement concrete, a R&D project has been carried out in association National Council for Cement & Building Material (NCBM), Ballabhgarh. Recommendation of NCBM has been sent to BIS for issuing code.

(d) Following are the recommendations of the Expert Committee pertaining to Ministry of Central Pollution Control Board

i. CPCB should come out with the guidelines for reclamation of low lying area and abandoned mines.

ii. SPCBs should direct all TPPs in their respective States to link with the CEA's Mobile Phone App.

Action taken:

CPCB informed that as per status informed by NTPC who is providing technical inputs with respect to linking the plan data to the App, 170 plants are linked with the App, of which 120 plants are regularly updating the data. The Committee recommended that CPCB shall initiate action against coal based thermal power plants, which have not been linked with the App.

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iii. CPCB should come out with guidelines based on Odisha SPCB experience for reclamation of low lying areas and abandoned quarries with ash.

Action taken:
CPCB has issued guidelines for disposal/utilisation of flyash for reclamation of Low Lying Areas and in stowing of Abandoned mines/Quarries.

(e) Following are the recommendations of the Expert Committee pertaining to Ministry of Central Electricity Authority

i. CEA's app should have additional features like quarterly trends of production & utilization of fly ash.
ii. Public Awareness Campaign should be undertaken for CEA's app in the media (newspaper, etc.) for public dissemination at the level of generators and users.

Action taken:
Action taken report is awaited on the above recommendations at S.N. i & ii. The Joint Committee has recommended that CEA shall include an 'alert' notification in the feature of 'Ash track' for quarterly and annual non-compliance by the TPPs.

(f) Following are the recommendations of the Expert Committee pertaining to Ministry of National Highway Authority of India

i. NHAI should compulsorily use fly ash in their projects. They should verify their project at regular intervals regarding utilisation of fly ash in their projects.
ii. NHAI should approach to the nearest TPPs with respect to road project for supply of ash for road construction.
iii. NHAI and NTPC should come out with suitable guidelines for payment of transportation cost. State SOR or CPWD SOR could be the norms that could be used for fixing the costs.

Action taken:
NHAI has informed that status of ash requirement and utilisation of NHAI is as under:

FY	**Ash required**	**Ash Utilised**
2019-20	34.6 lakh ton	12.12 Lakh Ton
2018-19	0.42 Lakh ton	6.70 Lakh ton

(g) Following are the recommendations of the Expert Committee pertaining to Ministry of Environment, Forest and Climate Change:

i. MoEF&CC should revisit the conditions stipulated in the existing environmental clearance of Thermal Power Plants for fly ash utilisation and modify them in consonance with the fly ash notification.
ii. Appropriate conditions need to be incorporated in the environmental clearance for utilisation of fly ash in mines backfilling/stowing.

Action taken:

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MoEF&CC vide OM dated 28th August, 2019 has issued amendment in the EC's conditions of Thermal Power Plants and Coal Mines in line with the fly ash notification, 1999 as amended from time to time.

iii. Fly ash manufacturing units should be given minimum 20% fly ash even if the TPP has achieved 100% utilisation.

iv. District Level Monitoring committee under the Chairmanship of District Magistrate may be formed for effective monitoring for implementation of fly ash notification.

v. Red clay brick kilns located within 300 km need to be converted into fly ash based brick manufacturing unit. One-year time frame should be given for conversion of such brick units. To encourage the conversion, TPPs should provide fly ash free of cost and bear the full transportation charges upto 300 km to such units. To encourage the conversion, capital subsidy to the brick units for converting to fly ash may be provided by the Ministry of Power / MSME or a long-term, low-interest scheme may be provided by Banks/SIDBI. The money available with TPPs from auctioning of fly ash should be used to give transportation subsidy.

Action taken:

Draft amendment to fly ash notification has been issued on 25.02.2019. Around 35,000 comments/suggestions have been received from the various stake holders on the draft notification. Out of these, around 33,000 comments/suggestions have been received stating objections/ opposing the ban on red clay brick kilns. MoEF&CC is examining the matter.

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(h) Following is the recommendations of the Expert Committee pertaining to Ministry of Housing and Urban Affair:

i. State Governments should offer incentive of additional 5 % FAR for the building construction projects that are not using red clay bricks and only using fly ash based building products

Action taken:

MoHUA has issued advisory vide OM dated 18.14.2019 to all Urban Development Department in States and UTs.

(i) Following is the recommendations of the Expert Committee pertaining to Ministry of HRD:

i. Ministry of HRD may be requested to include use of fly ash in the curriculum of civil engineering and architecture degree.

Action taken:

All India Council for Technical Education vide letter dated 26.04.2019 has informed that the matter is referred to AICTE all India Board of Under Graduate Study in Engineering and Technology for its consideration.

(j) Following is the recommendations of the Expert Committee pertaining to BIS:

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i. BIS should make relevant standards for use of fly ash in geo-polymer concrete and extend the use of Bottom Ash as replacement of Fine Aggregate (sand) for concrete beyond lean concrete in IS 383:2016, after considering the report of R&D being carried out at NCB, Ballabgarh.

ii. The BIS should examine the request of the cement industry to increase fly ash use to 45% and take a suitable decision after considering the report of R&D being carried out at NCB, Ballabgarh.

Action taken report is awaited.

(k) Following is the recommendations of the Expert Committee pertaining to IRC:

i. Use of fly ash in geo-polymer products can be commercialised after notification of relevant standards by IRC. Awareness needs to be created among road making agencies such as NHAI, PWD, Border Road Organisation, etc.

Action taken report is awaited.

Encl.:

1. Copy of minutes of 1st meeting of Joint Committee held on 18th April, 2019 is annexed as annexure.
2. Copy of minutes of 2nd meeting of Joint Committee held from 17th to 18th July, 2019 is annexed as annexure.
3. Copy of minutes of 3rd meeting of Joint Committee held on 30th September, 2019 is annexed as annexure.
4. Copy of minutes of 4th meeting of Joint Committee held on 11th December, 2019 is annexed as annexure.

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Annexure - II

Mechanism for assessment of Environmental Compensation for non-compliance of targeted flyash utilization by thermal power plants

1. Provisions of Flyash Notification

Ministry of Environment, Forest & Climate Change (MoEF&CC) issued directions vide notifications dated 14th September, 1999, 27th August, 2003, and 3rd November, 2009 respectively for achieving the target of 100% fly ash utilization by all Coal/Lignite based thermal power stations in the country in a progressive manner.

1.1 1999 notification

As per the notification para 2

Sub-para (2) : Every coal or lignite based thermal power plant commissioned subject to environmental clearance conditions stipulating the submission of an action plan for full utilisation of fly ash shall, within a period of **nine years** from the publication of this notification, phase out the dumping and disposal of fly ash on land in accordance with the plan. Such an action plan shall provide for thirty per cent of the fly ash utilisation, within three years from the publication of this notification with further increase in utilisation by atleast ten per cent points every year progressively for the next six years to enable utilisation of the entire fly ash generated in the power plant atleast by the end of ninth year. Progress in this regard shall be reviewed after five years.

(3) Every coal or lignite based thermal power plant not covered by para (2) above shall, within a period of **fifteen years** from the date of publication of this notification, phase out the utilisation of fly ash in accordance with an action plan to be drawn up by the power plants. Such action plan shall provide for twenty per cent of fly ash utilisation within three years from the date of publication of this notification, with further increase in utilisation every year progressively for the next twelve years to enable utilisation of the entire fly ash generated in the power plant.

1.2 2009 notification (2nd amendment to principal notification)

Thermal Power Stations in operation before the date of 3rd November, 2009 Notification were to necessarily achieve the target of fly ash utilization in successive 5 years as: at least 50% by 1st year; 60% by 2nd year ; 75% by 3rd year; 90% by 4th year and 100% by 5th year from the issue of this notification.

The unutilised flyash in relation to the target during a year, if any shall be utilised within next two years in addition the targets stipulated for those years and balance unutilised flyash accumulated during first five years (the difference between the generation and the utilisation targets) shall be utilised progressively in next five years in addition to 100% utilisation of current generation of flyash i.e by 2019

2.3 New Thermal Power Stations coming into operation after the MoEF's notification (i.e. 3rd November, 2009) were to necessarily achieve the target of fly ash utilization as: atleast

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50% by the 1st year, 70% by 2nd year , 90% by 3rd year and 100% by 4th year from their date of commissioning.

The unutilised flyash in relation to the target during a year, if any shall be utilised within next two years in addition the targets stipulated for these years and balance unutilised flyash accumulated during first four years (the difference between the generation and the utilisation targets) shall be utilised progressively in next five years in addition to 100% utilisation of current generation of flyash . i.e. by 2018.

Further vide Notification No. S.O 254(E) dated 27th January 2016, para (5) "coal or lignite based thermal power plants were directed to comply with the provisions in the said notification in addition to 100 % utilization of fly ash generated by them before 31st December, 2017".

2. Joint Committee constituted by MoEF & CC

A Joint committee has been constituted by MoEF & CC in pursuance of the direction of Hon'ble NGT dated 20.11.2018 in OA No. 117 of 2014 in the matter of shantanu Sharma Vs Union of India and 102 of 2014 in the matter of Sandplast (India) Ltd. Vs Union of India & Ors to discuss action plan to achieve 100 % flyash utilisation by thermal power plants. In its meeting held on 18th April, 2019 the said Joint committee decided that "CPCB will come out the mechanism to determine the quantum of penalty based on (per ton or percentage basis) to be paid for violation".

3. Determination of Environmental Compensation (EC)

3.1 CPCB on the direction of the Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors has formulated following formula for levying the environmental compensation penalty due to non-compliance of the environmental standards / violation of any directions by industries;

EC = PI x Rx N x F x LF
= ₹ 30000per day (80x250x1.5) x N x LF
EC = Environmental compensation/penalty (₹);
PI = Pollution Index of industrial sector (80 for red category of industries)
R = Rs in per day (₹ 250)
N = Number of days of violations.
F = Scale of operation of industrial sector, small 0.5, medium 1.0 and large 1.5
LF = Location factor,1.5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.2 In light of the above environmental compensation (₹30000 per dayx330 days per year= ₹9900000, say 1 crore per year), it is proposed that , EC may be imposed based on annual basis for compliance of flyash notification after December 31st, 2017 as below:

3.2.1 **EC for plants commissioned before 3.11.2009**

A : EC for year 2018 and 2019

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EC = ₹ 1 crore/year x C x P x LF

C : Capacity factor 1 for 500 MW and MW/500 for other capacity
P : Non-compliance during the year i.e. (100- % utilisation during the year /100)
LF = Location factor, 1.5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

B: Annual EC for year 2020 onwards

EC = ₹ 1 crore/year x C x P' x LF

P' : Overall non-compliance in terms of multiple factor of annual generation i.e. total accumulated flyash at the end of year divided by annual flyash generation at full capacity
LF : Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.2.2 **EC for plants commissioned after 3.11.2009**

A : EC for year 2018

EC = ₹ 1 crore/year x C x P x LF

C : Capacity factor 1 for 500 MW and MW/500 for other capacity
P : Non-compliance during the year i.e. (100- % utilisation during the year /100)
LF: Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

B: Annual EC for year 2019 onwards

EC = ₹ 1 crore/year x C x P' x LF

P' : Overall non-compliance in terms of multiple factor of annual generation i.e. total accumulated flyash at the end of year divided by annual flyash generation at full capacity
LF : Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.3 Temporary storage upto 90 days of generation of flyash shall be allowed and no environmental compensation will be imposed for accumulated quantity.

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Annexure

Action Plan submitted by non-compliant Thermal Power Plants to achieve 100% fly ash utilisation

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S.N 1

FORMAT FOR FLY ASH UTILISATION ACTION PLAN

1. Name of the Unit: Dr.Narla Tata Rao Thermal Power Station

2. Power Generation Capacity: 1760MW (6x210 MW & 1x500MW)

3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

	2017-18	2018-19
Ash generation	3861149	4114930
Ash utilisation	3502544	4275210

			2017-18				
S.NO.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2017-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	1053626	858112.954	809938.6458	1139471	3861149
B	Ash Utilisation	MT	840794	775610	818362.78	1067777	3502544
i)	Brick Manufacturing	MT	395106	330584	451424	572588	1749702
ii)	Ready Mix Concrete	MT	13192	12516	21535	30129	77372
iii)	Low Lying area filling/ Area Development	MT	173045	132504	77599	134310	517458
iv)	Road Construction	MT	1573	14367	0	0	15940
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (Cement & A.C.Sheet manufacturing industries)	MT	257878	285639	267804.78	330750	1142071.78
	Total Ash Utilisation	MT	2735214	2409332.954	2446664.206	3275025	3502544
C	Ash Utilisation percentage	%	79.80	90.39	101.04	93.71	90.71

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S.NO.	Description	Unit	2018-19 Q1	Q2	Q3	Q4	TOTAL
A	Ash Generation (Fly Ash + Bed Ash)	MT	1185049	1060091	936904	932886	4114930
B	Ash Utilisation	MT	1073069	1068290	1080742	1053109	4275210
i)	Brick Manufacturing	MT	474339	567406	664770	590645	2297159.8
ii)	Ready Mix Concrete	MT	35559	41077	44952	38192	159780
iii)	Low Lying area filling/ Area Development	MT	216622	142242	71189	64490	494543
iv)	Road Construction	MT	11873	0	0	10490	22363
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (Cement & AC Sheet manufacturing)	MT	334676	317565	299831	349292	130136
	Total Ash Utilisation	MT	1073069	1068290	1080742	1053109	427521
C	Ash Utilisation percentage	%	90.55	100.77	115.35	112.89	103.

Agreement

4. Fly Ash Utilisation Action Plan FOTR THE YEAR 2019-20 (quarter wise)*:

NO.	Description	Unit	Q1	Q2	Q3	Q4	Total
A	Ash Generation (Fly Ash + Bed Ash)	MT	1083846	1012052	1012051	1012051	4120000
B	Ash Utilisation						
i)	Brick Manufacturing	MT	1170867	1043045	1043044	1043044	4300000
ii)	Ready Mix Concrete	MT	702779	650000	650000	650000	2652779
iii)	Low Lying area filling/ Area Development	MT	32239	32000	32000	32000	128239
iv)	Road Construction	MT	12458	12500	12500	12500	49958
v)	Filling of abandoned stone quarry	MT	69440	68000	68000	68000	273440
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (Cement and A.C.Sheet manufacturing industries)	MT	353951	280545	280544	280544	1195584
	Total Ash Utilisation	MT	1170867	1043045	1043044	1043044	4300000
C	Ash Utilisation percentage	%	108.03	104.05	104.05	104.05	104.36

Name of Authorised Person;CH.RAMBABU
Signature:.. Ch:.RamBabu.
E-mail id envdr.nttps@gmail.com
Phone no. :9440907646

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

CHIEF ENGINEER/O&M
Dr.NTTPS/IBRAHIMPATNAM

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SN2

Format for Ash Utilisation Action Plan

1. Name of the Unit: KOTHAGUDEM THERMAL POWER STATION / V & VI-STAGES
2. Power Generation Capacity: 2 X 250 mw , 1 X 500 mw
3. Fly ash generation and utilisation year 2019-2020
4. Fly Ash Utilisation Action Plan(quarter wise)*:

2019-2020 (proposed utilization)

S.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-2020
A	Total Ash Generation (Fly Ash + Bed Ash)	MT	392221.46	425000.00	420000.00	400000	439247.23
B	Total Ash Utilisation	MT	27496.04	170000	210000	220000	
i)	Brick Manufacturing	MT	8710.85	50000	50000	50000	
ii)	Ready Mix Concrete	MT		20000	10000	10000	
iii)	Low Lying area filling/ Area Development (Pond ash)	MT	6800.00	50000	50000	50000	
iv)	Road Construction	MT		20000	50000	60000	
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT		30000	40000	40000	
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) - Cement	MT	11985.19	20000	60000	70000	
	Total Ash Utilisation	MT	27496.04	170000	210000	220000	
C	Ash Utilisation percentage (Avg.)	%	7.01	40.00	50.00	55.00	

Name of the Authorised Person: Sri K. Anandam

Signature

E-mail Id : ce.ktps5@tsgenco.co.in

Phone nos. : 08744 - 255272

*Note :

CHIEF ENGINEER
O&M, KTPS-V&VI Stages,
PALONCHA.

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Format for Ash Utilisation Action Plan

1. Name of the Unit : KOTHAGUDEM THERMAL POWER STATION / V & VI-STAGES
2. Power Generation Capacity : 2 X 2520 mw , 1 X 500 mw
3. Fly ash generation and utilisation year 2020-2021
4. Fly Ash Utilisation Action Plan(quarter wise)*:

2020-2021

S.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-2021
A	Total Ash Generation (Fly Ash + Bed Ash)	MT	400000.00	395000.00	400000.00	390000	
B	Total Ash Utilisation	MT	220000	250000	340000	390000	840000.00
i)	Brick Manufacturing	MT	50000	70000	90000	100000	
ii)	Ready Mix Concrete	MT	10000	20000	30000	30000	
iii)	Low Lying area filling/ Area Development (Pond ash)	MT	50000.00	70000	90000	120000	
iv)	Road Construction	MT	10000	20000	60000	60000	
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT	40000	40000	60000	60000	
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) - Cement	MT	70000.00	50000	70000	80000	
	Total Ash Utilisation	MT	220000.00	250000	340000	390000	
C	Ash Utilisation percentage (Avg.)	%	55.00	63.29	85.00	100.00	

Name of the Authorised Person: Sri K. Anandam

Signature:

E-mail id : ce.ktps5@tsgenco.co.in

Phone no. : 08744 - 255272

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PALONCHA.

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

pdfelement

S.N.3 S.N.3

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Format for Ash Utilisation Action Plan

1. **Name of the Unit: Mutiara power plant, Coastal Energen Pvt Ltd, Tuticorin, TamilNadu**
2. **Power Generation Capacity: 2 x 600 MW**
3. **Fly Ash Generation and Utilistion in previous two years (2017-18 and 2018-19):**

Year	Generation (T)	Utilization (T)	% of utilization
2017-18	89691	89064	99.4
2018-19	76624	76827	100

4. **Fly Ash Utilisation Action Plan for the year 2019 -20 & 2020 -21(quarter wise)*:**

S.NO	Description	Unit	Q1	Q2	Q3*	Q4*	Total Fly Ash Utilisation in Fy 2019-20
A	Ash Generation (Fly ash + Bottom ash)	MT	17423	15285	67500	67500	167708
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	7102	6741	24000	24000	61483
ii)	Ready Mix Concrete/cement	MT	8715	7463	30000	30000	76178
iii)	Low Lying area filling / Area Development (Inside the plant project area)	MT	1698	1054	13500	13500	29752
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify): Dyke raising	MT					
	Total Ash Utilisation	MT	17516	15259	67500	67500	167413
C	Ash Utilisation percentage	%	100%	100%	100%	100%	100%

*Ash generation depends on the plant load factor and coal quality.

We are already achieving the fly ash utilization of 100%. Our Ash dyke is empty right from the inception.

Name of the Authorised Person: **Mr.P.Sundararajan**

Signature:

Coastal Energen Pvt. Ltd. TUTICORIN Melamaruthur

E-mail id: Sundararajan.p@coastalenergen.com; Phone no.: 9600058053

***Note:**

TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achive 100% fly ash utilisation.

pdfelement

DHARIWAL

S.N. 11

RP - Sanjiv Goenka Group

Fly Ash Utilization Action Plan (quarter wise) - 2020-21

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in (FY 2020-21)
A	Ash Generation (Fly Ash + Bed Ash)	MT	123607	123607	100063	123607	470885
B	Ash Utilisation	MT	123607	123607	100063	123607	470885
i)	Brick Manufacturing	MT	11125	11125	9006	11125	42380
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT					
iv)	Road Construction	MT	1236	1236	1001	1236	4709
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) (cement industry)	MT	111247	111247	90057	111247	423796
	Total Ash Utilisation	MT	123607	123607	100063	123607	470885
C	Ash Utilisation percentage	%	100	100	100	100	100

Note *- Total Ash generation is based on consideration of Unit-2 only running at 85% PLF (Ash within 34%) and at present there is no schedule for running of Unit-1.*

Under process

Remove Watermark Now

RP-Sanjiv Goenka Group

Fly Ash Utilization Action Plan (quarter wise) * 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in (FY 2019-20)
A	Ash Generation (Fly Ash + Bed Ash)	MT	198431	104935	63874	104935	472175
B	Ash Utilisation	MT	198431	104935	63874	104935	472175
i)	Brick Manufacturing	MT	17747	5494	6387	9494	39122
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT		5000			5000
iv)	Road Construction	MT	8119			1000	9119
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) (cement industry)	MT	172564	94442	57486	94442	418934
	Total Ash Utilisation	MT	198431	104935	63874	104935	472175
C	Ash Utilisation percentage	%	100	100	100	100	100

lote - Total Ash generation is based on consideration of Unit-2 only running at 85% PLF (Ash within 34%) and at present there is no chedule for running of Unit-1.

Under Development

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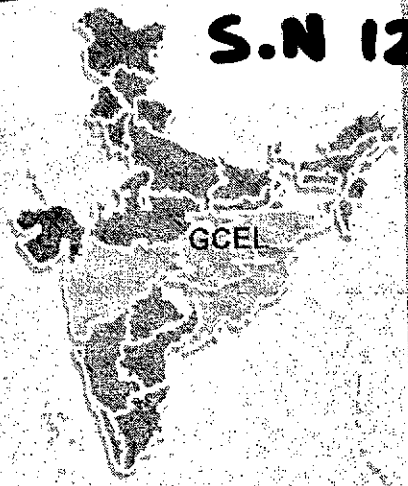
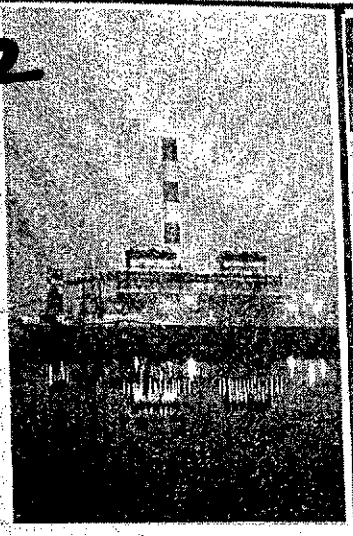
GCEL TPP

S.N 12





GCEL TPP	
Year of COD	FY 2015-16
Capacity	1370 MW
Coal Source	Domestic
Fine Fly Ash Generation	232.87 MT/day
Coarse Fly Ash Generation	3817.125 MT/day
Bottom Ash Generation	450 MT/day
Silo Capacity	3 X 1200 MT
Pond Ash Availability	0.3 lacs MT
Nearest port	Vizag (~550 km)

Particulars	2016-17	2017-18	2018-19	2019-20* (Projcted)
Total Ash Generation (Lacs MT)	1.71	2.96	4.37	16.74
Fly Ash Utilization (Lacs MT)	1.23	2.67	3.43	16.74
Utilization (%)	71.59	90.11	78.48	100

* Ash generation is projected based on possible PLF and ash content in coal within limit as per EC.

Existing Avenues:

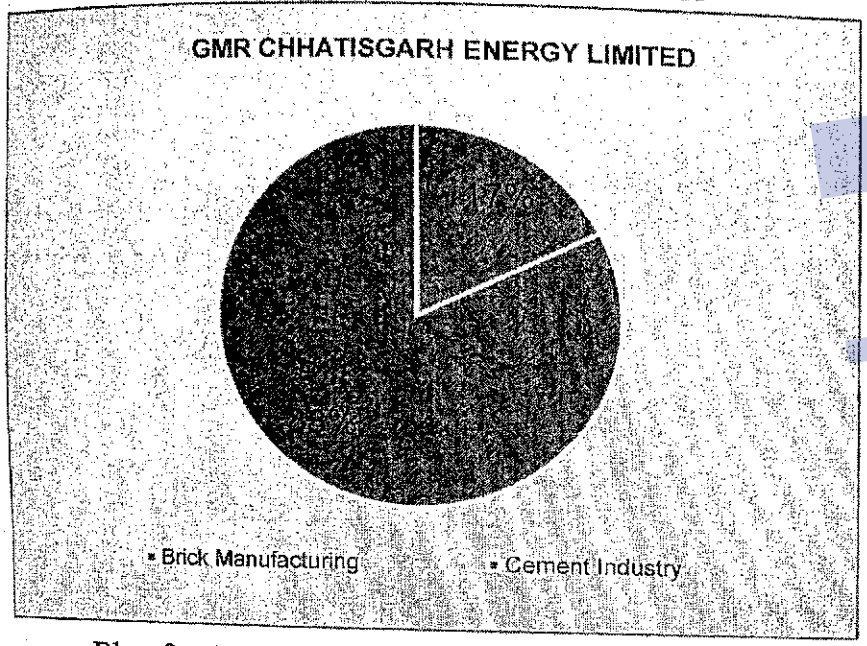
- Supplying to nearby Cement Industries.
- For evacuation of Bottom Ash already discharged in the Bottom Ash Pond-1 the process of drying is initiated through transferring the accumulated water in Ash Pond through recovery water pumps.
- Since the quality of the decanted Ash Water matches the Raw water quality this water is being transferred to Raw Water Reservoir through Ash recovery water pumps. (Suitable modification in the pipeline is already done).
- Also during subsequent operation of units the Bottom Ash will be discharged in BA Pond-2 only.

New Initiatives:

- At GCEL the bottom ash is handled in slurry form and is disposed in Bottom ash ponds 1&2. GCEL has made the necessary arrangements for evacuating Bottom Ash directly from the Ash Ponds. For achieving this GCEL has constructed ramps at suitable locations in Bottom Ash Ponds-1 so that Hywa and Loader can directly enter the Ash Pond and bottom Ash evacuation can be achieved. With the completion of ramp construction, the disposal of bottom ash in the BA pond has already started.

ASH UTILIZATION

Mode of Ash Utilization FY 2018-19



FACTORS AFFECTING 100% FLY ASH UTILIZATION

- GCEL doesn't have a long term PPA, which adds to the uncertainties in meeting the contractual requirements of Fly Ash supply to the Cement Industries and Brick Manufacturers.
- New CTO Condition: "The industry shall install Fly Ash brick plant of at least 1,80,000 numbers of bricks per day on or before July 2018". We are installing a fly ash brick manufacturing unit within the plant premises. The brick manufacturing is expected to start in the first week of May'19.

Plan for Ash Utilization – Quarterly (FY 2019-20)

Quarter	Coal Consumption (MT)	Power generation (MUS)	Quantity of fly ash generated (MT)	Quantity of bottom ash generated (MT)	Total Ash Generated	Brick Manufacturing (MT)	Supplied to Industry	Other purposes (MT)			Total Ash Utilized (MT)	% of ash utilization
							cement	Road Making	Mine Filing	Tiles		
Q-1	1181622	2499	361577	40175	401751	21560	376551	3640	If required	If required	401751	100
Q-2	1227943	2454	375750	41750	417500	31010	381940	4550	If required	If required	417500	100
Q-3	1282014	2404	392296	43588	435884	18750	413134	4000	If required	If required	435884	100
Q-4	1232225	2274	377060	41895	418956	20850	394256	3850	If required	If required	418956	100

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S.N. 13

(13)

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Format for Ash Utilisation Action Plan

1. Name of the Unit : 2 x 130 MW, JSW Energy Limited, Vijayanagar, Karnataka.
2. Power Generation Capacity : 260 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19) : Attached
4. Fly Ash Utilisation Action Plan (quarter wise) * 2019-20 and 2020-21 :

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	11539	**11539	**11539	**11539	46156
B	Ash Utilisation	MT	11539	11539	11539	11539	46156
i)	Brick Manufacturing	MT	6856	6856	6856	6856	27424
ii)	Ready Mix Concrete / Cement manufacturing	MT	2481	2481	2481	2481	9924
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area (specify),/ Pond embankment	MT	2202	2202	2202	2202	8808
	Total Ash Utilisation	MT	11539	11539	11539	11539	46156
C	Ash Utilisation percentage	%	100	100	100	100	100

**Fly ash utilization & generation Plan for Q2, Q3 & Q4 of FY 2019-20 is based on Q1 plant load factor and coal quality.

Name of the Authorised Person : Pradeep Manoor

Signature :

E-mail id : pradeep.manoor@jsw.in

Phone no. : 9449849708

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Format for Ash Utilisation Action Plan

1. Name of the Unit : 2 x 300 MW, JSW Energy Limited, Vijayanagar, Karnataka.
2. Power Generation Capacity : 600 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19) : Attached
4. Fly Ash Utilisation Action Plan (quarter wise) * 2019-20 and 2020-21 :

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	23348	**23348	**23348	**23348	93392
B	Ash Utilisation	MT	23348	23348	23348	23348	93392
i)	Brick Manufacturing	MT	0	0	0	0	0
ii)	Ready Mix Concrete / Cement manufacturing	MT	22591	22591	22591	22591	90364
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area (specify),/ Pond embankment	MT	757	757	757	757	3028
	Total Ash Utilisation	MT	22348	22348	22348	22348	93392
C	Ash Utilisation percentage	%	100	100	100	100	100

**Fly ash utilization & generation Plan for Q2, Q3 & Q4 of FY 2019-20 is based on Q1 plant load factor and coal quality.

Name of the Authorised Person : Pradeep Manoor

Signature :

E-mail id : pradeep.manoor@jsw.in

Phone no. : 9449849708

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N. 14

(14)

Format for Ash Utilisation Action Plan

1. **Name of the Unit: Captive Power Plant, Jindal Steel & Power Ltd- Angul, Odisha**
2. **Power Generation Capacity: 6 x 135 MW****
3. **Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):**

Year	Generation (T)	Utilization (T)	% of utilization
2017-18	823844	811084	98.45
2018-19	1178045	1151604	97.76

4. **Fly Ash Utilisation Action Plan(quarter wise)*:**

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	322830	345600	504000	504000	1676430
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	3607	4500	4500	4500	17107
ii)	Ready Mix Concrete	MT	Nil				
iii)	Low Lying area filling/ Area Development (Inside the plant project area)	MT	Nil	191100	287500	261500	740100
iv)	Road Construction	MT	247448	0	12000	38000	297448
v)	Filling of abandoned stone quarry	MT	Nil				
vi)	Mines void filling	MT	Nil				
vii)	Agriculture Utilisation	MT	Nil				
viii)	If any other area (specify): Dyke raising	MT	71775	150000	200000	200000	621775
	Total Ash Utilisation	MT	322830	345600	504000	504000	1676430
C	Ash Utilisation percentage	%	100	100	100	100	100

** The Captive Power Plant is located within Integrated Steel Plant Boundary

Name of the Authorised Person: Dr. J.K.Soni
Signature: .....
E-mail id: jagdish.soni@jindalsteel.com
Phone no.: 8826298942

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N.15

Format for Ash Utilisation Action Plan (FY :2019-20)

1. **Name of the Unit: Captive Power Plant, JSPL, Raigarh**, Chattisgarh
2. **Power Generation Capacity: 134 MW****
3. **Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):**

Year	Generation (T)	Utilization (T)	% of utilization
2017-18	484873	484873	100
2018-19	362789	362789	100

4. **Fly Ash Utilisation Action Plan (quarter wise) *:**

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	90,000	90,000	90,000	90,000	360000
B	Ash Utilisation	MT	90,000	90,000	90,000	90,000	360000
i)	Brick Manufacturing	MT	23,250	23,250	23,250	23,250	93000
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT	66,750	66,750	66,750	66,750	267000
iv)	Road Construction	MT					-
v)	Filling of abandoned stone quarry	MT					-
vi)	Mines void filling	MT					-
vii)	Agriculture Utilisation	MT					-
viii)	If any other area (specify)	MT					-
	Total Ash Utilisation	MT	90,000	90,000	90,000	90,000	360000
C	Ash Utilisation percentage	%	100	100	100	100	100

** The Captive Power Plant is located within Integrated Steel Plant Boundary

Name of the Authorised Person: Dr. J.K. Soni

Signature: .....

E-mail id: jagdish.soni@jindalsteel.com

Phone no.: 8826298942

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N. 16

Format for Ash Utilisation Action Plan

1. Name of the Unit: Maruti Clean Coal And Power Limited 1X300 MW TPP
2. Power Generation Capacity: 300 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	2017-18	2018-19
Fly ash generation (MT)	772448	727948
Fly ash utilisation (MT)	723216	727948

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	216434	178874	219394	202077	816779
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	18474	8944	10971	10105	48494
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT	69979	61930	98727	90934	321570
iv)	Road Construction	MT	127981	108000	109697	101038	446716
v)	Filling of abandoned stone quarry	MT	0	0	0	0	
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	
viii)	If any other area (specify)	MT	0	0	0	0	0.00
	Total Ash Utilisation	MT	216434	178874	219395	202077	816780
C	**Ash Utilisation percentage**	%	**100**	**100**	**100**	**100**	

Name of the Authorised Person: Tushar Ahlawat

Signature:

E-mail id :tushar.ahlawat@acbindia.com

Phone no. : 9654129396

*Note :

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Parliament

S.N. 17

NLC TAMILNADU POWER LIMITED

ASH UTILIZATION ACTION PLAN

1. Name of the Unit: NLC TAMILNADU POWER LIMITED, TUTICORIN

2. Power Generation Capacity: 1000 MW (2 x 500 MW)

3. Fly ash generation and utilization in previous two years (2017-18 & 2018-19):

Period: 2017-18

Sl.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2017-18
A	Ash Generation (Fly Ash + Bottom Ash)	MT	245693	272539	292547	282101	1092880
B	Ash Utilization	MT	245693	272539	292547	282101	1092880
i)	Brick Manufacturing	MT	11352	9994	31639	18101	71087
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development (Bottom Ash)	MT	-	8332	4290	-	-
iv)	Road construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilization	MT	-	-	-	-	-
vii)	Cement	MT	144796	166936	213327	212559	737619
viii)	Bottom Ash to Cement & Brick manufacturers	MT	89544	87278	43290	51441	271553
ix)	Total Ash Utilization	MT	245693	272539	292547	282101	1092880
C	**Ash Utilization Percentage**	%	100.00	100.00	100.00	100.00	100.00

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S.N. 18

(18)

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Format for Ash Utilisation Action Plan

1. **Name of the Unit: R.K.M Powergen Pvt Ltd**

2. **Power Generation Capacity**: 4 x 360MW

3. **Fly ash generation and utilisation in**

   previous two years (2017-18 and 2018-19):

S.No.	Financial Year	Fly Ash Generation	Fly Ash Utilization
i	2017-18	420640.4	381612
ii	2018-19	608142	550627.5

4. **Fly Ash Utilisation Action Plan (quarter wise)** *: considering operation of all the units i.e (4x360MW)

S. No.	Description	Unit	Quarterly Fly Ash Generation				Total Fly ash Generation
			Q1	Q2	Q3	Q4	
A	Ash Generation (Fly Ash + Bed Ash)	MT	705667.5	705667.5	705667.5	705667.5	
B	Ash Utilisation						
i)	Brick Manufacturing	MT	30203.7	30203.7	30203.7	30203.7	**120815**
ii)	Ready Mix Concrete	MT	-	-	-	-	
iii)	Low Lying area filling	MT	45625	45625	45625	45625	**182500**
iv)	Road Construction	MT	45625	45625	45625	45625	**182500**
v)	Filling of abandoned stone quarry	MT	-	-	-	-	
vi)	Mines void filling	MT	80000	80000	80000	80000	**320000**
vii)	Agriculture Utilisation	MT	-	-	-	-	
viii)	**Others – as specified under :**						
1	Cement Plant	MT	730000	730000	730000	730000	**2920000**
2	Light weight Aggregate	MT	50000	50000	50000	50000	**200000**
3	Transportation to other State	MT	18250	18250	18250	18250	**73000**

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RattanIndia Power Ltd., Amravati 5 x 270 MW Ash Utilisation Action Plan

1. Name of the Unit: RattanIndia Power Ltd. Plot Number D2 & D2 (Part) Additional Industrial Area, Nandgaonpeth, MIDC, Amravati-444901(MS).
2. Power Generation Capacity: 5x 270 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Sr.No	Financial Year	Total Ash Generation	Total Ash Utilization
		MT	MT
1	2017-18	8,26,918	8,33,561
2	2018-19	7,21,492	8,32,669

4. Fly Ash Utilisation Action Plan (quarter wise) * 2019-20 and 2020-21:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
			2019-20	2019-20	2019-20	2019-20	
A	Ash Generation (Fly Ash + Bed Ash)	MT	231898.896	178410.21	178410.21	178410.21	767129.53
B	Ash Utilisation	MT	246813.72	98125.61	196251.23	226580.97	767771.54
i)	Brick Manufacturing	MT	229935	49062.80	98125.62	113290.48	490413.91
ii)	Ready Mix Concrete	MT	6625	2796.58	5593.16	6457.56	21472.30
iii)	Low Lying area filling/ Area Development	MT	10245	46266.22	92532.46	106832.93	255876.61
iv)	Road Construction	MT	0.00	0.00	0.00	0.00	0.00
v)	Filling of abandoned stone quarry	MT	0.00	0.00	0.00	0.00	0.00
vi)	Mines void filling	MT	0.00	0.00	0.00	0.00	0.00
vii)	Agriculture Utilisation	MT	0.00	0.00	0.00	0.00	0.00
viii)	If any other area (specify)	MT	8.72	9.81	19.62	22.65	60.82
	Total Ash Utilisation	MT	246813.72	98135.42	196270.85	226603.62	767823.63
C	Ash Utilisation percentage	%	106.4	55.0	110.0	127.0	100.09

Name of the Authorised Person: Gautam Wazir

Signature:

E-mail id : gwazir@rattanindia.com

Phone no. : +91-9818489280

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(12) S.N.20 (20)

Format for Ash Utilisation Action Plan

1. Name of the Unit: **TAQA Neyveli Power Company Pvt. Ltd.,**
2. Power Generation Capacity: **250 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly ash generation (Tons)	Fly ash utilisation (%)
2017 - 2018	62500	97
2018 - 2019	85964	90.9

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	26519				
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	3151				
ii)	Ready Mix Concrete	MT	0				
iii)	Low Lying area filling/ Area Development	MT	0				
iv)	Road Construction	MT	0				
v)	Filling of abandoned stone quarry	MT	0				
vi)	Mines void filling	MT	672				
vii)	Agriculture Utilisation	MT	0				
viii)	cement	MT	18,048				
viii)	If any other area (specify)Construction	MT	1680				
ix	Total Ash Utilisation	MT	23551				
C	Ash Utilisation percentage	%	88				

Name of the Authorised Person:..... Bhavin Kumaar V A.

Signature:..... [signature]

E-mail id :..... bhavin.kumaar.va@taqaglobal.com

Phone no: :..... 9842355883

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For the Year 2017 - 2018

Sl No	Month	Fly Ash						Bottom ash				Total ash(Fly ash+Bottom ash)			
		Fly Ash Generation(Tonnes)	Fly Ash Disposal(Tonnes)				% of fly ash utilization	Bottom Ash Generation(Tonnes)	Bottm Ash		% of bottom ash utilization	Total Ash Generation(Tonnes)	Total Ash		% of total ash utilization
			Cement plant	Brick manufacturer	Fly as Silo closing level	Ash pond			Cement plant	Ash pond			Cement plant	Ash pond	
					223										
1	April	6613	4,941	943	69	883	91.30%	1,653	28	1,625	1.69%	8,266	5,912	2,508	71.52%
2	May	5672	4,822	867	52	0	100.60%	1,418	26.6	1,391	1.88%	7,090	5,716	1,391	80.62%
3	June	4338	3,918	289	75	108	96.45%	1,085	162	923	14.93%	5,423	4,369	1,031	80.57%
4	July	2500	2,132	163	110	171	90.37%	625	164	461	26.24%	3,125	2,458	632	78.66%
5	August	5409	4,014	930	149	425	90.69%	1,352	54	1,298	3.99%	6,761	4,998	1,723	73.93%
6	Septembe	5808	4,540	1,317	0	100	103.41%	1,452	291	1,161	20.04%	7,260	6,148	1,261	84.68%
7	October	0	0	0	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	#DIV/0!
8	Novembe	6640	5,545	1,025	70	0	97.89%	1,660	196	1,464	11.81%	8,300	6,766	1,464	81.52%
9	Decembe	4627	3,680	985	32	0	101.65%	1,157	93	1,064	8.04%	5,783	4,758	1,064	82.27%
10	January	5592	4,336	1,012	190	86	92.82%	1,398	140	1,258	10.02%	6,990	5,488	1,344	78.52%
11	February	5446	4,537	979	120	0	102.57%	1,361	145	1,216	10.65%	6,807	5,661	1,216	83.16%
12	March	9856	8,262	1,459	50	205	99.34%	2,464	560	1,904	22.73%	12,321	10,281	2,109	83.45%
Total		62500.2	50727.3	9968.62		1978	97.11	15624.8	1859.6	13764.6	11.90	78125.1	62555.5	15742.6	
				19.65139											

For the Year 2018 - 2019

Sl No	Month	Fly Ash						Bottom ash					Total ash(Fly ash+Bottom ash)				
		Fly Ash Generation(Tonnes)	Fly Ash Disposal(Tonnes)				% of fly ash utilization	Bottom Ash Generation(Tonnes)	Bottm Ash			% of bottom ash utilization	Pond ash Disposal MT	Total Ash Generation(Tonnes)	Total Ash Disposal(Tonnes)			% of total ash utilization
			Cement plant	Brick manufacturer	Fly ash in Silo MT	Ash pond			Cement plant (Mine Filling)	Brick manufacturer	Ash pond				Cement plant	Brick manufacturer	Ash pond	
					50													
1	April	0	0	0	0	0	#DIV/0!	0	0	0	0	#DIV/0!		0	0	0	0	#DIV/0!
2	May	9181.2	6885.2	2109	94	133	96.94%	1768	112	0	1656	6.33%		10949.2	9106.2	2109	1789	102.43%
3	June	3711	2636	1115	0	0	103.61%	928	56	0	871	6.03%		4639	3807	1115	871	106.10%
4	July	5126.61	4010.61	1116	0	0	100.00%	1281.65	58	0	1223.65	4.53%		6408.26	5184.61	1116	1223.65	98.32%
5	August	7224.44	5338.44	1591	110	180	94.39%	1687.36	84	0	1603.36	4.98%		8911.8	7013.44	1591	1783.36	96.55%
6	Septembe	3194.08	2614.45	563.63	126	0	99.00%	798.52	84	0	714.52	10.52%		3992.6	3262.08	563.63	714.52	95.82%
7	October	9546.02	8496.61	606.41	52	517	96.13%	2386.5	308	0	2078.5	12.91%		11932.5	9411.02	606.41	2595.5	83.95%
8	Novembe	10097.3	6211.52	430.82	317	3190	63.16%	2524.34	224	0	2300	8.87%		12621.7	6866.34	430.82	5490	57.81%
9	Decembe	8692.84	6617.93	1196.91	135	1060	91.99%	2173.21	308	0	1865.21	14.17%		10866.1	8122.84	1196.91	2925.21	85.77%
10	January	5712.39	4375.92	571.47	38	862	88.31%	1428	196	0	1232	13.73%		7140.39	5143.39	571.47	2094	80.04%
11	February	8369	5048.25	1311.6	185	1862	74.24%	2092	0	0	2092	0.00%		10461	6359.85	1311.6	3954	73.33%
12	March	8413	6684	1742	172	0	100.31%	2103	28	0	2075	1.33%		10516	8454	1742	2075	96.96%
Total		79267.9	58918.9	12353.8		7804	90.13%	19170.6	1458		17711.2	7.61		98438.5	72730.8	12353.8	25515.2	86.43%
				20.96752														

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TAQA

For the Year 2019 - 2020

Sl No	Month	Fly Ash						Bottom ash						Total ash(Fly ash+Bottom ash)				
		Fly Ash Generation(Tonnes)	Fly Ash Disposal(Tonnes)				% of fly ash utilization	Bottom Ash Generation(Tonnes)	Bottm Ash			% of bottom ash utilization	Pond ash Disposal MT	Total Ash Generation(Tonnes)	Total Ash Disposal(Tonnes)			% of total ash utilization
			Cement plant	Brick manufacturer	Fly ash in Silo MT	Ash pond			Cement plant (Mine Filling)	Brick manufacturer	Ash pond				Cement plant	Brick manufacturer	Ash pond	
					172													
1	April	9352	7770	1741.8	12	0	103.42%	2338	224	0	2114	9.58%	1120.00	11689	7994	1741.8	2114	92.87%
2	May	6686.59	5938.84	707.75	120	0	97.79%	1671.64	280	0	1391.64	16.75%	352.00	8358.23	6219	707.75	1391.64	87.08%
3	June	5176.5	4339.64	701.86	135	0	97.10%	1294.125	168	0	1126.12	12.98%	208.00	6470.63	4508	701.86	1126.12	83.72%
4	July	1780	1495.24	285.56	0	0	107.63%	445.2	28	0	417.2	6.29%	768.00	2225.2	1523	285.56	417.2	115.80%
5	August	4827.33	3772.87	1004.46	50	0	97.93%	1206.83	28	0	1178.83	2.32%	192.00	6034.16	3801	1004.46	1178.83	82.82%
6	September						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
7	October						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
8	November						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
9	December						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
10	January						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
11	February						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
12	March						#DIV/0!			0		#DIV/0!		0	0	0	0	#DIV/0!
Total		27822	23316.4	4441.43		0	99.77%	6955.69	728		6227.68	10.47	2640	34777.7	24044.4	4441.43	6227.68	89.50%

19.04856

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FLY ASH UTILISATION ACTION PLAN

S.N. 21

1- Name of Unit: Harduaganj Thermal Power Plant, Kasimpur, Aligarh, Uttar Pradesh.
2- Power Generation Capacity: 2X250MW +1X110 MW= 610 MW
3- Fly Ash Generation and Utilization in Previous 2 Years (2017-018) Details Enclosed

Year	Total Ash Generated	Total Ash Utilized	% Ash Utilization
2017-18	926500 MT	869708 MT	93.87
2018-19	788884 MT	762373 MT	96.64

4 - Fly Ash Utilization action Plan (qtr wise) Year 2019-20

S.No.	Description	Unit	Q1 Actual	Q2 Actual	Q3 Projected	Q4 Projected	Total Fly Ash Utilization in financial year 2019-20
A	Total Ash Generation	MT	232251	230050	180000	145000	787301
B	Total Ash Utilization						
1	Brick Manufacturing	MT	19067	12221	12000	12000	55288
2	Ready Mix Concrete	MT	-	-	-	-	-
3	Low lying area Filling /area development	MT	114058	101301	110000	110000	435359
4	Road Construction	MT	-	-	-	-	-
5	Filling of abandoned stone quary	MT	-	-	-	-	-
6	Mines void filling	MT	-	-	-	-	-
7	Agriculture utilization	MT	-	-	-	-	-
8	If any other area specified (Cement manufacturing)	MT	95185	61715	67000	73000	296900
	Total Ash Utilization	MT	228310	175237	189000	195000	787547
C	Ash utilization percentage	%	98.30	76.17	105.00	134.48	100.03

Harduaganj Thermal Power Plant trying to increase ash utilization by taking following steps-

1- We have agreement with cements factories. They are insisted to lift maximum dry fly ash From silo.03 nos silos are install at above 3 nos. units for collection of dry fly ash.
2. MOEF Brick Manufacturers are ~~also~~ being contacted to lift 20% dry fly ash for their brick/ fly ash Based products free of cost as per MOEF guide line.
3- Firms /Persons are contacted to use pond ash in law lying areas and filling in constructions Such as colony development.
4- Public Notice is given in News paper to lift pond ash free of cost.

1- Name of authorized person: Er, R.K.Wahi, Chief Engineer, Harduaganj Thermal Power Plant, UPRVUNL Kasimpur Aligarh.

2- Signature:

3- Email Id: gm.harduaganj@uprvunl.org

Phone No: 9415900245

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S.N.22

22

Format for Ash Utilisation Action Plan

1. Name of the Unit: Bakreswar Thermal Power Station
2. Power Generation Capacity: 1050 MW (5X210)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly ash Generation (MT)	Fly ash utilization (MT)
2017-18	1699633	1689087 (99.38%)
2018-19	1605671	1878295 (116.98%)

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	441226	400000	450000	400000	1691226
B	Ash Utilisation	MT	709323	548000	663750	628000	2549073
i)	Brick Manufacturing	MT	11106	8000	11250	8000	38356
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	410386	300000	360000	340000	1410386
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)- a. To cement manufacturing industries b. To traders supplying to cement industries	MT	287831	240000	292500	280000	1100331
	Total Ash Utilisation	MT	709323	548000	663750	628000	2549073
C	Ash Utilisation percentage	%	160.76	137.00	147.50	157.00	150.72

Name of the Authorised Person: A. K. Mondal, DGM (E&S)

Signature: 17/07/19

E-mail id : akmondal@wbpdcl.co.in

Phone no. : 8336903966

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Format for Ash Utilisation Action Plan

1. Name of the Unit: Bakreswar Thermal Power Station
2. Power Generation Capacity: 1050 MW (5X210)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly ash Generation (MT)	Fly ash utilization (MT)
2017-18	1699633	1689087(99.38%)
2018-19	1605671	1878295(116.98%)

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	441226	400000	450000	400000	1691226
B	Ash Utilisation	MT	709323	548000	663750	628000	2549073
i)	Brick Manufacturing	MT	11106	8000	11250	8000	38356
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	410386	300000	360000	340000	1410386
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)- a. To cement manufacturing industries b. To traders supplying to cement industries	MT	287831	240000	292500	280000	1100331
	Total Ash Utilisation	MT	709323	548000	663750	628000	2549073
C	Ash Utilisation percentage	%	160.76	137.00	147.50	157.00	150.72

Name of the Authorised Person:...Mr A.K.Mondal, DGM(E&S)

Signature:..... 17/02/19

E-mail id : akmondal@wbpdcl.co.in

Phone no. : 8336903966

Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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28

S.N.24

24

Ash Utilisation Action Plan

1. Name of the Unit: Rayalaseema Thermal Power Project, Kalamalla (V) , Yerraguntala (M), Kadapa (D), Andhra Pradesh -516 312.

2. Power Generation Capacity: 5 x 210 MW and 1 x 600 MW.

3. Fly Ash Generation and utilization in previous two years (2017-18 and 2018-19):

Sl No.	Financial Year	Ash Generated (MT)	Ash Utilised (MT)	Percentage Utilisation
1	2017-18	2077696	1541584	74.20
2	2018-19	1923957	1617229	84.06

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S. No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20.
A	Ash Generation (Fly Ash + Bed Ash)	MT	862500	862500	862500	862500	3450000
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	275000	275000	275000	275000	1100000
ii)	Ready Mix Concrete	MT	495000	495000	495000	495000	1980000
iii)	Low Lying area filling/ Area Development	MT	0.0	0.0	0.0	0.0	0.0
iv)	Road Construction	MT	7500	7500	7500	7500	30000
v)	Filling of abandoned stone quarry	MT	0.0	0.0	0.0	0.0	0.0
vi)	Mines void filling	MT	0.0	0.0	0.0	0.0	0.0
vii)	Agriculture Utilisation	MT	0.0	0.0	0.0	0.0	0.0
viii)	If any other area (Specify)	MT	0.0	0.0	0.0	0.0	0.0
	Total Ash Utilisation	MT	777500	777500	777500	777500	3110000
C	Ash Utilisation percentage	%	90.14	90.14	90.14	90.14	90.14

Name of the Authorised Person: M.S.V.Subramanyam , Chief Engineer/O&M/RTPP.

17/7/19

Signature :

Chief Engineer/O&M
R.T.P.P., V.V. Reddy Nagar

E-mail id : rtpp.ce@apgenco.gov.in, rtppdeep@apgenco.gov.in, rtpp.detech@apgenco.gov.in.

Phone no. : 9440907113, 9440907120, 9440907145

***Note :**
TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

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(91) S.N.25 (25)

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FORMAT FOR FLY ASH UTILISATION ACTION PLAN

1. Name of the Unit: Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS)

2. Power Generation Capacity: 1600 MW (2 x 800 MW)

3. Fly ash generation and utilisation during the previous two years (2017-18 & 2018-19):

	2017-18	2018-19
Ash generation	827295	1213636
Ash utilisation	622567	792655
% of Ash Utilisation	75.25%	65.31%

Details of utilization for the FY- 2018-19

S.NO	Description	Unit	Q1	Q2	Q3	Q4	TOTAL
A	Ash Generation (Fly Ash + Bed Ash)	MT	372059	277456	298761	265360	1213636
B	Ash Utilisation	MT	165438	210756	201255	215206	792655
i)	Brick Manufacturing	MT	28247	33939	47533	30269	139988
ii)	Ready Mix Concrete	MT	5000	0	1000	11950	17950
iii)	Low Lying area filling/ Area Development	MT	48625	49200	8600	30000	136425
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0

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viii)	If any other area (Cement, AC Sheet & others)	MT	83566	127617	144122	142987	
	Total Ash Utilisation	MT	165438	210756	201255	215206	792
C	Ash Utilisation percentage	%	44.47	75.96	67.36	81.10	65.

4. **Details of utilization for the FY- 2019-20 (quarter wise)*:**

S.NO	Description	Unit	Q1	Q2	Q3	Q4	Total
A	Ash Generation (Fly Ash + Bed Ash)	MT	413917	400949	276345	388552	1479763
B	Ash Utilisation	MT	138823	219060	359576	543071	1260530
i)	Brick Manufacturing	MT	31732	32142	20726	29141	113742
ii)	Ready Mix Concrete	MT	2700	8723	4318	11657	27397
iii)	Low Lying area filling/ Area Development	MT	1200	7100	38000	75000	121300
iv)	Road Construction	MT	0.00	2000	110000	165000	277000
v)	Filling of abandoned stone quarry	MT	0		0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (Cement, AC Sheet & others)	MT	103191	169095	186533	262273	721092
	Total Ash Utilisation	MT	138823	219060	359576	543071	1260530
C	Ash Utilisation percentage	%	33.54	54.64	130.12	139.77	85.18

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Fly Ash Utilisation Action Plan FOR THE YEAR 2020-21 (quarter wise)*:

S.NO	Description	Unit	Q1	Q2	Q3	Q4	TOTAL
A	Ash Generation (Fly Ash + Bed Ash)	MT	393704	403903	276345	388552	1462504
B	Ash Utilisation	MT	393704	403903	276345	388552	1462504
i)	Brick Manufacturing	MT	29528	30293	20726	29141	109688
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	9843	10098	6909	9714	36563
iv)	Road Construction	MT	88583	90878	62178	87424	329063
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (Cement, AC Sheet & others)	MT	265750	272634	186533	262273	987190
	Total Ash Utilisation	MT	393704	403903	276345	388552	1462504
C	Ash Utilisation percentage	%	100.00	100.00	100.00	100.00	100.00

Name of the Authorised Person: CH.KRISHNA PRASAD

Signature:.....

E-mail id : appdcl.office@gmail.com, appdcl.office@apgenco.gov.in

Phone no. : 9493122798

*Note :
TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

17/9/19

CHIEF GENERAL MANAGER
APPDCL

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S.N. 26

Adani Power Maharashtra Limited

Tiroda TPP: Ash Utilization Plan (Fig in Lac Tons)

S.No.	Particulars	Estimated Fly Ash Generation	Utilization						Utilization without Ash Dyke raising & HCSD Mound formation		Ash Dyke Raising	HCSD Mound Formation	Total Utilization with Ash Dyke raising & HCSD Mound formation	
			Reclamation of Low - lying area	Supply to cement companies	Supply for Road Projects	Brick Plants	Packing in 50 kg bags for RMC	Own/Pvt. Siding in Satna Region for Cement Plants	QTY	%			QTY	%
1	FY 2019-20													
a	Quarter 1	11.38	2.40	0.23	0.30	0.25	0.05	0.00	3.23	**28.34**	1.00	7.16	11.38	**100.00**
b	Quarter 2	7.02	1.60	0.45	0.10	0.25	0.15	0.00	2.55	**36.32**	1.00	3.47	7.02	**100.00**
c	Quarter 3	11.84	6.00	0.90	0.40	0.25	0.20	0.00	7.75	**65.46**	1.50	2.59	11.84	**100.00**
d	Quarter 4	11.50	6.00	0.90	0.30	0.25	0.20	0.00	7.65	**66.52**	1.50	2.35	11.50	**100.00**
2	FY 2020-21													
a	Quarter 1	11.38	5.25	2.18	0.30	0.25	0.20	0.00	8.18	**71.84**	0.75	2.46	11.38	**100.00**
b	Quarter 2	7.02	3.25	1.50	0.10	0.25	0.20	0.00	5.30	**75.50**	0.75	0.97	7.02	**100.00**
c	Quarter 3	11.84	5.72	2.18	0.40	0.25	0.30	3.00	11.84	**100.00**	0.00	0.00	11.84	**100.00**
d	Quarter 4	11.50	5.38	2.18	0.40	0.25	0.30	3.00	11.50	**100.00**	0.00	0.00	11.50	**100.00**

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SN 28

Action plan for 100% ash utilization i.r.o Bokaro Thermal Power Station(BTPS), DVC

Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
Ash Generation (Fly Ash + Bed Ash)	MT	226800	215600	226800	226800	896000
Ash Utilisation	MT	279000	206990	240000	240000	965990
Brick Manufacturing	MT	0	0	0	0	0
Ready Mix Concrete /Cement	MT	450	12290	20000	20000	52740
Low Lying area filling/ Area Development	MT	0	0	0	0	0
Road Construction	MT	0	0	0	0	0
Filling of abandoned stone quarry	MT	278550	194700	220000	220000	913250
Mines void filling	MT	0	0	0	0	0
Agriculture Utilisation	MT	0	0	0	0	0
In any other area (Specify)	MT	0	0	0	0	0
Total Ash Utilisation	MT	279000	206990	240000	240000	965990
Ash Utilisation percentage	%	123	96	106	106	108

IOP: Kamlesh Kumar , Mail Id: kamlesh.kumar@dvc.gov.in ,Mobile: 9431126686

S.N. 29

Action plan for 100% ash utilization i.r.o Durgapur Steel Thermal Power Station(DSTPS), DVC

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	469700	453930	450000	450000	1823630
B	Ash Utilisation	MT					
(i)	Brick Manufacturing	MT	28400	27960	35000	35000	126360
(ii)	Ready Mix Concrete /Cement	MT	218500	193140	210000	250000	871640
(iii)	Low Lying area filling/ Area Development	MT	121600	105240	150000	100000	476840
(iv)	Road Construction	MT	0	0	0	0	0
(v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
(vi)	Mines void filling	MT	0	0	0	0	0
(vii)	Agriculture Utilisation	MT	0	0	0	0	0
(viii)	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	368500	326340	360000	350000	1404840
C	Ash Utilisation percentage	%	78	72	80	78	77

P:Manabendra Debdas , Mail Id: manabendra.debdas@dvc.gov.in , Mobile: 9091928046

मुख्य अभियंता, इ एम एंड पीसी
Chief Engineer, EM & PC
दामोदर घाटी निगम
Damodar Valley Corporation
डी.वी.सी. टावर्स, कोलकाता-700 054
DVC Towers, Kolkata-700 054

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Action plan for 100% ash utilization i.r.o Durgapur Steel Thermal Power Station(DSTPS), DVC

Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
Ash Generation (Fly Ash + Bed Ash)	MT	420000	380000	430000	450000	1680000
Ash Utilisation	MT					
Brick Manufacturing	MT	35000	30000	38000	40000	143000
Ready Mix Concrete /Cement	MT	250000	200000	200000	225000	875000
Low Lying area filling/ Area Development	MT	150000	150000	250000	260000	810000
Road Construction	MT	0	0	0	0	0
Filling of abandoned stone quarry	MT	0	0	0	0	0
Mines void filling	MT	0	0	0	0	0
Agriculture Utilisation	MT	0	0	0	0	0
In any other area (Specify)	MT	0	0	0	0	0
Total Ash Utilisation	MT	400000	350000	450000	485000	1685000
Ash Utilisation percentage	%	95	92	105	108	100

anabendra Debdas , Mail Id: manabendra.debdas@dvc.gov.in , Mobile: 9091928046

मुख्य अभियंता, ई एम एंड पीसी
Chief Engineer, EM & PC
दामोदर घाटी निगम
Damodar Valley Corporation
डी.वी.सी. टावर्स, कोलकाता-700 054

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Action plan for 100% ash utilization i.r.o Koderma Thernal Power Station(KTPS)

	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	565300	530580	565300	565300	2226480
B	Ash Utilisation	MT	422000	500000	650000	650000	2222000
i)	Brick Manufacturing	MT	0	0	0	0	0
ii)	Ready Mix Concrete /Cement	MT	235000	240000	310000	300000	1085000
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	187000	260000	340000	350000	1137000
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	422000	500000	650000	650000	2222000
C	Ash Utilisation percentage	%	75	94	115	115	100

HOP: Sajal Banerjee , Mail Id: sajal.banerjee@dvc.gov.in , Mobile: 9434788436

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FORMAT FOR ASH UTILISATION ACTION PLAN (UKAI TPS)

1. Name of the Unit: GSECL TPS UKAI
2. Power Generation Capacity: 1110 MW (1X500 MW, 2X200 MW & 1X210 MW)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): As per Annexure- I
4. Fly Ash Utilisation Action Plan(quarter wise)*: FY 2019-20 & FY 2020-21

Sr. No.	Description	Unit	Q1 (April'19 to June'19) (Actual Utilization)	Q2 (July'19 to Sep'19)	Q3 (Oct'19 to Dec'19)	Q4 (JAN'20 to March'20)	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	494161	337426	428475	372167	1632229
B	Ash Utilisation	MT	315723	253070	409211	409559	1387563
i)	Brick Manufacturing	MT	116520	116412	160250	162637	555819
ii)	Ready Mix Concrete / Cement	MT	121081	93636	140120	138817	476647
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	1000	36000	48000	85000
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	78120	42022	72841	60105	253088
	Total Ash Utilisation	MT	315722	253070	409211	409559	1387562
C	Ash Utilisation percentage	%	63.89	75.00	95.50	110.05	85.01

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Annexure -I

Sr. No.	Year	TOTAL ASH GENERATED	TOAL ASH Utilization	Total % age
1	2017-2018	1404886	1065142	75.82
2	2018-2019	1311946	1081131	82.41

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Format for Ash Utilisation Action Plan

1. Name of the Unit: Wanakbori Thermal Power Station
2. Power Generation Capacity: 07 units, 210 MW capacity of each unit.
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

	2017-18	2018-19
Fly ash generation (MT)	1816332.06	1687113.25
Fly ash utilization (MT)	1296585.13	1570680.30
% ash utilization	71.38	93.09

4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.N.	Description		Unit	Q1 April'19 to June'19	Q2 July'19 to Sept'19	Q3 Oct'19 to Dec'19	Q4 Jan'20 to Mar'20	Total Fly Ash Utilisation in FY 2019-2020
A	Ash Generation (Fly Ash + Bed Ash)		MT	472646	433120**	563872**	535457**	2005095**
B	Ash Utilisation		MT	415788	404649	607749	583170	2011357
i)	Brick Manufacturing		MT	47542	45478	59207	56223	208449
ii)	Ready Mix Concrete		MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development		MT	-	-	-	-	-
iv)	Road Construction		MT	-	-	-	-	-
v)	Filling of abandoned stone quarry ***		MT	-	30000	120000	120000	270000
vi)	Mines void filling		MT	-	-	-	-	-
vii)	Agriculture Utilisation		MT	-	-	-	-	-
viii)	If any other area (specify)	Cement	MT	274100	253375	329865	313242	1170583
		Other (Traders)	MT	82796	75796	98678	93705	350974
		Ash Dyke Rising	MT	11350	-	-	-	11350
	Total Ash Utilisation		MT	415788	404649	607749	583170	2011357
C	Ash Utilisation percentage		%	87.97	93.43	107.78	108.91	100.31

Name of the Authorised Person: Chief Engineer (C&O)

Signature:.....

E-mail id : wtps.ceg@gebmail.com

Phone no. : (02699) 235522

*Note : TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

**Ash generated is assumed in Quarter 2 on PLF @ 56.02 %, Quarter 3 on PLF @ 74.02 % & Quarter 4 on PLF @ 75.22 %.

***Work for lifting of Pond ash for Mines/Stone quarry filling has been finalised and work will be start in one month (EPO No.91679).

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S.N.33

Format for Ash Utilisation Action Plan

1. Name of the Unit: Rajiv Gandhi Thermal Power Plant, Khedar, Hisar (HPGCL)
2. Power Generation Capacity: 1200 MW (2 Units of 600 MW)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): FY 2017 -18 1270849.34/1077686.60 = 84.80 % FY 2018-19 1064510.28/648201.44 = 60.89 %
4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	186760	292583	292583	292583	1064509
B	Ash Utilisation	MT	154991	314066	316066	319066	1104189
i)	Brick Manufacturing	MT	23281	46813	46813	46813	
ii)	Ready Mix Concrete	MT	933	2000	2000	2000	
iii)	Low Lying area filling/ Area Development	MT	55760	80000	82000	85000	
iv)	Road Construction	MT	-	-	-	-	
v)	Filling of abandoned stone quarry	MT	-	-	-	-	
vi)	Mines void filling	MT	-	-	-	-	
vii)	Agriculture Utilisation	MT	-	-	-	-	
viii)	If any other area (Cement Company)	MT	75106	185254	185254	185254	
	Total Ash Utilisation	MT	154991	314066	316066	319066	1104189
C	Ash Utilisation percentage	%	82.989	107.34	108.03	109.05	103.73

Name of the Authorised Person: Er. Yashpal Singh, Executive Engineer/CMD-1, RGTPP, Khedar

Signature:

E-mail id : singh.yashpal@hpgcl.org.in

Phone no. : 9355084412

***Note : TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.**

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S.N.34

Format for Ash Utilisation Action Plan

1. Name of the Unit: Mahatma Gandhi Thermal Power Plant
2. Power Generation Capacity: 1320 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly Ash Generation (MT)	Fly Ash Utilization (MT)	% Utilization
2017-18	18,73,860	14,30,927	76 %
2018-19	16,48,027	22,56,608	137 %
2019-20$	515,939	1,054,702	204%

$ Data till July 25, 2019. Residual ash in Ash dyke is only ~8,000 MT(bottom ash) as rolling stock

4. Fly Ash Utilisation Action Plan (quarter wise)* 2019-20 and 2020-21: Action plan for 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	394,844	375,317	379,454	449,208	1,598,823
B	Ash Utilisation	MT					
	Cement Manufacturing	MT	347,170	317,785	321,509	384,287	1,370,751
i)	Brick Manufacturing	MT	-	-	-	-	-
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	548,150	67,531	37,945	22,460**	676,086
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area (specify) : Traders	MT	17,680	20,000	20,000	20,000	77,680
	Total Ash Utilisation	MT	913,000	405,316	379,454	426,747**	2,202,197
C	Ash Utilisation percentage	%	231%	108%	100%	95%	138%

**There is some anticipated lag in bottom Ash utilization and generation in plant. Unutilised bottom ash in Q4 (2019-20) will be utilised in next financial year (2020-21)

Name of the Authorised Person: Navin Chaturvedi

Signature:

E-mail id : navin.chaturvedi@clpindia.in

Phone no. : 9996786113

*Note: TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N.35

Format for Ash Utilisation Action Plan

1. Name of the Unit: **O P Jindal Super Thermal Power Plant-Stage-I (Jindal Power Limited)**
2. Power Generation Capacity: **(4X250 MW)**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Generation (T)	Utilization (T)	% of utilization
2017-18	1395031.35	1054551.54	**75.59**
2018-19	1062635.14	1086015.32	**102.20**

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	276086.3	413424	422611.2	418017.6	1530139
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	-	-	-	-	-
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development	MT	43750.63	73600	92000	91000	300350.6
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	43172	138000	138000	136500	455672
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area (specify) Ash dyke raising/others	MT	192000	100000	240000	245000	777000
	Total Ash Utilisation	MT	278922.6	311600	470000	472500	1533023
C	Ash Utilisation percentage	%	101.03	75.37	111.21	113.03	100.19

Name of the Authorised Person: **B. Govinda Rao**

Signature: B. Govinda Rao

E-mail id: jpl.emd@jindalpower.com

Phone no. : 9329445056

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Format for Ash Utilisation Action Plan

1.Name of the Unit: **O P Jindal Super Thermal Power Plant-Stage-II (Jindal Power Limited)**

2.Power Generation Capacity: **4X600 MW TPP**

3.Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Generation (T)	Utilization (T)	% of utilization
2017-18	2272734.45	1749417.86	**76.97**
2018-19	2303607.49	2351192.11	**102.07**

4.Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	722154.22	660960	675648	668304	2727066
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	7634.74	12000	12000	12000	43634.74
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	246118.09	300000	322000	455000	1323118
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area (specify) Ash dyke raising/others	MT	483000	175000	450000	260000	1368000
	Total Ash Utilisation	MT	736752.83	487000	784000	727000	2734753
C	Ash Utilisation percentage	%	102.02	73.68	116.04	108.78	100.28

Name of the Authorised Person: **B. Govinda Rao**

Signature: B. Govinda Rao

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Phone no.: 9329445056

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S.N.37

22

KSK
Power from knowledge

Format for Ash Utilisation Action Plan

Name of the Unit: **KSK Mahanadi Power Company Limited.**

Power Generation Capacity: **3600 MW (1800 MW Operational and 1800 MW under construction).**

Unit-III	**FY2019-20**	
Commercial Operation Date: 14.8.2013	Years of Operation: VIth Year	As per fly ash Management rules
Unit-IV:		Fly ash Utilization Target: 100%
Commercial Operation Date: 26.08.2014	Years of Operation: Vth Year	
Unit-II		Fly ash Utilization Target: 100%
Commercial Operation Date: 26.08.2018	Years of Operation: 2nd year	Fly ash Utilization Target: 70

FY2019-20

S.N.	Description	Unit	Q1 (Apr, May, June-2019)			Q2 (Jul, Aug, Sept-2019)			Q3 (Oct, Nov, Dec-2019)			Q4 (Jan, Feb, Mar-2020)			Total Fly Ash Utilisation in FY 2019-20
			Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	
A	Ash Generation (Fly Ash + Bed Ash)	MT	110530	253881	254863	29460	161602	184610	283500	283500	283500	283500	283500	283500	2695946
B	Ash Utilisation	MT	110530	253881	183086	29460	161602	146265	283500	283500	283500	283500	283500	283500	2585823
i)	Brick Manufacturing	MT	0	667	21	0	0	0	1000	1000	1000	1000	1000	1000	6688
ii)	Ready Mix Concrete	MT	100583	175551	7946	26808	106044	5484	178605	178605	178605	178605	178605	178605	1494046
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	246	0	0	0	0	0	0	0	246
iv)	Road Construction	MT	0	0	0	0	431	0	0	0	0	0	0	0	431
v)	Filling of abandoned stone quarry	MT	0	54814	152181	0	40336	124166	75545	75545	75545	75545	75545	75545	824767
vi)	Mines void filling	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
viii)	If any other area (specify)- Bottom Ash storage at Dyke	MT	9947	22849	22938	2651	14545	16615	28350	28350	28350	28350	28350	28350	259645
	Total Ash Utilisation	MT	110530	253881	183086	29460	161602	146265	283500	283500	283500	283500	283500	283500	2585823
C	Ash Utilisation percentage	%	100%	100%	72%	100	100	79	100	100	100	100	100	100	95.91

Preview

KSK
Power from knowledge

FY2020-21

Unit-III		**As per fly ash Management rules**
Commercial Operation Date: 14.8.2013	Years of Operation: VIIth Year	Fly ash Utilization Target: 100%
Unit-IV:		
Commercial Operation Date: 26.08.2014	Years of Operation: VIth Year	Fly ash Utilization Target: 100%
Unit-II		
Commercial Operation Date: 26.08.2018	Years of Operation: 3rd year	Fly ash Utilization Target: 90%

FY2020-21

S.N.	Description	Unit	Q1 (Apr, May, June-2020)			Q2 (Jul, Aug, Sept-2020)			Q3 (Oct, Nov, Dec-2020)			Q4 (Jan, Feb, Mar-2021)			Total Fly Ash Utilisation in FY 2018-19
			Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	Unit-3	Unit-4	Unit-2	
A	Ash Generation (Fly Ash + Bed Ash)	MT	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	3402000
B	Ash Utilisation	MT	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	3402000
i)	Brick Manufacturing	MT	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000
ii)	Ready Mix Concrete	MT	178605	178605	178605	178605	178605	178605	178605	178605	178605	178605	178605	178605	2143660
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
iv)	Road Construction	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	75545	75545	75545	75545	75545	75545	75545	75545	75545	75545	75545	75545	906540
vi)	Mines void filling	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
viii)	If any other area (specify)- Bottom Ash storage at Dyke	MT	28350	28350	28350	28350	28350	28350	28350	28350	28350	28350	28350	28350	340200
	Total Ash Utilisation	MT	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	283500	3402000
C	Ash Utilisation percentage	%	100	100	100	100	100	100	100	100	100	100	100	100	100

Name of the Authorised Person: **Dr. M.V.Rama Narasimhacharyulu**
Signature : .....
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Phone no. : **09391371293**

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Format for Ash Utilisation Action Plan

1. Name of the Unit: Lalitpur Power Generation Company Limited
2. Power Generation Capacity: 3x660 MW Super critical TPP
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Date of Commissioning

Unit 1	26.03.2016
Unit 2	08.01.2016
Unit 3	01.04.2016

Ash Utilization	Year	Target % Ash Utilization	Ash Generation (MT)	Ash Utilization (MT)	% Utilization
1st Year	2016-17	50	865487	589328	**68.1**
2nd Year	2017-18	70	1702566	1462937	**85.9**
3rd year	2018-19	90	1133435	1179541	**104.1**

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S. N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	467018	450000	550000	550000	2017018
B	Ash Utilisation	MT	472327	470000	620000	620000	2182327
i.	Brick Manufacturing	MT	9106	10000	20000	20000	59106
ii.	Ready Mix Concrete	MT	–	–	–	–	–
iii.	Low Lying area filling/ Area Development	MT	256935	215000	325000	325000	1121935
iv.	Road Construction	MT	–	–	–	–	–
v.	Filling of abandoned stone quarry	MT	–	–	–	–	–
vi.	Mines void filling	MT	–	–	–	–	–
vii.	Agriculture Utilisation	MT	–	–	–	–	–
viii	Cement Manufacturer	MT	206286	245000	275000	275000	1001286
	Total Ash Utilisation	MT	472327	470000	620000	620000	2182327
C	Ash Utilisation percentage	%	**101.1**	**104.4**	**112.7**	**112.7**	**108.2**

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Name of the Authorised Person: Dr AV Singh, Chief Sustainability Officer

Signature

E-mail id : avsingh@lpgcl.com

Phone no. : +91 120 4045319

Note** : *LPGCL is committed towards creating a clean and safe environment in and around the manufacturing facility and also **to maintain 100% ash utilization in subsequent years.

S.N 39

Action Plan for 2019-20 for 100 % Utilization

In addition of existing utilization, following areas, as per the statutory requirements have been identified to increase fly ash utilization in 2019-20.

TPS	Areas of Utilization	Status of NOC from Mine Deptt.	Status of NOC from MPPCB	Quantity (LMT)	Utilization %
ATPS Chachai	▪ Low laying ▪ Road Embankments	Not required ---------	Appl. submitted on 29/03/2019 -----	0.60 0.60	100%
SGTPS BRS	Low-Lying areas	-----	Appl. submitted on 08/04/2019	5.0	100%
STPS Sarni	•WCL Mine (filling started) • 4 stone query mines	-------- Obtained on 22/03/2019	---------- Appl submitted on 30/03/2019	0.30 5.57	100 %
SSTPP Khandwa (I)	Stone query mine	obtained on 08/02/2019	Obtained on 28/03/2019	11.2	70-80%
SSTPP Khandwa (II)	Disposal through new Ash silos w.e.f. May-June-19.			10.0	50 % (Ist Year utilization)

Note:-The proposals for transportation of fly ash to mines / roads / low-lying areas from all above TPSs shall be finalized by June-July 19'.

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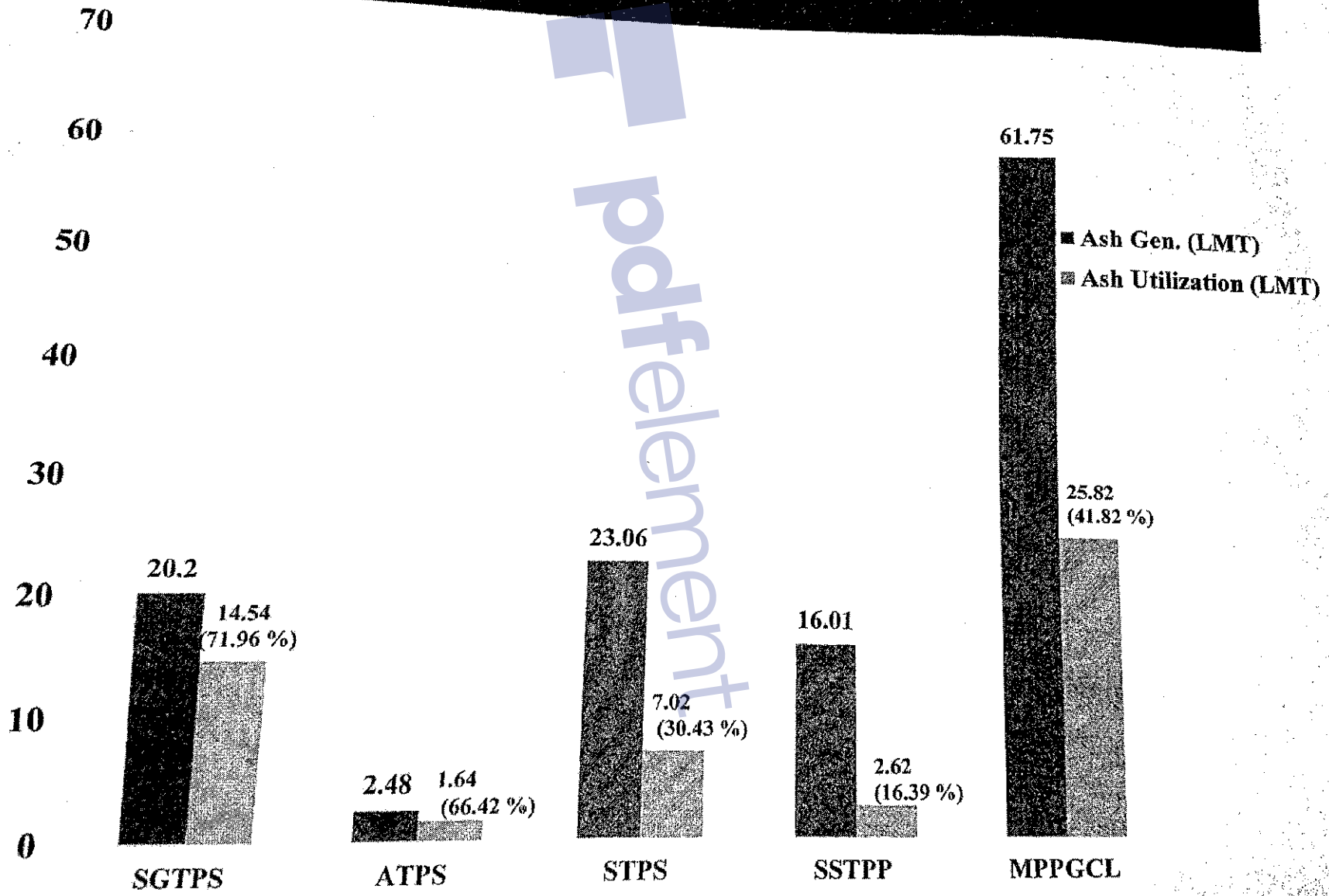
Fly Ash Gen. & Utilization in FY-2018-19



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S.N. 40

Format for Ash Utilization Action Plan

40

1. Name of the Unit: Bhusawal Thermal Power Station MSPGCL MAHARASHTRA
2. Power Generation Capacity: 1210 MW
3. Fly Ash generation and utilization in 2019-20:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	468352.79				
B	Ash Utilization	MT					
i)	Brick Manufacturing (SSI)	MT	38217.40				
ii)	Ready Mix Concrete/Cement Industries	MT	228398.52				
iii)	Low Lying Area Filling / Area Development	MT	-				
iv)	Road Construction	MT	-				
v)	Filling of abandoned stone quarry	MT	-				
vi)	Mines void filling	MT	-				
vii)	Agriculture Utilization	MT	7770				
viii)	If any Other (Bricks from Pond Ash)	MT	29295				
	If any Other (Ash Dyke raising)	MT	141365				
	Total Ash Utilization	MT	445045.92				
C	Ash Utilization percentage	%	95.02				

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Name of Authorized person: Mr. R. L. Kachhavah

Signature: 16.07.19

Ex. Engineer (Tech.)
M.S.P.G.C.L., B.T.P.S.,
Deepnagar-425307

E-mail id: ravi.kachhava@gmail.com

Phone no.: 8411956730

GHTP, Dehra Mohabbat S.N.4) Sheet-2

Quarterly Utilization plan for 2019-20 & 2020-21

Quarter (Period) 2019-20	% utilization Target
1st (April to June)	85%
2nd (July to Sept.)	90%
3rd (Oct. to Dec.)	95%
4th (Jan. to March)	100%

Quarter (Period) 2020-21	% utilization Target
1st (April to June)	100%
2nd (July to Sept.)	100%
3rd (Oct. to Dec.)	100%
4th (Jan. to March)	100%

pdfelement

Remove Watermark Now

(6) S.N.42 (42)

Remove Watermark Now

Format for Ash Utilisation Action Plan

1. **Name of the Unit: Prayagraj Power Generation co. Ltd. Bara, Prayagraj(U.P.)**
2. **Power Generation Capacity: 3×660 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	1006296	831218	82.60
FY 2018-19	134898	125544	93.06

4. Fly Ash Utilisation Action Plan(quarter wise)* 2019-20.

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	(Fly-384972+ Bed-96244)	(Fly -462273+ Bed-115567)	(Fly-426000+ Bed-106500)	(fly-546000+ Bed-136500)	
B	Fly Ash Utilisation	MT	(Actual)	(Actual)	(Estimated)	(Estimated)	
i)	Brick Manufacturing	MT					
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT		117300	50000	81000	248300
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement Industries	MT	305557	207738	340000	405000	1258295
ix)	Ash Dyke rinsing	MT	79325	137212	36000	60000	312537
	Total Fly Ash Utilisation	MT	384882	462250	426000	546000	1819132
C	Ash Utilisation percentage	%	99.97%	99.99%	100%	100%	100%

Signature: 2.10.19

Name of the Authorised Person: A.K. Jain

E-mail id: ajaykumar.jain@jalindia.co.in

Phone no. : 7080310820

***Note: TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.**

pdfelement

13/ 0 /

S.N.43 (43)

Format for Ash Utilisation Action Plan

1. Name of the Unit: Rosa Power Supply Co. Ltd
2. Power Generation Capacity: 4x300MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):
4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1		Q2		Q3		Q4		FY	FY	Total Fly Ash Utilisation in FY 2019-20
			2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	Q1
A	Ash Generation (Fly Ash + Bed Ash)	MT	480813	300863	395176	263877	401851	179293	341657	78339	1619497	822372	372063
B	Ash Utilisation	MT											
i)	Brick Manufacturing	MT	1475	20308	3388	14418	9027	12738	20742	7334	34632	54798	9928
ii)	Ready Mix Concrete	MT	210	210	0	90	275	166	470	284	955	750	419
iii)	Low Lying area filling/ Area Development	MT	50263	18645	50665	10635	66395	22449	62997	44710	230320	96439	46651
iv)	Road Construction	MT	0	0	0	0	0	0	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0	0	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0	0	0	0	0	0	0
vii)	Agriculture Utilisation	MT	20000	11265	30000	7090	30000	14966	32843	0	112843	33321	0
viii)	If any other area (specify)	MT									0	0	
a)	Ash dyke rising	MT	102000	0	0	96990	0	146336	0	0	102000	243326	0
b)	Cement Manufacturing	MT	125576	215128	165459	153318	238484	105971	213388	52210	742907	526627	229502
c)	Cenosphere	MT	0	0	0	0	0	0	0	0	0	0	45
	Total Ash Utilisation	MT	299524	265556	249512	282541	344181	302626	330440	104537	1223657	955260	286545
C	Ash Utilisation percentage	%	62.29%	88.26%	63.13%	107.07%	85.64%	168.78%	96.71%	133.44%	76%	116%	77%

Name of the Authorised Person: (K Chandra Sekhar)
Signature: [signature]
E-mail id : Kalluri chandra Sekhar@relianceada.com
Phone no. : 7499183233

*Note :
TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Rosa Power Supply Company Limited

S.N. 44

Format for Ash Utilisation Action Plan

1. Name of the Unit: Spectrum Coal & Power Ltd. 2X50 MW TPP
2. Power Generation Capacity: 100 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	2017-18	2018-19
Fly ash generation (MT)	667942	716870
Fly ash utilisation (MT)	579358	551626

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	160567	150900	153900	152119	617486
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	4149	4149	4149	4149	16596
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT	156417	146751	146751	146751	596670
iv)	Road Construction	MT					0
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					0
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify)	MT					0.00
	Total Ash Utilisation	MT	160566	150900	150900	150900	
C	Ash Utilisation percentage	%	100	100	100	100	

Name of the Authorised Person: Tushar Ahlawat
Signature:
E-mail id :tushar.ahlawat@acbindia.com
Phone no. : 9654129396

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Irrelevant

S.N.45

TATA

JPP/GMO/82/19
Date: 24-4-19

To,
Sri. Ritesh Kumar Singh,
Joint Secretary,
Ministry of Environment, Forests & Climate Change,
Indira Paryavaran Bhavan, Ali Ganj,
Jorbagh Road,
New Delhi,
Delhi - 10003.

Sub: – Submission of Ash Utilization Plan for FY 2019-20.

Ref: Joint Committee for Implementation of action plan to achieve 100% Fly Ash Utilization by TPPs held on 18-04-2019 at Teesta Conference Hall, First Floor, Vayu Block, Indira Paryavaran Bhawan, Jorbagh Road, Aliganj, New Delhi - 110003.

Dear Sir,

We are submitting our plan for 100% ash utilization for the period April 2019 to March 2020 pertaining to 1 X 67.5 MW (Unit 1), 2 X 120 MW (Unit 2&3), 1 X 120 MW (Unit 4) and 1 X 120 MW (Unit 5) at Tata Power, Jojobera Power Plant, Jamshedpur, Jharkhand. The detail is attached as Annex - I.

Thanking You,

Yours sincerely,
For The Tata Power Co. Ltd.

(Vijayant Ranjan)
CEO - IEL & Chief -Jamshedpur Operations

CC: Sh. A.N.Singh - Additional Director, MoEF & CC

enclosure

TATA POWER
The Tata Power Company Limited
Jojobera Power Plant, Jamshedpur - 831016
Tel 91 657 2276878, 6511543
Registered Office Bombay House 24 Homi Mody Street Mumbai 400 001

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Annex: I

Action plan to achieve 100% Ash Utilization for the period April 2019 to March 2020

(Target Ash Utilization in MT)

	Q1(April'19-June'19	Q2 (July 19-Sept'19)	Q3 (Oct'19 - Dec'19)	Q4 (Jan'20 - March'20)	FY 20
Total Fly Ash Generation in MT (Indicative)	302504	308618	287762	288119	1187001
% Utilization in Cement/ Bricks/ Ready mix Concrete/ Pigment/ Asbestos and allied Industries	72.2	71.5	74.6	72.8	72.7
% Utilization for reclamation of low lying areas	27.8	28.5	25.4	27.2	27.3
Total fly ash Utilization (%)	100	100	100	100	100

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S.N. 46

Format for Ash Utilisation Action Plan

1. Name of the Unit : Mettur Thermal Power Station - II
2. Power Generation Capacity : 1x600 MW
3. Fly Ash generation and utilization in previous two years (2017-18)
4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2017-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	77128.144	160763.03	160794.210	215747.462	
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	10887.200	16453.320	15464.680	36153.820	78959.020
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling / Area Development	MT	Nil	Nil	Nil	Nil	Nil
iv)	Road Construction	MT	Nil	Nil	Nil	Nil	Nil
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	Nil	Nil	Nil	Nil
viii)	If any other area (Cement Company)	MT	52988.180	69529.380	74449.960	102622.100	299589.620
ix	Bottom Ash	MT	Nil	Nil	Nil	3991.000	3991.000
	Total Ash Utilisation	MT	63875.380	85952.700	89914.640	142766.920	378548.640
C)	Ash Utilisation percentage	%	86.07	69.38	71.96	77.25	76%

Name of the Authorized Person : **Er. K. Natarajan, M.Tech.,**

Signature : For [illegible]

E-mail id : cemtps2@tnebnet.org

Phone no. : 04298 – 225451

***Note :**

TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

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Format for Ash Utilisation Action Plan

46

1. Name of the Unit : Mettur Thermal Power Station - II
2. Power Generation Capacity : 1x600 MW
3. Fly Ash generation and utilization in previous two years (2018-19)
4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	235726.278	121789.588	179475.836	173151.789	
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	33203.860	8638.460	29148.680	15979.320	86970.320
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling / Area Development	MT	Nil	Nil	Nil	Nil	Nil
iv)	Road Construction	MT	Nil	Nil	Nil	Nil	Nil
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	Nil	Nil	Nil	Nil
viii)	If any other area (Cement Company)	MT	85116.300	73574.160	106015.620	116434.120	381140.200
ix)	TANCEM	MT	1436.880	3174.280	7912.980	8285.500	20809.640
x)	Bottom Ash	MT	2397.940	6804.980	9094.140	8189.220	26486.280
	Total Ash Utilisation	MT	120718.100	89017.600	144258.440	140602.660	488920.160
C)	Ash Utilisation percentage	%	62.95	72.40	93.23	92.73	80 %

Name of the Authorized Person : **Er. K. Natarajan, M.Tech.,**

Signature : For 19/11/2019

E-mail id : cemtps2@tnebnet.org

Phone no. : 04298 – 225451

***Note :**

TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

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Format for Ash Utilisation Action Plan

1. Name of the Unit : Mettur Thermal Power Station - II
2. Power Generation Capacity : 1x600 MW
3. Fly Ash generation and utilization in previous two years (2019-20)
4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	259298.905	133968.546	197423.419	190466.967	
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	36524.240	9502.300	32063.540	17577.250	95667.330
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling / Area Development	MT	Nil	Nil	Nil	Nil	Nil
iv)	Road Construction	MT	Nil	Nil	Nil	Nil	Nil
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	Nil	Nil	Nil	Nil
viii)	If any other area (Cement Company)	MT	218556.370	113789.070	146652.070	154767.520	633765.030
ix)	TANCEM	MT	1580.560	3491.700	8704.250	9114.050	22890.560
x)	Bottom Ash	MT	2637.730	7485.470	10003.550	9008.140	29134.890
	Total Ash Utilisation	MT	259298.905	133968.546	197423.419	190466.967	752322.920
C)	Ash Utilisation percentage	%	100	100	100	100	100%

Name of the Authorized Person : **Er. K. Natarajan, M.Tech.,**

Signature : For Chief Engr

E-mail id : cemtps2@tnebnet.org

Phone no. : 04298 – 225451

***Note :**

TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

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S.N. 47

Format for Ash Utilization Action Plan

1. Name of the Unit: Kakatiya Thermal Power Project -I / TSGENCO
2. Power Generation Capacity: 500 MW
3. Fly ash generation and utilisation in previous two years :

FY	2017-18	2018-19
Gen (in MT)	8,70,278.20	8,08,802.60
Utilization (in MT)	6,80,194.39	8,20,859.11

4. Fly Ash Utilisation Action Plan (quarter wise):

S.No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,07,885.30	2,31,840.00	2,31,840.00	2,29,320.00	
B	Ash Utilisation	MT	2,00,063.34	2,31,840.00	2,37,880.00	2,31,854.00	**9,01,637.34**
i)	Brick Manufacturing	MT	27,924.21	46,368.00	50,000.00	45,864.00	**1,70,156.21**
ii)	Ready Mix Concrete	MT	31,282.00	34,776.00	34,776.00	34,398.00	**1,35,232.00**
iii)	Low Lying area filling/ Area Development	MT		11,592.00	14,000.00	14,000.00	**39,592.00**
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement Industries	MT	86,912.00	92,736.00	92,736.00	91,728.00	**3,64,112.00**
ix)	Ash Dyke raising	MT	23,093.13	23,184.00	23,184.00	22,932.00	**92,393.13**
x)	Levelling & Grading	MT	30,852.00	23,184.00	23,184.00	22,932.00	**1,00,152.00**
	Total Ash Utilisation	MT	**2,00,063.34**	**2,31,840.00**	**2,37,880.00**	**2,31,854.00**	**9,01,637.34**
C	Ash Utilisation percentage	%	**96.24**	**100**	**102.61**	**101.11**	**100.08**

Note: Almost 100% ash utilization is achieved. 100 % ash utilization will be maintained as per action plan in future quarters.

Name of the Authorized Person : Sri. M. Siddaiah, Chief Engineer/KTPP

Signature:

Email ID: ce.ktpp@tsgenco.co.in
Phone no. 08713- 244002

Chief Engineer / CMA
Kakatiya Thermal Power Project

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(19) S.N. 50

Format for Ash Utilisation Action Plan

1. Name of the Unit: M/s Talwandi Sabo Power ltd.
2. Power Generation Capacity: 1980 MW (3x660 MW)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly ash generation (MT)	Fly ash utilization (MT)
2018-19	2291110	2498819
2017-18	2123473	1546836

109 %
73 %

4. Fly Ash Utilisation Action Plan (quarter wise) * 2019-20 and 2020-21:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	628626	673000	646000	618800	2566426
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	67102	52000	49000	50000	218102
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	0	45000	32000	27000	104000
iv)	Road Construction	MT	108035	161000	115000	120000	629035
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	439536*	281000*	470000*	475000*	1665536*
ix)	If any other area (specify)	MT	0**	0**	100000**	100000**	200000**
	Total Ash Utilisation	MT	614673	539000	766000	772000	2816673
C	Ash Utilisation percentage	%	98	80	119	125	110

* Cement manufacturing
** Ash dyke height rising

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S.N. 51

Format for Ash Utilisation Action Plan

1. Name of the Unit: APCPL-INDIRA GANDHI SUPER THERMAL POWER PROJECT
2. Power Generation Capacity: 3 X 500 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

S.No.	FY	Ash Generation (MT)	Ash Utilization (MT)	Percentage Utilization
1	2017-18	1619878	1116633	69.93
2	2018-19	1503370	1554498	103.4

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	**198745** (158994 + 39751)	**362000** (289600 + 72400)	**369000** (295200 + 73800)	**428000** (342400 + 85600)	**1357745** (1086194 + 271551)
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	**118935** (43150 + 75785)	**97920** (57920 + 40000)	**109040** (59040 + 50000)	**118480** (68480 + 50000)	**444375** (228590 + 215785)
ii)	Ready Mix Concrete	MT	**212708** (115694 + 97014)	**281680** (231680 + 50000)	**296160** (236160+ 60000)	**333920** (273920 +60000)	**1124468** (857454 + 267014)
iii)	Low Lying area filling/ Area Development	MT	NIL	NIL	NIL	NIL	NIL
iv)	Road Construction	MT	NIL	NIL	NIL	NIL	NIL
v)	Filling of abandoned stone quarry	MT	NIL	NIL	NIL	NIL	NIL
vi)	Mines void filling	MT	NIL	NIL	NIL	NIL	NIL
vii)	Agriculture Utilisation	MT	NIL	NIL	NIL	NIL	NIL
viii)	If any other area (specify)	MT	NIL	NIL	NIL	NIL	NIL
	Total Ash Utilisation	MT	331643	379600	405200	452400	1565843
C	Ash Utilisation percentage	%	166.87	104.86	109.8	105.7	115.32

Name of the Authorised Person: R.K CHANDER 17/7

Signature:

E-mail id : rkchander@ntpc.co.in

Phone no. : 8941624697

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve

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S.N. 52

Annexure - II

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Format for Ash Utilisation Action Plan

1. Name of the Unit: BALLARI THERMAL POWER STATION
2. Power Generation Capacity:1700 MW (500X2,700X1)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Ash Generation (Fly Ash + Bed Ash) in MT	Utilization in MT	Percentage of ash utilization
2017-18	889059.00	445649.00	50.13
2018-19	996587.00	732919.00	73.54

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	291362.00	343368.00	343368.00	339264.00	1317362.00
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	10648.00	20000.00	20000.00	20000.00	70648.00
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area(cement)	MT	269157.00	323368.00	323368.00	319264.00	1235157.00
	Total Ash Utilisation	MT	279805.00	343368.00	343368.00	339264.00	1305805.00
C	Ash Utilisation percentage	%	96.03	100.00	100.00	100.00	99.12

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Name of the Authorised Person: Sri. Narendra Kumar, I/c ED(BTPS)

Signature:.....

E-mail id : edbtps@gmail.com, edbtps@karnatakapower.com

Phone no. : 08392-288608(LL), 9448290789

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Remove Watermark Now

Format for Ash Utilisation Action Plan

1. Name of the Unit: BALLARI THERMAL POWER STATION
2. Power Generation Capacity:1700 MW (500X2,700X1)
3. Fly ash generation and utilisation in previous three years (2017-18 ,2018-19 & 2019-20):

Year	Ash Generation (Fly Ash + Bed Ash) in MT	Utilization in MT	Percentage of ash utilization
2017-18	889059.00	445649.00	50.13
2018-19	996587.00	732919.00	73.54
2019-20	1317362.00	1305805.00	99.12

4. Fly Ash Utilisation Action Plan-2020-21 (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	342000.00	343368.00	343368.00	339264.00	1368000.00
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	20000.00	20000.00	20000.00	20000.00	80000.00
ii)	Ready Mix Concrete	MT	-	-	-	-	-
iii)	Low Lying area filling/ Area Development	MT	-	-	-	-	-
iv)	Road Construction	MT	-	-	-	-	-
v)	Filling of abandoned stone quarry	MT	-	-	-	-	-
vi)	Mines void filling	MT	-	-	-	-	-
vii)	Agriculture Utilisation	MT	-	-	-	-	-
viii)	If any other area(cement)	MT	322000.00	340536.00	357704.00	387116.00	1288000.00
	Total Ash Utilisation	MT	342000.00	360536.00	377704.00	407116.00	1487356.00
C	Ash Utilisation percentage	%	100.00	104.99	109.99	119.99	108.71

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Name of the Authorised Person: Sri. Narendra Kumar, I/c ED(BTPS)

Signature:

E-mail id : edbtps@karnatakapower.com , edbtps@gmail.com.

Phone no. : 08392-288608, 9448290789.

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

S.N. 53

Format for Ash Utilisation Action Plan (2019-20)

1. Name of the Unit: Raichur Thermal Power Station
2. Power Generation Capacity: 1720 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Fly ash generated in MT	Fly ash lifted in MT	Fly ash Utilization in %
2017-18	2401181	1373193	57.18
2018-19	2216112	1554521	70.14

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	7,66,704.10	5,44,431	5,44,431	5,44,431	24,00,000
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	88,873.78	95,000	95,000	95,000	3,73,873
ii)	Ready Mix Concrete	MT	--	--	--	--	--
iii)	Low Lying area filling/ Area Development	MT	--	--	--	--	--
iv)	Road Construction	MT	690.00	2,000	2,000	2,000	6,690
v)	Filling of abandoned stone quarry	MT	--	12,500	12,500	12,500	37,500
vi)	Mines void filling	MT	--	6,250	6,250	6,250	18,750
vii)	Agriculture Utilisation	MT	--	--	--	--	--
viii)	If any other area (Cement industries, Fly ash based products, etc)	MT	3,83,690.5	4,27,500	4,27,500	4,27,500	16,66,190
	Total Ash Utilisation	MT	4,73,254.28	5,43,250	5,43,250	5,43,250	21,03,003
C	Ash Utilisation percentage	%	61.72	99.78	99.78	99.78	87.62

Name of the Authorised Person: Sri. S. K. Srinivasa

Signature:

E-mail id : Semm3rtps@karnatakapower.com

Phone no. : 9449596543

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Format for Ash Utilisation Action Plan (2020-21)

1. Name of the Unit: Raichur Thermal Power Station
2. Power Generation Capacity: 1720 MW
3. Fly ash generation and utilisation in previous two years (2017-18, 2018-19 and 2019-20):

Year	Fly ash generated in MT	Fly ash lifted in MT	Fly ash Utilization in %
2017-18	2401181	1373193	57.18
2018-19	2216112	1554521	70.14
2019-20	24,00,000	21,03,003	87.62

4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	5,54,028.00	5,54,028.00	5,54,028.00	5,54,028.00	22,16,112.00
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	95,000.00	95,000.00	95,000.00	95,000.00	3,80,000.00
ii)	Ready Mix Concrete	MT	--	--	--	--	--
iii)	Low Lying area filling/ Area Development	MT	--	--	--	--	--
iv)	Road Construction	MT	2,000.00	2,000.00	2,000.00	2,000.00	8,000.00
v)	Filling of abandoned stone quarry	MT	12,500.00	12,500.00	12,500.00	12,500.00	50,000.00
vi)	Mines void filling	MT	6,250.00	6,250.00	6,250.00	6,250.00	25,000.00
vii)	Agriculture Utilisation	MT	--	--	--	--	--
viii)	If any other area (Cement industries, Fly ash based products, etc)	MT	4,38,278.00	4,38,278.00	4,38,278.00	4,38,278.00	17,53,112.00
	Total Ash Utilisation	MT	5,54,028.00	5,54,028.00	5,54,028.00	5,54,028.00	22,16,112.00
C	Ash Utilisation percentage	%	100.00	100.00	100.00	100.00	100.00

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Name of the Authorised Person: Sri. S. K. Srinivasa
Signature:
E-mail id : Sgmm3rtps@karnatakapower.com
Phone no. : 9449596543

Note: Apart from the bottom ash quantity of RTPS, the Yermarus TPS bottom ash quantity is also sent to ash pond of RTPS. The bottom ash quantity of YTPS would be accounted as YTPS ash utilization.

AMARKANTAK S.N. 54

Action Plan with time frame for 100 %Utilization of Fly ash

TPS	Action Plan	Time Frame
ATPS	Cement & brick manufacturing / Road Embankments / SECL mines	
STPS	Cement & brick manufacturing / Road Construction / Low-Lying areas / Stone Queries / WCL mine filling	
SGTPS	Cement & brick manufacturing / Stone Queries / Road Construction / Low-Lying areas	
SSTPP –Stage-I	Cement & brick manufacturing / Road Embankments/ Low-Lying areas	
SSTPP- Stage-II Commissioned in 03/2019)	Cement & brick manufacturing / as base material in new bund construction /Brick Manufacturing unit in plant premises	

Proposed

SHREE SINGAJI S.N. 55

Action Plan with time frame for 100 %Utilization of Fly ash

TPS	Action Plan	Time Frame
ATPS	Cement & brick manufacturing / Road Embankments / SECL mines	
STPS	Cement & brick manufacturing / Road Construction / Low-Lying areas / Stone Queries / WCL mine filling	
SGTPS	Cement & brick manufacturing / Stone Queries / Road Construction / Low-Lying areas	
✓ SSTPP –Stage-I	Cement & brick manufacturing / Road Embankments/ Low-Lying areas	
✓ SSTPP- Stage-II Commissioned in 03/2019)	Cement & brick manufacturing / as base material in new bund construction /Brick Manufacturing unit in plant premises	

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S.N.56

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Format for Ash Utilization Action Plan

- Name of the Unit: M/s Jhabua Power Ltd
- Power Generation Capacity: 1 x 600 MW
- Fly ash generation and utilization in previous two years (2017-18 and 2018-19): Attached

FLY ASH GENERATION AND UTILIZATION IN 2017-18

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash generation & Utilization in FY 2017-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	102973	43180	135015	191242	472410
B	Ash Utilization	MT	60870	25726	88065	142040	316701
i)	Brick Manufacturing	MT	1716	2122	7404	14582	25824
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	20595	8636	27003.6	39419.36	95654
iv)	Road Construction	MT	7940	3186	11995	20378	43499
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilization	MT	0	0	0	0	0
viii)	Cement Manufacturing	MT	28600	11046	34782	57152	131580
ix)	Roof Sheeting	MT	2019	736	6882	10509	20146
x)	Total Ash Utilization	MT	60870	25726	88065	142040	316701
C	Ash Utilization percentage	%	59	60	65	74	67

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FLY ASH GENERATION AND UTILIZATION IN 2018-19

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash generation & Utilization in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	155080	155453	185639	215192	**711365**
B	Ash Utilization	MT	101627	71987	138499	187573	**499687**
i)	Brick Manufacturing	MT	6463	10885	10578	14961	**42887**
ii)	Ready Mix Concrete	MT	0	0	0	0	**0**
iii)	Low Lying area filling/ Area Development	MT	31015	31091	37128	43038	**142273**
iv)	Road Construction	MT	7732	1056	1155	3499	**13443**
v)	Filling of abandoned stone quarry	MT	0	0	0	0	**0**
vi)	Mines void filling	MT	0	0	0	0	**0**
vii)	Agriculture Utilization	MT	0	0	0	0	**0**
viii)	Cement Manufacturing	MT	53021	28361	88902	126075	**296359**
ix)	Roof Sheeting	MT	3396	593	736	0	**4725**
x)	Total Ash Utilization	MT	101703	71987	138499	187573	**499687**
C	Ash Utilization percentage	%	65.58	46.31	74.61	87.17	**70.24**

- **Fly Ash Utilization Action Plan (quarter wise) *:**

FLY ASH GENERATION AND UTILIZATION IN 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly Ash+Bed Ash)	MT	223556	232148	232148	232148	**920000**
B	Ash Utilization	MT	142683	200168	200168	200168	**743187**
i)	Brick Manufacturing	MT	6537	8000	8000	8000	**30537**
ii)	Ready Mix Concrete	MT	0	0	0	0	**0**
iii)	Low Lying area filling/ Area Development	MT	44711	46430	46430	46430	**184001**
iv)	Road Construction	MT	8849	10000	10000	10000	**38849**

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v)	Filling of abandoned stone quarry	MT	0	0	0	0	**0**
vi)	Mines void filling	MT	0	0	0	0	**0**
vii)	Agriculture Utilization	MT	0	0	0	0	**0**
viii)	Cement Manufacturing	MT	82586	135738	135738	135738	**489800**
ix)	Roof Sheeting	MT	0	0	0	0	**0**
	Total Ash Utilization	MT	142683	200168	200168	200168	**743187**
C	Ash Utilization percentage	%	63.82%	86.22%	86.22%	86.22%	**80.78%**

FLY ASH GENERATION AND UTILIZATION IN 2020-21

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
A	Ash Generation (Fly Ash+Bed Ash)	MT	280000	280000	280000	280000	**1120000**
B	Ash Utilization	MT	142683	280000	280000	280000	**982683**
i)	Brick Manufacturing	MT	9000	9000	9000	9000	**36000**
ii)	Ready Mix Concrete	MT	0	0	0	0	**0**
iii)	Low Lying area filling/ Area Development	MT	56000	56000	56000	56000	**224000**
iv)	Road Construction	MT	10000	10000	10000	10000	**40000**
v)	Filling of abandoned stone quarry	MT	0	0	0	0	**0**
vi)	Mines void filling	MT	0	0	0	0	**0**
vii)	Agriculture Utilization	MT	0	0	0	0	**0**
viii)	Cement Manufacturing	MT	205000	205000	205000	205000	**820000**
ix)	Roof Sheeting	MT	0	0	0	0	**0**
	Total Ash Utilization	MT	280000	280000	280000	280000	**1120000**
C	Ash Utilization percentage	%	100.00%	100.00%	100.00%	100.00%	**100.00%**

Name of the Authorized Person: Sri Ghanshyam Raysen
Signature:
E-mail id : g.raysen@avanthapower.com
Phone no. : 9669074007

***Note :**

TPPs having fly ash utilization less than 85 % will be given two years time period and TPPs having utilizations more than 85% will be given one year time period to achieve 100 % fly ash utilization.

Constraint: 1. Intermittent operation of power plant due to coal unavailability.
2. Frequent bulker route diversion from one route to other route.
3. Distance between power plant and cement manufacturer is more than 300 Km.
4. Unavailability of abandoned stone quarry nearby the area.

S.N.57

NTECL

NTPC TAMILNADU ENERGY COMPANY LTD
(A JV of NTPC & TNEB)

Plan to Achieve 100% Ash Utilisation

YEAR WISE PLAN TO ACHIEVE 100% ASH UTILISATION

Methods of Ash Utilization (yearly) (in Lakh metric tons or LMT)	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Cement Industries		1.97	3.78	3.05	7.6	9.8
Fly Ash Bricks/ Blocks		0.69	2.43	2.52	3.35	5.0
Road construction	2.23	4.62	5.97	9.59	8.5	9.25
Total Ash Utilisation	2.23	7.28	12.18	15.16	19.45	24.05
Total Ash Generation	13.75	17.02	18.74	22.44	24.0	24.0
Yearly Ash Utilization	16.17%	42.76%	64.97%	67.53%	81.04%	100.2%

QUARTER WISE PLAN TO ACHIEVE 100% ASH UTILISATION

Ash Util in Lakh MT	2019-20					2020-21				
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total
Cement Industry	1.70	1.70	2.10	2.10	**7.6**	2.2	2.4	2.6	2.6	**9.8**
Fly Ash Bricks	0.75	0.60	1.00	1.00	**3.35**	1.25	1.25	1.25	1.25	**5.0**
Road Making	2.25	1.75	2.00	2.50	**8.5**	2.25	2.15	2.35	2.5	**9.25**
Total Ash Utilisat	**4.7**	**4.05**	**5.10**	**5.6**	19.45	**5.7**	**5.8**	**6.2**	**6.35**	**24.05**
Total Ash Gen	6.48	4.53	6.48	6.50	**24.0**	5.62	5.69	6.38	6.31	**24.0**
Percent age %	**72.53**	**89.4**	**78.70**	**86.15**	81.04	**101.42**	**101.93**	**97.17**	**100.63**	**100.2**

NAIR
Addl. General Manager (EMG&AU)
NTPC Tamilnadu Energy Company Ltd.
Vallur Thermal Power Project

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OPGC

Proposed Action Plan 100% Ash Utilization

S.N.	Description	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
A	Ash Generation	MT	1074965	1050000	1075000	1050000	1075000
B	Ash Utilization						
i)	Brick Manufacturing	MT	16506	20000	20000	25000	45000
ii)	Ready Mix Concrete /Cement/Asbestos	MT	23940	25000	25000	100000	200000
iii)	Low Lying area filling/ Area Development	MT	173903	120000	130000	100000	110000
iv)	Road Construction	MT	4720	15000	30000	30000	20000
v)	Abandoned stone quarry	MT	430000	500000	550000	530000	200000
vi)	Mines void filling	MT	0	0	0	0	500000
vii)	Agriculture Utilisation	MT	0	2000	2000	4000	5000
viii)	Others(Cenosphere)	MT	84	90	90	90	90
	Total Ash Utilization	MT	649153	682090	757090	789090	1080090
C	**Ash Utilization percentage**	%	**60**	**65**	**70**	**75**	**100**

Note: 100% utilization has been projected anticipating allotment of void mine to OPGC in the year 2020-21 and increase in demand from Cement manufacturing in the locality from the year 2022-23 onwards.

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S.N. 58

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Ash Util in 18-19 (%)	80.14

	ASH UTILIZATION PLAN 2019-20							
NAME OF STATION :NTPC Farakka					ANNUAL Target AU (%)		84.39	
TOTAL ASH Generation (Lakh Ton)				32				% AU
Month/ Area	Ash Generation (LMT)	Low Lying area Decelopment (MT)	CEMENT/RMC (MT)	BRICK/BLOCK (MT)	Roads/emabankment * (MT)	Others(Agriculture & others (MT)	Total (MT)	
Apr-19	2.75	70000	40000	5000	47000	5000	167000	60.73
May-19	2.70	60000	40000	5000	80000	5000	190000	70.37
Jun-19	2.90	60000	45000	5000	85000	5000	200000	68.97
Q-1	8.35	190000	125000	15000	212000	15000	557000	66.71
Jul-19	2.50	60000	30000	8000	85000	10000	193000	77.20
Aug-19	2.50	60000	30000	8000	95000	10000	203000	81.20
Sep-19	2.80	60000	30000	8000	95000	10000	203000	72.50
Q-2	7.80	180000	90000	24000	275000	30000	599000	76.79
Oct-19	2.55	80000	45000	10000	110000	5000	250000	98.04
Nov-19	2.55	80000	40000	8000	115000	5000	248000	97.25
Dec-19	2.55	80000	45000	8000	110000	5000	248000	97.25
Q-3	7.65	240000	130000	26000	335000	15000	746000	97.52
Jan-20	2.70	80000	50000	10000	110000	5000	255000	94.44
Feb-20	2.70	85000	50000	10000	110000	5000	260000	96.30
Mar-20	2.70	90000	50000	10000	120000	5000	275000	101.85
Q-4	8.10	255000	150000	30000	340000	15000	790000	97.53
TOTAL	**32**	**865000**	**495000**	**95000**	**1162000**	**75000**	**2692000**	**84.39**

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.
Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.
Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

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Ash Util in 18-19 (%)	80.14

	ASH UTILIZATION PLAN 2020-21							
NAME OF STATION :NTPC Farakka					ANNUAL Target AU (%)		100.00	% AU
TOTAL ASH Generation (Lakh Ton)				32				
Month/ Area	Ash Generation (LMT)	Low Lying area Decelopment (MT)	CEMENT/RMC (MT)	BRICK/BLOCK (MT)	Roads/emabankment * (MT)	Others(Agriculture & others (MT)	Total (MT)	
Apr-20	2.70	80000	60000	10000	110000	5000	265000	98.15
May-20	2.70	80000	60000	10000	113000	5000	268000	99.26
Jun-20	2.70	85000	65000	10000	110000	5000	275000	101.85
Q-1	8.10	245000	185000	30000	333000	15000	808000	99.75
Jul-20	2.50	60000	50000	8000	100000	10000	228000	91.20
Aug-20	2.50	60000	48000	8000	100000	10000	226000	90.40
Sep-20	2.80	70000	50000	8000	100000	10000	238000	85.00
Q-2	7.80	190000	148000	24000	300000	30000	692000	88.72
Oct-20	2.55	80000	65000	10000	110000	5000	270000	105.88
Nov-20	2.55	80000	65000	10000	110000	5000	270000	105.88
Dec-20	2.55	80000	65000	10000	110000	5000	270000	105.88
Q-3	7.65	240000	195000	30000	330000	15000	810000	105.88
Jan-21	2.70	80000	65000	10000	110000	5000	270000	100.00
Feb-21	2.70	80000	70000	10000	120000	5000	285000	105.56
Mar-21	2.70	90000	75000	10000	120000	5000	300000	111.11
Q-4	8.10	250000	210000	30000	350000	15000	855000	105.56
TOTAL	**32**	**925000**	**738000**	**114000**	**1313000**	**75000**	**3165000**	**100.00**

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.
Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.
Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

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S.N. 59

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ASH UTILIZATION PLAN 2019-20

NAME OF STATION : NTPC Mouda				AU achieved in 2018-19	90.21%					
ANNUAL ASH Generation (Ton)			3089000	ANNUAL ASH UTILIZAION (%)	93.01					
ANNUAL ASH UTILIZATION (MT)			2873000							
Month	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC(In MT)	BRICK/BLOCK (MT)	Roads/ Embankment (MT) *	Mine filling (MT)	Export (MT)	Others(Agriculture & others (MT)	Total (MT)	Quarterly % AU
Apr-19	259000	0	36000	90000	120000	0	0	5000	251000	
May-19	260000	0	42000	90000	120000	0	0	5000	257000	
Jun-19	260000	0	42000	90000	120000	0	0	5000	257000	
Q -1	779000	0	120000	270000	360000	0	0	15000	765000	98.20
Jul-19	250000	0	35000	55000	90000	0	0	5000	185000	
Aug-19	250000	0	35000	55000	90000	0	0	5000	185000	
Sep-19	250000	0	35000	55000	90000	0	0	5000	185000	
Q-2	750000	0	105000	165000	270000	0	0	15000	555000	74.000
Oct-19	260000	5000	45000	80000	120000	0	0	5000	255000	
Nov-19	260000	5000	42000	80000	120000	0	0	5000	252000	
Dec-19	260000	5000	42000	80000	120000	0	0	5000	252000	
Q-3	780000	15000	129000	240000	360000	0	0	15000	759000	97.31
Jan-20	260000	5000	45000	90000	120000	0	0	5000	265000	
Feb-20	260000	5000	42000	100000	110000	0	0	5000	262000	
Mar-20	260000	10000	42000	100000	110000	0	0	5000	267000	
Q -4	780000	20000	129000	290000	340000	0	0	15000	794000	101.79
TOTAL ASH UTILIZAION	**3089000**	**35000**	**483000**	**965000**	**1330000**	**0**	**0**	**60000**	**2873000**	93.01

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

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ASH UTILIZATION PLAN 20-21

NAME OF STATION : NTPC Mouda				AU achieved in 2018-19	90.21%					
ANNUAL ASH Generation (Ton)			3093000	ANNUAL ASH UTILIZAION (%)	100.00					
ANNUAL ASH UTILIZATION (MT)			3093000							
Month	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC/ Asbestos(In MT)	BRICK/BLOCK (MT)	Roads/ Embankment (MT) *	Mine filling (MT)	Export (MT)	Others(Agriculture & others (MT)	Total (MT)	Quarterly % AU
Apr-20	259000	0	45000	95000	120000	0	0	5000	265000	
May-20	260000	0	45000	95000	120000	0	0	5000	265000	
Jun-20	260000	0	45000	95000	120000	0	0	5000	265000	
Q-1	779000	0	135000	285000	360000	0	0	15000	795000	102.05
Jul-20	250000	0	35000	85000	90000	0	0	5000	215000	
Aug-20	250000	0	35000	85000	92000	0	0	5000	217000	
Sep-20	250000	0	35000	85000	95000	0	0	5000	220000	
Q-2	750000	0	105000	255000	277000	0	0	15000	652000	86.933
Oct-20	260000	5000	45000	110000	110000	0	0	5000	275000	
Nov-20	260000	5000	45000	110000	110000	0	0	5000	275000	
Dec-20	260000	5000	42000	110000	110000	0	0	5000	272000	
Q-3	780000	15000	132000	330000	330000	0	0	15000	822000	105.38
Jan-21	262000	5000	45000	110000	120000	0	0	5000	285000	
Feb-21	260000	5000	42000	110000	110000	0	0	5000	272000	
Mar-21	262000	10000	42000	100000	110000	0	0	5000	267000	
Q -4	784000	20000	129000	320000	340000	0	0	15000	824000	105.10
TOTAL ASH UTILIZAION	3093000	35000	501000	1190000	1307000	0	0	60000	3093000	100.00

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF & CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

Proposed Plan

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S.N. 61

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	% AU in 2018-19		64.29				
NTPC - Kudgi		AU Plan 2019-20			Target ANNUAL AU %	77.06	
Month	Ash Prodn (MT)	Cemnent and asbestos (MT)	Bricks & Blocks (MT)	Low Lying Area (MT)	Others(Agriculture & others (MT)	Total Utilisation (Tons)	% AU
Apr-19	169000	112000	300	0	5000	117300	69.41
May-19	169000	120000	300	0	5000	125300	74.14
Jun-19	169000	120000	300	0	5000	125300	74.14
Q-1	507000	352000	900	0	15000	367900	72.56
Jul-19	162000	110000	1000	5000	5000	121000	74.69
Aug-19	162000	110000	1000	5000	5000	121000	74.69
Sep-19	162000	110000	1000	5000	5000	121000	74.69
Q-2	486000	330000	3000	15000	15000	363000	74.69
Oct-19	200000	140000	3000	5000	5000	153000	76.50
Nov-19	200000	140000	3000	5000	5000	153000	76.50
Dec-19	200000	140000	3000	5000	5000	153000	76.50
Q-3	600000	420000	9000	15000	15000	459000	76.50
Jan-20	200000	140000	10000	5000	5000	160000	80.00
Feb-20	200000	150000	10000	5000	5000	170000	85.00
Mar-20	200000	150000	10000	5000	5000	170000	85.00
Q-4	600000	440000	30000	15000	15000	500000	83.33
Total	2193000	1542000	42900	45000	60000	1689900	77.06

* NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

Remove Watermark Now

	% AU in 2018-19		64.29				
NTPC - Kudgi		AU Plan 20-21			Target ANNUAL AU %	100.09	
Month	Ash Prodn (MT)	Cemnent and asbestos (MT)	Bricks & Blocks (MT)	Low Lying Area (MT)	Others(Agriculture & others (MT)	Total Utilisation (Tons)	% AU
Apr-20	170000	155000	10000	4000	5000	174000	102.35
May-20	170000	155000	10000	4000	5000	174000	102.35
Jun-20	170000	160000	10000	4000	5000	179000	105.29
Q-1	510000	470000	30000	12000	15000	527000	103.33
Jul-20	162000	130000	5000	7000	5000	147000	90.74
Aug-20	162000	130000	5000	7000	5000	147000	90.74
Sep-20	162000	130000	5000	7000	5000	147000	90.74
Q-2	486000	390000	15000	21000	15000	441000	90.74
Oct-20	200000	175000	10000	10000	5000	200000	100.00
Nov-20	200000	175000	10000	10000	5000	200000	100.00
Dec-20	200000	175000	10000	10000	5000	200000	100.00
Q-3	600000	525000	30000	30000	15000	600000	100.00
Jan-21	200000	180000	15000	10000	5000	210000	105.00
Feb-21	200000	180000	15000	10000	5000	210000	105.00
Mar-21	200000	180000	15000	10000	5000	210000	105.00
Q-4	600000	540000	45000	30000	15000	630000	105.00
Total	2196000	1925000	120000	93000	60000	2198000	100.09

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

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S.N. 62

OPGC

62

Fly ash generation & utilisation in previous two years (2017-18 & 2018-19):

Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
2017-18	1096142	607344	55.41
2018-19	1014085	343411	33.86

Fly Ash Utilisation Action Plan Year 2019-20 (quarter wise):

S.N.	Description	Unit	Q1 (actual)	Q2 (Projected)	Q3, (Projected)	Q4,(Projected)	Total in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	254965	260000	280000	280000	1074965
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	3506	3000	5000	5000	16506
ii)	Ready Mix Concrete /Cement/Asbestos	MT	5940	6000	6000	6000	23940
iii)	Low Lying area filling/ Area Development	MT	103903	30000	20000	20000	173903
iv)	Road Construction	MT	2720	0	1000	1000	4720
v)	Abandoned stone quarry	MT	0	50000	180000	200000	430000
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Others: (Cenosphere)	MT	21	21	21	21	84
	Total Ash Utilisation	MT	116090	89021	212021	232021	649153
C	Ash Utilisation percentage	%	45.53	34	76	83	60

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Proposed Action Plan 100% Ash Utilization

OPGC

S.N.	Description	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
A	Ash Generation	MT	1074965	1050000	1075000	1050000	1075000
B	Ash Utilization						
i)	Brick Manufacturing	MT	16506	20000	20000	25000	45000
ii)	Ready Mix Concrete /Cement/Asbestos	MT	23940	25000	25000	100000	200000
iii)	Low Lying area filling/ Area Development	MT	173903	120000	130000	100000	110000
iv)	Road Construction	MT	4720	15000	30000	30000	20000
v)	Abandoned stone quarry	MT	430000	500000	550000	530000	200000
vi)	Mines void filling	MT	0	0	0	0	500000
vii)	Agriculture Utilisation	MT	0	2000	2000	4000	5000
viii)	Others(Cenosphere)	MT	84	90	90	90	90
	Total Ash Utilization	MT	649153	682090	757090	789090	1080090
C	**Ash Utilization percentage**	**%**	**60**	**65**	**70**	**75**	**100**

Note: 100% utilization has been projected anticipating allotment of void mine to OPGC in the year 2020-21 and increase in demand from Cement manufacturing in the locality from the year 2022-23 onwards.

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S.N. 63

ANNEXURE- I

NAME OF THE UNIT: TUTICORIN THERMAL POWER STATION/ TANGEDCO/ TAMIL NADU

POWER GENERATION CAPACITY: 5 X 210 MW

S.N	Description	Unit	2017-18 Q1		Q2		Q3		Q4	
			Dry fly ash	Wet/ Bottom Ash	Dry fly ash	Wet/ Bottom Ash	Dry fly ash	Wet/ Bottom Ash	Dry fly ash	Wet/ Bottom Ash
A	Ash Generation (Fly Ash + Bed Ash)	MT	181304	131853	146396	92809	130926	88563	178979	152125
B	Ash Utilisation	MT								
i)	Brick Manufacturing	MT	28334		25225		22884		29266	
ii	If any other area (specify) (Cement Companies)	MT	152970		121171		108042		149713	
iii	Others			5714		4404		4375		4637.26
iv	Total Ash Utilisation	MT	181304	5714	146396	4404	130926	4375	178979	4637.26
C	Ash Utilisation percentage	%	**100**	4.3336	**100**	4.7452	**100**	4.94	**100**	3.04832

Under Development

Name of the Authorised Person V.Rajendran, EE/ AHP/ TTPS

Signature: Sd***(15.07.2019)

E-mail id : sem2ttps@tnebnet.org

Phone no. : 9445856947

ANNEXURE- II

(63)

NAME OF THE UNIT: TUTICORIN THERMAL POWER STATION/ TANGEDCO/ TAMIL NADU

POWER GENERATION CAPACITY: 5 X 210 MW

2018-19

S.N	Description	Unit	Q1		Q2		Q3		Q4	
			Dry fly ash	Wet/ Bottom Ash	Dry fly ash	Wet/ Botto m Ash	Dry fly ash	Wet/ Botto m Ash	Dry fly ash	Wet/ Bottom Ash
A	Ash Generation (Fly Ash + Bed Ash)	MT	188299	103001	178661	78929	158479	67919	166725	76834
B	Ash Utilisation	MT								
i)	Brick Manufacturing	MT	27411		28880		24482		30560	
ii	If any other area (specify) (Cement Companies)	MT	160888		149781		133997		136165	
iii	Others			7.46		25.28		7.10		8.72
iv	Total Ash Utilisation	MT	188299	7.46	178661	25.28	158479	7.1	166725	8.72
C	Ash Utilisation percentage	%	**100**	0.0072	**100**	0.032	**100**	0.0105	**100**	0.01135

Name of the Authorised Person V.Rajendran, EE/ AHP/ TTPS

Signature: Sd(15.07.2019)***

E-mail id : sem2ttps@tnebnet.org

Phone no. : 9445856947

tnebnet

ANNEXURE- III

NAME OF THE UNIT: TUTICORIN THERMAL POWER STATION/ TANGEDCO/ TAMIL NADU

POWER GENERATION CAPACITY: 5 X 210 MW

2019-20

S.N	Description	Unit	Q1	
			Dry fly ash	Wet/ Bottom Ash
A	Ash Generation (Fly Ash + Bed Ash)	MT	248186	107958
B	Ash Utilisation	MT		
i)	Brick Manufacturing	MT	42983	
ii	If any other area (specify) (Cement Companies)	MT	205203	
iii	Others			22.1
iv	Total Ash Utilisation	MT	248186	22.1
C	Ash Utilisation percentage	%	**100**	0.020470924

Name of the Authorised Person V.Rajendran, EE/ AHP/ TTPS

Signature: Sd*(15.07.2019)**

E-mail id : sem2ttps@tnebnet.org

Phone no. : 9445856947

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(26) S.N.64

64

Format for Ash Utilization Action Plan

1. Name of the Unit: Kakatiya Thermal Power Project -I / TSGENCO
2. Power Generation Capacity: 500 MW
3. Fly ash generation and utilisation in previous two years :

FY	2017-18	2018-19
Gen (in MT)	8,70,278.20	8,08,802.60
Utilization (in MT)	6,80,194.39	8,20,859.11

4. Fly Ash Utilisation Action Plan (quarter wise):

S.No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,07,885.30	2,31,840.00	2,31,840.00	2,29,320.00	
B	Ash Utilisation	MT	2,00,063.34	2,31,840.00	2,37,880.00	2,31,854.00	9,01,637.34
i)	Brick Manufacturing	MT	27,924.21	46,368.00	50,000.00	45,864.00	1,70,156.21
ii)	Ready Mix Concrete	MT	31,282.00	34,776.00	34,776.00	34,398.00	1,35,232.00
iii)	Low Lying area filling/ Area Development	MT		11,592.00	14,000.00	14,000.00	39,592.00
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement Industries	MT	86,912.00	92,736.00	92,736.00	91,728.00	3,64,112.00
ix)	Ash Dyke raising	MT	23,093.13	23,184.00	23,184.00	22,932.00	92,393.13
x)	Levelling & Grading	MT	30,852.00	23,184.00	23,184.00	22,932.00	1,00,152.00
	Total Ash Utilisation	MT	2,00,063.34	2,31,840.00	2,37,880.00	2,31,854.00	9,01,637.34
C	Ash Utilisation percentage	%	96.24	100	102.61	101.11	100.08

Note: Almost 100% ash utilization is achieved. 100 % ash utilization will be maintained as per action plan in future quarters.

Name of the Authorized Person : Sri. M. Siddaiah, Chief Engineer/KTPP

Signature:

Email ID: ce.ktpp@tsgenco.co.in

Phone no. 08713- 244002

Chief Engineer / KTPP
Kakatiya Thermal Power Project

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S.N.65

Format for Ash Utilisation Action Plan

Action Plan Submitted on 17.07.2019 at New Delhi

1 Name of the Unit: **Prichha Thermal Power Project**

2 Power Generation Capacity: **1140MW**

3 Fly Ash generation and Utilisation in previous two years(2017-18 and 2018-19):

4 Fly Ash Utilisation Action Plan (**Quarter wise**):

S.N.	Description	Unit (Metric Tonne)	Q1 (April and May-2019	Q2	Q3	Q4	Total fly ash utilization in 2019-20
A	Ash Generation (Fly ash+ Bed ash)	MT	186811.55	188000	190000	180000	744811.55
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	8860.00	9000	10000	6000	33860.00
ii)	Ready Miz concrete	MT					
iii)	Low lying area filling/Area development	MT					
iv)	Road Construction	MT	70320.00	70000	75000	70000	285320.00
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) (Cement Industries)	MT	101946.50	103000	100000	95000	399946.50
	Total Ash Utilisation	MT	181126.50	182000	185000	171000	719126.50
C	Ash Utilisation percentage	%	96.95%	96.80%	97.36%	95%	96.55%

HE TEE AND-II

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Proposed Action Plan 100% Ash Utilisation (2020-21)

1 Name of the Unit: **Prichha Thermal Power Project**
2 Power Generation Capacity: **1140MW**
3 Fly Ash Utilisation Action Plan (Quarter wise):

S.N.	Description	Unit (Metric Tonne)	Q1	Q2	Q3	Q4	Total fly ash utilization in 2020-21(Tentative)
A	Ash Generation (Fly ash+ Bed ash)	MT	300000	310000	320000	340000	**1270000**
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	30000	25000	35000	35000	**125000**
ii)	Ready Miz concrete	MT					
iii)	Low lying area filling/Area development	MT	40000	50000	50000	65000	**205000**
iv)	Road Construction	MT	80000	75000	80000	80000	**315000**
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) (Cement Industries)	MT	150000	160000	155000	160000	**625000**
	Total Ash Utilisation	MT	300000	310000	320000	340000	**1270000**
C	Ash Utilisation percentage	%	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Note: *(A) 100% utilisation has been projected anticipating that a MoU draft duly signed by M/s NHAI and M/s PNC Infratech for utilisation of approx. 9.67 Lakh cum pond ash in four lane of Jhansi- Khajuraho National Highway from ash dyke.*

(B) Tender for filling of abandoned quarry mines by pond ash located at distance of 48 KM from Parichha Thermal Power project. The work involves approx. 4.9 Lakh cum of filling of Pond ash in to abandoned quarry mines.

EE AHD-II

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S.N. 66

66

Format for Ash Utilisation Action Plan

1. Name of the Unit: Sagardighi Thermal Power Project
2. Power Generation Capacity:1600MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Total Ash Generation (MT)	Total Ash Utilization(MT)	Percentage of Utilization(%)
2017-18	1380472	904717	65.54
2018-19	1228331	1147009	93.4

4. Fly Ash Utilisation Action Plan(quarter wise)*: For the Year 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	440113	353296	353296	353295	1500000
B	Ash Utilisation	MT	255850	336460.5	336460.5	346229	1275000
i)	Brick Manufacturing	MT	11821	33646	33646	34623	113736
ii)	Ready Mix Concrete	MT	88782	111407	151407	155803	507399
iii)	Low Lying area filling/ Area Development	MT	47000	104115	84115	86557	321787
iv)	Road Construction	MT	108247	87292	67292	69247	332078
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify)	MT					
	Total Ash Utilisation	MT					
C	Ash Utilisation percentage	%	58.13	95.21	95.21	98	85

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S.N. 67

62

Format for Ash Utilisation Action plan

1	Name of The Unit	RTS-B,Ramagundam			
2	Power Generation Capacity	62.5 MW			
3	Fly ash generation and utilisation in previous two years (2017-19 and 2018-19)				
	Fly ash generation in the FY 2017-18	141648.41	MT		
	Fly ash utilisation in the FY 2017-18	98594.62	MT	69.61 %	
	Fly ash generation in the FY 2018-19	115123.35	MT		
	Fly ash utilisation in the FY 2018-19	145721.62	MT	126.58 %	Accumulated Ash in Ash pond of Previous years utilised during this FY

4 Fly ash utilization action plan (Quarter wise)*

S No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly ash utilisation in Fy 2019-20
A	Ash Generation (Fly ash +Bed Ash)	MT	32076.4	25000	32000	31000	
B	Ash Utilisation	MT	65000	28000	40000	35000	
i	Brick Manufacturing	MT	45000	20000	30000	30000	
ii	Ready mix concrete	MT	Nil	Nil	Nil	Nil	
iii	Low lying area filling/ Area development	MT	20000	8000	10000	5000	
iv	Road construction	MT	Nil	Nil	Nil	Nil	
v	filling of abondoned stone quarry	MT	Nil	Nil	Nil	Nil	
vi	Mines void filling	MT	Nil	Nil	Nil	Nil	
vii	Agriculture utilisation	MT	Nil	Nil	Nil	Nil	
viii	if any other area (Specify)	MT	Nil	Nil	Nil	Nil	
	Total ash utilisation	MT	65000	28000	40000	35000	
C	Ash utilisation Percentage %	%	202.64	112.00	125.00	112.90	

Accumulated Ash in Ash pond of Previous years utilised during this FY

Name of the Authorised person: Shashikanth Singh, EE/civil/RTS-B

Signature:

E-Mail ID: rts.se@tsgenco.co.in

Phone No: 9490610750

15/07/19

Executive Engineer, (Civil)
TSGENCO, RTS-B,
RAMAGUNDAM-505 208.

15/07/2019

Superintending Engineer / O&M
RTS 'B' / Ramagundam.

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S.N.68

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Ash Utilisation Action Plan

1. Name of the Unit: ***Bhartiya Rail Bijlee Company Ltd***
2. Power Generation Capacity: (4X250 MW) , 750 MW is operational
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

FY	Total Ash Generation (MT)	Total Ash Utilisation (MT)	Percentage
2017-18	2,66,915	75,372	28.23
2018-19	6,10,088	2,09,960	34.41

4. Fly Ash Utilisation Action Plan(quarter wise)* 2019-20 and 2020-21:

S.N.	Description	Unit	Q1 (Actual)	Q2 (anti)	Q3 (anti)	Q4 (anti)	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	27,3303	2,55,000	27,0000	2,75,000	10,73,303
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	2,125	3,000	4,500	5,000	14,625
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling/ Area Development	MT	Nil	Nil	60,000	90,000	1,50,000
iv)	Road Construction	MT	Nil	100	1,000	4,000	5,100
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	100	250	250	600
viii)	If any other area (cement industry)	MT	1,48,812	1,40,000	1,60,000	1,65,000	6,13,812
	Total Ash Utilisation	MT	1,50,937	1,43,100	2,25,500	2,64,000	7,83,537
C	Ash Utilisation percentage	%	55.23	56.11	83.51	96.00	73.00

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66 212

Name of the Unit: ***Bhartiya Rail Bijlee Company Ltd***

Fly Ash Utilisation Action Plan (quarter wise) FY 2020-21:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,75,000	3,40,000*	3,40,000	3,40,000	12,95,000
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	6,000	7,000	7,000	8,000	28,000
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling/ Area Development	MT	90,000	1,00,000	1,00,000	1,00,000	3,90,000
iv)	Road Construction	MT	4,000	4,500	5,000	10,000	23,500
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	100	250	250	600
viii)	If any other area (cement industry)	MT	1,70,000	1,95,000	1,95,000	2,05,000	7,65,000
	Total Ash Utilisation	MT	2,68,000	3,04,000	3,04,000	3,15,000	11,91,000
C	Ash Utilisation percentage	%	97.45	89.41	89.41	92.65	91.97

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Name of the Authorised Person: S K Jain

Signature:.....

E-mail id : skjain042ntpc.co.in

Phone no : 9650990106

**** COD of Unit# 4 expected by June'2020***

S.N. 69

69

Format for Ash Utilisation Action Plan

1. Name of the Unit : KOTHAGUDEM THERMAL POWER STATION / V-STAGE
2. Power Generation Capacity : 2 X 250 mw
3. Fly ash generation and utilisation for the year 2019-2020
4. Fly Ash Utilisation Action Plan(quarter wise)*:

Action Plan for 2019 - 2020 (Quarter Wise *)

S. NO.	Description	Unit	Q1	Q2	Q3	Q4	Total Ash Utilisation in FY 2017-2018
A	Total Ash Generation (Fly Ash + Bed Ash)	MT	392221.46	425000	420000	400000	1637221.46
B	Total Ash Utilisation						
i)	Brick Manufacturing	MT	8710.85	50000	50000	95000	203710.85
ii)	Ready Mix Concrete	MT	0	20000	50000	50000	120000
iii)	Low Lying area filling/ Area Development (Pond ash)	MT	6800.00	50000	60000	85000	201800
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT	0	30000	60000	70000	160000
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify) - Cement	MT	11985.19	20000	100000	100000	231985.19
	Total Ash Utilisation	MT	27496.04	170000.00	320000.00	400000	917496.04
C	Ash Utilisation percentage (Avg.)	%	7.01	40.00	76.19	100.00	56.04

Action Plan for 2020 - 2021 (Quarter Wise *)

S. No.	Description	Unit	Q1	Q2	Q3	Q4	Total Ash Utilisation in FY 2017-2018
A	Total Ash Generation (Fly Ash + Bed Ash)	MT	400000	395000	400000	390000	1585000
B	Total Ash Utilisation						
i)	Brick Manufacturing	MT	85000	80000	65000	95000	325000
ii)	Ready Mix Concrete	MT	49000	100000	62000	50000	261000
iii)	Low Lying area filling/ Area Development (Pond ash)	MT	80000.00	80000	85000	85000	330000
iv)	Road Construction	MT	40000	7500	8000	0	55500
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	72000	65500	80000	60000	277500
vii)	Agriculture Utilisation	MT	12000	0	0	0	12000
viii)	If any other area (specify) - Cement	MT	62000	62000	100000	100000	324000
	Total Ash Utilisation	MT	400000.00	395000.00	400000.00	390000	1585000
C	Ash Utilisation percentage (Avg.)	%	100	100	100	100	100

Name of the Authorised Person: Sri K. Anandam

Signature:

E-mail id : ce.ktps5@tsgenco.co.in

Phone no. : 08744 - 255272

CHIEF ENGINEER
KTPS (O&M), V STAGE,
PALONCHA-507 115.

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N.70

Plant wise Ash utilization by CSPGCL – FY 2018-19

	Power House	Generation		
		LMT	LMT	%
1	KTPS, Korba East	7.11	7.74	108.85
2	HTPS, Korba West & (1x500 MW) Korba West Extn.	26.89	13.64	50.72
3	DSPM TPS, Korba East	9.72	3.19	32.81
4	ABVTPS, Janjhgir Champa	17.26	4.31	24.99
	TOTAL CSPGCL	**60.98**	**28.88**	**47.36**

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QUARTERLY ACTION PLAN OF ASH UTILIZATION FOR THE FY 2019-20 & 2020-21
PLANT :- ABV TPS, Janjgir Champa

S. N.	Proposed Ash Utilization In Various Heads	2019-20 LMT	FY 2019-20 Q1	FY 2019-20 Q2	FY 2019-20 Q3	FY 2019-20 Q4	2020-21 LMT	FY 2020-21 Q1	FY 2020-21 Q2	FY 2020-21 Q3	FY 2020-21 Q4
			LMT	LMT	LMT	LMT		LMT	LMT	LMT	LMT
1	Supplied to Cement Plant	9.65	1.50	2.50	2.80	2.85	8.00	2.00	1.50	2.25	2.25
2	Supply to Brick Manufacturing	0.75	0.20	0.10	0.20	0.25	1.00	0.25	0.25	0.25	0.25
3	Supply to Land Filling	5.10	2.00	0.50	1.30	1.30	6.00	1.50	0.50	2.00	2.00
4	Supply to Agricluture	0.30	0.00	0.10	0.10	0.10	0.30	0.10	0.00	0.10	0.10
5	Supply to Mine Filling	2.50	0.00	0.50	1.00	1.00	2.30	0.70	0.30	0.70	0.60
6	Other (Road/ Forest/ Nagar Nigam etc.)	0.30	0.00	0.10	0.10	0.10	1.00	0.25	0.00	0.50	0.25
7	Total Ash Utilization in LMT	18.60	3.70	3.80	5.50	5.60	18.60	4.80	2.55	5.80	5.45
8	Estimated Ash Generation in LMT	18.60	4.65	4.65	4.65	4.65	18.60	4.65	4.65	4.65	4.65
9	% age Ash Utilization	100.00%	79.57%	81.72%	118.28%	120.43%	100.00%	103.23%	54.84%	124.73%	117.20%

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S.N. 71

Plant wise Ash utilization by CSPGCL – FY 2018-19

		Ash Generation	Ash Utilization	
		LMT	LMT	%
1	KTPS, Korba East	7.11	7.74	108.85
2	HTPS, Korba West & (1x500 MW) Korba West Extn.	26.89	13.64	50.72
3	DSPM TPS, Korba East	9.72	3.19	32.81
4	ABVTPS, Janjhgir Champa	17.26	4.31	24.99
	TOTAL CSPGCL	**60.98**	**28.88**	**47.36**

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QUARTERLY ACTION PLAN OF ASH UTILIZATION FOR THE FY 2019-20 & 2020-21

PLANT :- DSPM TPS, Korba East

S. N.	Proposed Ash Utilization In Various Heads	2019-20 LMT	FY 2019-20				2020-21 LMT	FY 2020-21			
			Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
			LMT	LMT	LMT	LMT		LMT	LMT	LMT	LMT
1	Supplied to Cement Plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Supply to Brick Manufacturing	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.10	0.10
3	Supply to Land Filling	3.15	0.80	0.70	0.80	0.85	5.30	1.70	1.00	1.00	1.60
4	Supply to Agricluture	0.00	0.00	0.00	0.00	0.00	0.20	0.05	0.05	0.05	0.05
5	Supply to Mine Filling	3.00	1.00	0.50	0.75	0.75	4.00	1.00	1.00	1.00	1.00
6	Other (Road/ Forest/ Nagar Nigam etc.)	0.30	0.10	0.10	0.00	0.10	0.30	0.08	0.08	0.07	0.07
7	Total Ash Utilization in LMT	6.45	1.90	1.30	1.55	1.70	10.00	2.83	2.13	2.22	2.82
8	Estimated Ash Generation in LMT	10.00	2.50	2.50	2.50	2.50	10.00	2.50	2.50	2.50	2.50
9	% age Ash Utilization	64.5%	76.0%	52.0%	62.0%	68.0%	100.0%	113.2%	85.2%	88.8%	112.8%

agrodevelopment

S.N. 72

(72)

Plant wise Ash utilization by CSPGCL – FY 2018-19

	Power House	Generation		
		LMT	LMT	%
1	KTPS, Korba East	7.11	7.74	108.85
2	HTPS, Korba West & (1x500 MW) Korba West Extn.	26.89	13.64	50.72
3	DSPM TPS, Korba East	9.72	3.19	32.81
4	ABVTPS, Janjhgir Champa	17.26	4.31	24.99
	TOTAL CSPGCL	**60.98**	**28.88**	**47.36**

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QUARTERLY ACTION PLAN OF ASH UTILIZATION FOR THE FY 2019-20 & 2020-21
PLANT :- HTPS & 1 x 500 KWB Extn, Korba West

S. N.	Proposed Ash Utilization In Various Heads	2019-20 LMT	FY 2019-20				2020-21 LMT	FY 2020-21			
			Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
			LMT	LMT	LMT	LMT		LMT	LMT	LMT	LMT
1	Supplied to Cement Plant	0.18	0.03	0.05	0.05	0.05	2.00	0.50	0.50	0.50	0.50
2	Supply to Brick Manufacturing	0.74	0.19	0.20	0.20	0.15	1.00	0.30	0.10	0.30	0.30
3	Supply to Land Filling	14.00	1.40	2.75	4.50	5.35	14.20	4.00	1.20	5.00	4.00
4	Supply to Agricluture	0.31	0.00	0.06	0.15	0.10	0.30	0.10	0.00	0.10	0.10
5	Supply to Mine Filling	3.41	0.30	0.00	1.50	1.61	9.00	3.00	0.00	3.00	3.00
6	Other (Road/ Forest/ Nagar Nigam etc.)	2.55	0.10	0.30	0.95	1.20	2.50	0.70	0.20	0.90	0.70
7	Total Ash Utilization in LMT	21.19	2.02	3.36	7.35	8.46	29.00	8.60	2.00	9.80	8.60
8	Estimated Ash Generation in LMT	29.00	7.25	7.25	7.25	7.25	29.00	7.25	7.25	7.25	7.25
9	% age Ash Utilization	73.06%	27.86%	46.34%	101.39%	116.6%	100.00%	118.62%	27.59%	135.1%	118.6%

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S.N. 73

Action plan for 100% ash utilization i.r.o Durgapur Thermal Power Station(DTPS), DVC

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	24400	56672	62824	62824	206720
B	Ash Utilisation	MT	1660	1360	75000	75000	153020
i)	Brick Manufacturing	MT	0	0	0	0	0
ii)	Ready Mix Concrete /Cement	MT	1660	1360	25000	25000	53020
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0
iv)	Road Construction	MT	0		0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	50000	50000	100000
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	1660	1360	75000	75000	153020
C	Ash Utilisation percentage	%	7	2	119	119	74

HOP:K K Sharma , Mail Id:kamlesh.sharma@dvc.gov.in ,Mobile: 9006972282

Irrelevant

Phone no.

S.N.74

Action plan for 100% ash utilization i.r.o Raghunathpur Thermal Power Station(RTPS), DVC

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	315800	417080	315800	315800	1364480
B	Ash Utilisation	MT	33210	37300	95000	145000	310510
i)	Brick Manufacturing	MT	0	0	0	0	0
ii)	Ready Mix Concrete /Cement	MT	33210	37300	95000	145000	310510
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	33210	37300	95000	145000	310510
C	Ash Utilisation percentage	%	11	9	30	46	23

OP: Ananta Chakraborty, Mail Id: ananta.chakraborty@dvc.gov.in,Mobile: 9430386124

Not relevant

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S.N.-15

Format for Ash Utilisation Action Plan

1. Name of the Unit: Hinduja National Power Ltd
2. Power Generation Capacity: 2x 520 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year: 2017-2018 and 2018- 2019

S.N.	Description	Unit	2017-18	2018-19
A	Ash Generation	MT	611345	199142
B	Ash Utilisation	MT	110503	510908
C	Ash Utilisation percentage	%	18.07	256.55

Fly Ash Utilisation Action Plan for 2019-20 (quarter wise)

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	236722	230000	230000	230000	926722
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	56161	25000	35000	40000	186161
ii)	Ready Mix Concrete	MT	61381	70000	75000	85000	201381
iii)	Low Lying area filling/ Area Development	MT		20000	25000	75000	120000
iv)	Road Construction	MT		25000	25000	25000	95000
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify)	MT					
	Total Ash Utilisation	MT	117542	140000	160000	225000	642542
C	Ash Utilisation percentage	%	49.7	60.87	69.56	97.82	69.33

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Fly Ash Utilisation Action Plan for 2020-21 (quarter wise)

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	230000	230000	230000	230000	920000
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	50000	50000	50000	55000	205000
ii)	Ready Mix Concrete	MT	80000	84000	90000	95000	349000
iii)	Low Lying area filling/ Area Development	MT	20000	60000	90000	90000	260000
iv)	Road Construction	MT	30000	30000	30000	30000	120000
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify)	MT					
	Total Ash Utilisation	MT	180000	224000	260000	270000	930000
C	Ash Utilisation percentage	%	78.26	97.39	113.04	117.4	101.08

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Name of the Authorised Person: Rudra Charan Padhy

Signature:.....

E-mail id : rcpadhy.hnp@hindujagroup.com

Phone no. : 9004071117

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years' time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Expected constraints for 100% Utilisation:- It is to inform that there are multiple constraints for 100% Ash Utilisations for our plant as it is located at Vishakapatnam and the off takers for Ash Utilisation is very few.

There are no cement plants near the Power plant location for taking ash for use.

S.N. 76

76

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Ash Utilisation Action Plan(2019-20)

1. Name of the Unit: KANTI BIJLEE UTPADAN NIGAM LIMITED
2. Power Generation Capacity: **610 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): in MT
   541193/187220 (2017-18) and **811822/329276** (2018-19)
4. Fly Ash Utilisation Action Plan (quarter wise) *:- **2019-20**

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,65,778	1,70,000	2,55,000	2,70,000	9,60,778
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	2727	5000	20,000	22,950	50,677
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT	1,43,469	1,40,000	90,000	75,000	4,48,669
iv)	Road Construction	MT	0	0	0	1,00,000	1,00,000
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	***Sale of Ash***	MT	931	19,069	30,000	50,000	1,00,000
	Total Ash Utilisation	MT	1,47,064	1,64,069	1,40,000	2,47,950	6,99,083
C	Ash Utilisation percentage	%	55.33	84.6	58.33	95.37	**72.76**

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Name of the Authorised Person:...Mr . Dipak Nath.....

Signature:.....

E-mail id : ...dipaknath@ntpc.co.in.....

Phone no. : ...9650990233.....

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Ash Utilisation Action Plan(2020-21)

5. Name of the Unit: KANTI BIJLEE UTPADAN NIGAM LIMITED
6. Power Generation Capacity: **610 MW**
7. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): in MT
   541193/187220 (2017-18) and 811822/329276 (2018-19)
8. Fly Ash Utilisation Action Plan (quarter wise) * :-**2020-21**

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,65,778	2,11,000	2,40,000	2,60,000	9,76,778
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	20,000	16,000	20,000	20,000	76,000
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT	1,20,900	1,10,000	1,20,000	1,10,000	4,50,900
iv)	Road Construction	MT	50,000	50,000	50,000		1,50,000
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	***Sale of Ash***	MT	70,000	80,000	70,000	80,000	3,00,000
	Total Ash Utilisation	MT	2,60,900	2,56,000	2,60,000	2,10,000	9,86,900
C	Ash Utilisation percentage	%	**98.16**	**121.59**	**112.50**	**76.92**	**101.01**

Name of the Authorised Person:...Mr . Dipak Nath.....

Signature:.....

E-mail id : ...dipaknath@ntpc.co.in.....

Phone no. : ...9650990233.....

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation

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AMARKANTAK SAGO

S.N. 77

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly Ash + Bottom Ash)	MT	278916	189952	228252	267909	965029
B	Ash Utilisation	MT	183222	203763	276500	320067	983552
i)	Brick Manufacturing	MT	900	1185	1500	1500	5085
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	79735	41260	75000	75000	270995
iv)	Road Construction	MT	0	136	40000	40000	80136
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	80000	120000	200000
vii)	Agriculture Utilisation	MT	0				0
viii)	cement	MT	71331	82438	80000	83566	317336
viii)	If any other area (specify)	MT	31256	78744			110000
X	Total Ash Utilisation	MT	183222	203763	276500	320067	983552
C	Ash Utilisation percentage	%	65.69	107.27	121.14	119.47	101.92

Preplacement

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A. Fly Ash Utilisation Status FY 17-18

S. N	Month	Ash Generation (MT)	Supply to Cement Plant (MT)	Supply to Brick Manufct. (MT)	Supply for other Uses (MT)	Supply for other Uses (MT)	Total(MT)/ Month	% Utilisation/ Month
					Road Construction (Through PWD, State highway & National Highway)	(Construction of Road inside plant, Expansion Project, Land Development)		
1	Apr-17	109321	1100	25	0	0	1125	1.03
2	May-17	97519	1000	0	0	0	1000	1.03
3	Jun-17	84149	575	0	0	0	575	0.68
4	Jul-17	81111	575	0	0	0	575	0.71
5	Aug-17	67004	175	0	425	0	600	0.90
6	Sep-17	72826	0	0	1550	0	1550	2.13
7	Oct-17	90209	0	0	1200	49000	50200	55.65
8	Nov-17	81572	0	0	325	51000	51325	62.92
9	Dec-17	62222	0	0	3690	58532	62222	100.00
10	Jan-18	84147	0	25	2000	82119	84144	100.00
5	Feb-18	92880	75	1025	17000	74780	92880	100.00
6	Mar-18	97124	8430	0	1760	86934	97124.2	100.00
Total		1020085	11930	1075	27950	402365.15	443320	43.46

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B. Fly Ash Utilisation Status-2018-19

S. N	Month	Ash Generation (MT)	Supply to Cement Plant (MT)	Supply to Brick Manufacturing (MT)	Supply to Land Filling (MT)	Supply to Ash Dyke Height Raising (MT)	Supply to Agriculture (MT)	Supply to Mine Filling(MT)	Supply To Any Other Use(MT)	Total(MT)	Percentage (%)
1	Apr-18	88292	13271	0	5918	69103	0	0	0	88292	100.00
2	May-18	102892	6777	0	0	14500	0	0	0	21277	20.68
3	Jun-18	106397	19273	0	2496	14500	0	0	0	36269	34.09
4	Jul-18	110483	9462.2	0	3342	0	0	0	0	12804	11.59
5	Aug-18	80908	4432	240	12000	0	0	0	0	16672	20.61
6	Sep-18	77322	6067	213	11014	0	0	0	0	17294	22.37
7	Oct-18	90206	20828	330	14500	0	0	0	175	35833	39.72
8	Nov-18	108403	22159	220	57815	0	0	0	0	80194	73.98
9	Dec-18	112630	16923	360	68211	0	0	0	0	85494	75.91
10	Jan-19	93593	51430	400	31396	0	0	0	0	83226	88.92
11	Feb-19	85066	35236	250	22618	0	0	0	251	58355	68.60
12	Mar-19	93775	38615	300	908	0	0	0	0	39823	42.47
Total		**1149966**	**244473**	**2313**	**230218**	**98103**	**0**	**0**	**426**	**575533**	**50.05**

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Ash Utilization Report 2019-20

S. N	Month	Ash Generation (MT)	Supply to Cement Plant (MT)	Supply to Brick Manufacturing (MT)	Supply to Land Filling (MT)	Supply to Ash Dyke Height Raising (MT)	Supply to Agriculture (MT)	Supply to Mine Filling(MT)	Supply To Any Other Use(MT)	Supply to Road Constructions (MT)	Total(MT)	Percentage (%)
1	Apr-19	86246	21291	300	3338	31256	0	0	0	0	56185	65.15
2	May-19	104183	20688	300	31986	0	0	0	0	0	52974	50.85
3	Jun-19	88486	29352	300	44411	0	0	0	0	0	74063	83.70
4	Jul-19	73615	29865	407	41260	0	0	0		135.62	71668	97.35
5	Aug-19	66336	26482	378		43744	0	0	0		70604	106.43
Total		**418866**	**127678**	**1685**	**120995**	**75000**	**0**	**0**	**0**	**136**	**325494**	**77.71**

Not for Retirement

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1. Action Plan for 100 % Fly Ash Utilization 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly Ash + Bottom Ash)	MT	278916	189952	228252	267909	965029
B	Ash Utilisation	MT	183222	203763	276500	320067	983552
i)	Brick Manufacturing	MT	900	1185	1500	1500	5085
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	79735	41260	75000	75000	270995
iv)	Road Construction	MT	0	136	40000	40000	80136
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	80000	120000	200000
vii)	Agriculture Utilisation	MT	0				0
viii)	cement	MT	71331	82438	80000	83566.52	317336
viii)	If any other area (specify)	MT	31256	78744			110000
X	Total Ash Utilisation	MT	183222	203763	276500	320067	983552
C	Ash Utilisation percentage	%	65.69	107.27	121.14	119.47	101.92

Name :- P.S.N.V. PRASAD

Signature :- P.S.N.V. Prasad

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S.N. 78

Action Plan for 2019-20 for 100 % Utilization

In addition of existing utilization, following areas, as per the statutory requirements have been identified to increase fly ash utilization in 2019-20.

TPS	Areas of Utilization	Status of NOC from Mine Deptt.	Status of NOC from MPPCB	Quantity (LMT)	Utilization %
ATPS Chachai	▪ Low laying ▪ Road Embankments	Not required ---------	Appl. submitted on 29/03/2019 -----	0.60 0.60	100%
SGTPS BRS	Low-Lying areas	-----	Appl. submitted on 08/04/2019	5.0	100%
STPS Sarni	•WCL Mine (filling started) • 4 stone query mines	-------- Obtained on 22/03/2019	---------- Appl submitted on 30/03/2019	0.30 5.57	100 %
SSTPP Khandwa (I)	Stone query mine	obtained on 08/02/2019	Obtained on 28/03/2019	11.2	70-80%
SSTPP Khandwa (II)	Disposal through new Ash silos w.e.f. May-June-19.			10.0	50 % (Ist Year utilization)

Note:-The proposals for transportation of fly ash to mines / roads / low-lying areas from all above TPSs shall be finalized by June-July 19'.

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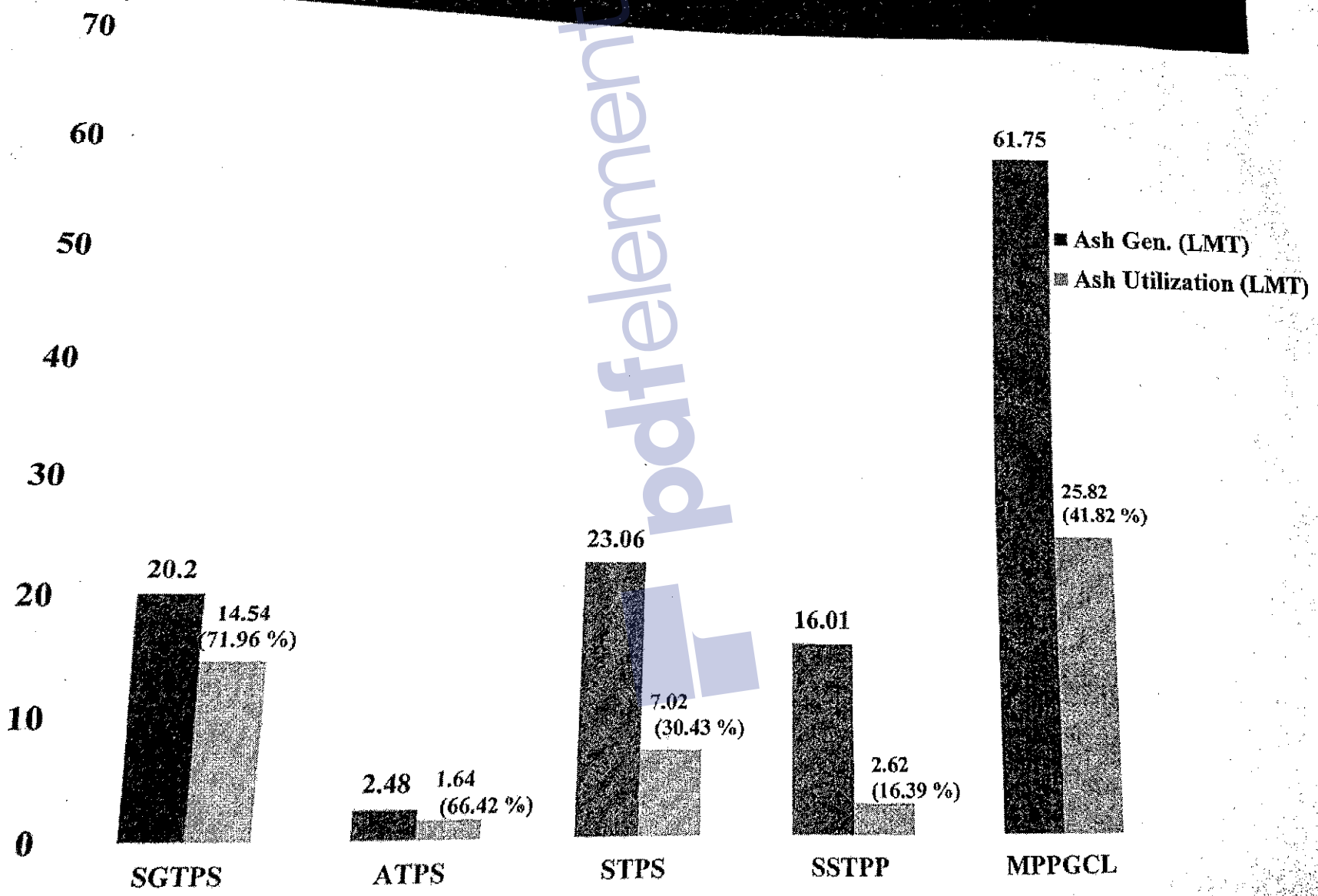
Fly Ash Gen. & Utilization in FY-2018-19



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S.N.79

Ash Utilisation Action Plan: Unit-3 to Unit-7: FY 2019-20

1. Name of the Unit: **Chandrapur Super Thermal Power Station, Chandrapur**
2. Power Generation Capacity: **1920 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

FY	Fly Ash Generation	Fly Ash Utilization	% Utilization
FY 2017-18	16,37,897 MT	6,81,030 MT	41.57 %
FY 2018-19	19,23,341 MT	7,08,296 MT	36.82 %

4. Fly Ash Utilisation Action Plan (quarter wise)* : 2019-20:

S.N.	Description	Unit	Q1 (2019-20)	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	8,62,330	16,30,764	7,94,378	9,38,459	42,25,931
B	Ash Utilisation C.C.	MT	1,92,880	69828	4,44,852	5,25,537	12,33,097
i)	Brick Manufacturing	MT	8302	800	1,74,763	2,06,461	3,90,326
ii)	Ready Mix Concrete	MT	0	0	11,121	13,138	24,259
iii)	Low Lying area filling/ Area Development	MT	0	0	46,868	55,369	1,02,237
iv)	Road Construction	MT	0	0	58,784	69,446	1,28,230
v)	Filling of abandoned stone quarry	MT	0	0	34,953	41,292	76,245
vi)	Mines void filling	MT	0	0	5,561	6,569	12,130
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	0	0	17,476	20,646	38,122
	Total Ash Utilisation	MT	2,01,180	70,627	**7,94,378**	**9,38,459**	**20,04,644**
C	Ash Utilisation percentage	%	22.54%	10.85%	100%	100%	58·34

Note: Considering projected coal consumption having ash percentage @34%.

Name of the Authorised Person: **Chief Engineer (O&M)**

Signature:.....

E-mail id : **cegenchandrapur@mahagenco.in**

Phone no. : **07172-220155 to 220159**

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

pdfelement

Ash Utilisation Action Plan: Unit-3 to Unit-7: FY 2020-21

5. Name of the Unit: **Chandrapur Super Thermal Power Station, Chandrapur**

6. Power Generation Capacity: **1920 MW**

7. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): N.A.

8. Fly Ash Utilisation Action Plan (quarter wise)* : **2020-21**:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	4,41,406	7,70,044	10,11,694	9,89,701	32,12,845
B	Ash Utilisation	MT	2,47,188	4,31,226	5,66,549	5,54,233	17,99,196
i)	Brick Manufacturing	MT	97,109	1,69,410	2,22,573	2,17,734	7,06,826
ii)	Ready Mix Concrete	MT	6,180	10,781	14,164	13,856	44,981
iii)	Low Lying area filling/ Area Development	MT	26,043	45,433	59,690	58,392	1,89,558
iv)	Road Construction	MT	32,664	56,983	74,865	73,238	2,37,750
v)	Filling of abandoned stone quarry	MT	19,422	33,882	44,515	43,547	1,41,366
vi)	Mines void filling	MT	3,090	5,390	7,082	6,928	22,490
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	9,711	16,941	22,257	21,773	70,682
	Total Ash Utilisation	MT	**4,41,406**	**7,70,046**	**10,11,694**	**9,89,701**	**32,12,847**
C	Ash Utilisation percentage	%	100%	100%	100%	100%	100%

Note: Considering projected coal consumption having ash percentage @34%.

Name of the Authorised Person: **Chief Engineer (O&M)**

Signature:.....

E-mail id : **cegenchandrapur@mahagenco.in**

Phone no. : **07172-220155 to 220159**

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Ash Utilisation Action Plan: Unit-8 & Unit-9: FY 2020-21

5. Name of the Unit: **Chandrapur Super Thermal Power Station, Chandrapur**

6. Power Generation Capacity: **1000 MW**

7. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): N.A.

8. Fly Ash Utilisation Action Plan(quarter wise)* **2020-21**:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	4,41,406	7,70,046	10,11,694	9,89,701	32,12,847
B	Ash Utilisation	MT	2,47,188	4,31,226	5,66,549	5,54,233	17,99,196
i)	Brick Manufacturing	MT	97,109	1,69,410	2,22,573	2,17,734	7,06,826
ii)	Ready Mix Concrete	MT	6,180	10,781	14,164	13,856	44,981
iii)	Low Lying area filling/ Area Development	MT	26,043	45,433	59,690	58,392	1,89,558
iv)	Road Construction	MT	32,664	56,983	74,865	73,238	2,37,750
v)	Filling of abandoned stone quarry	MT	19,422	33,882	44,515	43,547	1,41,366
vi)	Mines void filling	MT	3,090	5,390	7,082	6,928	22,490
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify) Cenosphere	MT	9,711	16,941	22,257	21,773	70,682
	Total Ash Utilisation	MT	4,41,406	7,70,046	10,11,694	9,89,701	32,12,847
C	Ash Utilisation percentage	%	100%	100%	100%	100%	100%

Note: For achieving 100% ash utilization at Unit-8&9, CSTPS will try to achieve 100% ash utilization within two years.

Name of the Authorised Person: **Chief Engineer (O&M)**

Signature:.....

E-mail id : **cegenchandrapur@mahagenco.in**

Phone no. : **07172-220155 to 220159**

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

pdfelement

Ash Utilisation Action Plan: Unit-8 & Unit-9: FY 2019-20

1. Name of the Unit: **Chandrapur Super Thermal Power Station, Chandrapur**
2. Power Generation Capacity: **1000 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

FY	Fly Ash Generation	Fly Ash Utilization	% Utilization
FY 2017-18	10,57,355 MT	28,726 MT	2.72 %
FY 2018-19	11,61,880 MT	3,27,848 MT	28.21 %

4. Fly Ash Utilisation Action Plan(quarter wise)* **2019-20**:

S.N.	Description	Unit	Q1 (2019-20)	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	4,59,909	3,75,363	5,08,861	4,14,794	15,19,606
B	Ash Utilisation	MT	1,73,777	95,808	2,84,962	2,32,285	7,05,895
i)	Brick Manufacturing	MT	0	178	1,11,949	91,255	2,03,375
ii)	Ready Mix Concrete	MT	0	0	7,124	5,807	12,931
iii)	Low Lying area filling/ Area Development	MT	0	0	30,023	24,473	54,496
iv)	Road Construction	MT	0	0	37,656	30,695	68,351
v)	Filling of abandoned stone quarry	MT	0	0	22,390	18,251	40,641
vi)	Mines void filling	MT	0	0	3,562	2,904	6,466
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify) Cenosphere	MT	8	16	11,195	9,125	20,328
	Total Ash Utilisation	MT	1,73,785	96,002	5,08,861	4,14,794	11,12,489
C	Ash Utilisation percentage	%	37.78%	25.92%	100%	100%	65.92

Note: For achieving 100% ash utilization at Unit-8&9, CSTPS will try to achieve 100% ash utilization within two years.

Name of the Authorised Person: **Chief Engineer (O&M)**

Signature:.....

E-mail id : **cegenchandrapur@mahagenco.in**

Phone no. : **07172-220155 to 220159**

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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S.N. 82

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Format For the Ash Utilisation Action Plan

Name Unit	Paras Thermal Power Station Paras
Power Generation capacity	2 X 250 MW

Fly Ash Gen & utilisation in previous 02 years	Fly Ash Gen	Fly Ash Utilisation (MT)	% Utilisation
2017-18	542428	214590	39.56
2018-19	517737	226549	43.76
Fly ash utilisation action plan		2019-20	

Sr No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly ash Utilisation
A	Ash Gen (Fly ash + Bottom Ash)	MT	253906	189040	234600	229500	907046
B	Ash Utilisation (MT)	MT	253754	189000	234600	229500	906854
i	Bricks Manufacturing	MT	239164	170100	211140	160650	781054.22
ii	Ready Mix Concreat	MT	14590	18900	23460	22950	79900.1
iii	Low lying area filing/ Area development	MT	0	0	0	0	0
iv	Road Construction	MT	0	0	0	45900	45900
v	Filling of abondent stone quarry	MT	0	0	0	0	0
vi	Mine void filling	MT	0	0	0	0	0
vii	Agree utilisation	MT	0	0	0	0	0
viii	If any other (Specify)	MT	0	0	0	0	0
	Total ash Utilisation	MT	253754	189000	234600	229500	906854
C	Ash Utilisation	%	99.94	99.98	100.00	100.00	100

(Q1 dry fly ash utilisation is 88.63% for year 2019-20)

Name of Authorised Person:- Shri R.V.Gore, Superintending Engineer
E mail ID :- cgmparas@mahagenco.in
Phone No :- 7507999663

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S.N. 84

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ASH UTILIZATION PLAN 2019-20

NAME OF STATION : NTPC- Singrauli				% AU in 18-19	35.21		Target AU %	50.14	
ANNUAL ASH Generation (Ton)			3162922	Target ANNUAL ASH UTILIZAION (%)		50.14			
ANNUAL ASH UTILIZATION (Ton)			1585752						
Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC/ Asbestos (In MT)	BRICK/ BLOCK (MT)	Roads/ Other Embankment *(MT)	Mine/ Stone quarry filling (MT)	Others (Agriculture & others (MT)	Total (MT)	% Ash Utilization
Apr-19	268913	63750	300	0	0	0	22400	86450	32.15
May-19	275743	56000	300	0	0	0	42000	98300	35.65
Jun-19	330702	67200	250	60	0	0	45590	113100	34.20
Q-1	875358	186950	850	60	0	0	109990	297850	34.03
Jul-19	292673	62468	200	165	0	0	17360	80193	27.40
Aug-19	244891	42409	660	80	0	0	32060	75209	30.71
Sep-19	250000	60000	500	600	0	0	50000	111100	44.44
Q-2	787564	164877	1360	845	0	0	99420	266502	33.84
Oct-19	250000	50000	1500	800	65000	0	50000	167300	66.92
Nov-19	250000	50000	1500	800	65000	0	50000	167300	66.92
Dec-19	250000	50000	1500	800	65000	0	50000	167300	66.92
Q-3	750000	150000	4500	2400	195000	0	150000	501900	66.92
Jan-20	250000	55000	1500	1000	62000	0	50000	169500	67.80
Feb-20	250000	55000	1500	1000	65000	0	50000	172500	69.00
Mar-20	250000	60000	1500	1000	65000	0	50000	177500	71.00
Q-4	750000	170000	4500	3000	192000	0	150000	519500	69.27
TOTAL	3162922	671827	11210	6305	387000	0	509410	1585752	50.14

Remarks/Support Required

* NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station

* Ash Utilization in Mine filling will be subject to allocation of Mines by coal companies and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.

*Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

* Enforcement of provisions of ash utilisation notification by PCB / district administration

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ASH UTILIZATION PLAN 20-21

NAME OF STATION : NTPC- Singrauli

ANNUAL ASH Generation (Ton)	3020000	Target ANNUAL AU (%)	100.00				
ANNUAL ASH UTILIZATION (Ton)	3020000						

Month/ Area	Ash Generation	Low Lying area Development (MT)	CEMENT/ RMC/ Asbestos (in MT)	BRICK/BLOCK Outside and NTPC (MT)	Roads/ Embankment* (MT)	Mine /Stone quarry filling (MT)	Others (Agriculture etc.(MT)	Total (MT)	% Ash utilization
Apr-20	250000	55000	25000	5000	90000	50000	5000	230000	92.00
May-20	250000	55000	25000	5000	90000	55000	5000	235000	94.00
Jun-20	250000	55000	25000	5000	90000	55000	5000	235000	94.00
Q-1	750000	165000	75000	15000	270000	160000	15000	700000	93.33
Jul-20	230000	55000	25000	5000	90000	70000	5000	250000	108.70
Aug-20	230000	55000	25000	5000	90000	70000	5000	250000	108.70
Sep-20	230000	55000	25000	5000	90000	70000	5000	250000	108.70
Q-2	690000	165000	75000	15000	270000	210000	15000	750000	108.70
Oct-20	260000	55000	25000	5000	100000	70000	5000	260000	100.00
Nov-20	270000	55000	25000	5000	100000	70000	5000	260000	96.30
Dec-20	270000	55000	25000	5000	100000	70000	5000	260000	96.30
Q-3	800000	165000	75000	15000	300000	210000	15000	780000	97.50
Jan-21	260000	55000	25000	5000	95000	80000	5000	265000	101.92
Feb-21	260000	55000	25000	5000	95000	80000	5000	265000	101.92
Mar-21	260000	55000	25000	5000	90000	80000	5000	260000	100.00
Q-4	780000	165000	75000	15000	280000	240000	15000	790000	101.28
Total Ash Utilization (MT)	**3020000**	**660000**	**300000**	**60000**	**1120000**	**820000**	**60000**	**3020000**	100.00

Remarks/Support Required

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station
* Ash Utilization in Mine filling will be subject to allocation of Mines/ Stone quarries by coal companies and SPCB & OGMS clearances by concerned Authorities for taking up ash filling in Mine.
*Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.
*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
*Enforcement of provisions of ash utilisation notification by PCB / district administration

S.N. 85

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ASH UTILIZATION PLAN 2019-20

Dated :15.09.2019

NAME OF STATION : NTPC RIHAND			AU achieved in 2018-19	37.10%							
ANNUAL ASH Generation (Ton)	3830729		ANNUAL ASH UTILIZAION (%)	60.74							
ANNUAL ASH UTILIZATION (MT)	2205326										
Month	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC/ Asbestos (MT)	BRICK/ BLOCK (MT)	Roads/ Embankment (MT) *	Mine filling (MT)	Fly ash used for Ash Dyke raising(MT)	Issue to Cement Industries through rail loading facility (MT)	Export (MT)	Others(Agriculture & others (MT)	Total (MT)	% AU (Monthly/ Quaretrly)
Apr-19	384777	128550	1810	18261	0	0	25100	0	0	0	173721	45.15
May-19	305417	84700	2105	10556	0	0	12150	0	0	5000	114511	37.49
Jun-19	284122	88158	1825	8611	0	0	0	0	0	5000	103594	36.46
Q-1	974316	301408	5740	37428	0	0	37250	0	0	10000	391826	40.22
Jul-19	296413	50000	2000	11000	0	0	0	0	0	5000	60500	20.41
Aug-19	280000	50000	2000	11000	0	0	0	0	0	5000	68000	24.29
Sep-19	280000	100000	2000	11000	0	0	0	0	0	10000	123000	43.93
Q-2	856413	200000	6000	33000	0	0	0	0	0	20000	251500	29.367
Oct-19	300000	120000	2000	25000	50000	0	0	0	0	10000	207000	69.00
Nov-19	300000	120000	2000	25000	50000	0	25000	0	0	12000	234000	78.00
Dec-19	300000	150000	2000	25000	50000	0	25000	5000	0	12000	269000	89.67
Q-3	900000	390000	6000	75000	150000	0	50000	5000	0	34000	710000	78.89
Jan-20	300000	150000	2000	25000	50000	0	30000	15000	0	12000	284000	94.67
Feb-20	300000	150000	2000	25000	50000	0	30000	15000	0	12000	284000	94.67
Mar-20	300000	150000	2000	25000	50000	0	30000	15000	0	12000	284000	94.67
Q-4	900000	450000	6000	75000	150000	0	90000	45000	0	36000	852000	94.67
TOTAL ASH UTILIZAION	3830729	1341408	23740	220428	300000	0	177250	50000	0	100000	2205326	60.74

REMARKS : Support required

1. NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station & utilization of ash in road project

2. Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

3. Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification. 4. Enforcement of provisions of ash utilisation notification by PCB / district administration

ASH UTILIZATION PLAN 2020-21

NTPC - Rihand

TOTAL ASH Generation (Ton)			3555000	Target AU %	100.00				
Month/ Area	Ash Generation	Low Lying area Development (MT)	CEMENT/RMC (MT)	BRICK/BLOCK (MT)	Roads/Embankment (MT)	Mine filling	Others (Agriculture etc. (MT)	Total (MT)	Ash Utilization (%)
Apr-20	325000	60000	65000	50000	120000	30000	5000	330000	101.54
May-20	325000	60000	60000	50000	120000	30000	5000	325000	100.00
Jun-20	325000	60000	65000	50000	120000	30000	5000	330000	101.54
Q-1	975000	180000	190000	150000	360000	90000	15000	985000	101.03
Jul-20	280000	50000	50000	40000	90000	30000	5000	265000	94.64
Aug-20	280000	50000	50000	35000	90000	30000	5000	260000	92.86
Sep-20	280000	50000	50000	35000	90000	30000	5000	260000	92.86
Q-2	840000	150000	150000	110000	270000	90000	15000	785000	93.45
Oct-20	290000	50000	70000	30000	90000	50000	5000	295000	101.72
Nov-20	290000	50000	70000	30000	90000	50000	5000	295000	101.72
Dec-20	290000	50000	75000	30000	90000	50000	5000	300000	103.45
Q-3	870000	150000	215000	90000	270000		15000	890000	102.30
Jan-21	290000	40000	75000	35000	100000	40000	5000	295000	101.72
Feb-21	290000	50000	75000	35000	95000	40000	5000	300000	103.45
Mar-21	290000	50000	75000	35000	100000	35000	5000	300000	103.45
Q-4	870000	140000	225000	105000	295000	115000	15000	895000	102.87
TOTAL	3555000	620000	780000	455000	1195000	295000	60000	3555000	100.00

REMARKS : Support required

1. NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station & utilization of ash in road project

2. Ash Utilization in Mine filling will be subject to allocation of Mines by coal companies and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.

3. Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

4. Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification. 5. Enforcement of provisions of ash utilisation notification by PCB / district administration

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ASH UTILIZATION PLAN 2019-20

*all figures in MT

NAME OF STATION - Korba					Target ANNUAL AU (%)						65.01
TOTAL ASH Generation (Ton)			5432522		AU in 18-19	51.09%					
Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC (MT)	BRICK/BLOCK (MT)	Roads/Embankment *(MT)	Mine filling (MT)	Others (Agriculture & others (MT)	Others (Bottom Ash cover) (MT)	Ash Dyke (Buttresing/ Height raising)	Total (MT)	% Ash Utilization
Apr-19	542136	5920	0	4368	0	19596	0	92331	230000	352215	64.97
May-19	444325	22592	0	3023	0	15283	0	74081	253000	367979	82.82
Jun-19	474472	22912	0	668	0	16624	0	79566	220000	339770	71.61
Q-1	1460933	51424	0	8059	0	51503	0	245978	703000	1059964	72.55
Jul-19	365783	0	0	752	0	10816	0	63061	182000	256629	70.16
Aug-19	347153	0	0	568	0	1776	0	68231	181000	251575	72.47
Sep-19	388653	20000	0	10000	0	21000	0	67730	80000	198730	51.13
Q-2	1101589	20000	0	11320	0	33592	0	199022	443000	706934	64.17
Oct-19	450000	24000	1000	25000	5000	50000	0	65000	80000	250000	55.56
Nov-19	480000	25000	1000	30000	7000	60000	1000	70000	90000	284000	59.17
Dec-19	480000	30000	2000	31000	7000	60000	1000	70000	90000	291000	60.63
Q-3	1410000	79000	4000	86000	19000	170000	2000	205000	260000	825000	58.51
Jan-20	480000	35000	2000	32000	7000	65000	1000	70000	94000	306000	63.75
Feb-20	490000	35000	2000	32000	7000	60000	1000	70000	110000	317000	64.69
Mar-20	490000	35000	2000	32000	7000	60000	1000	70000	110000	317000	64.69
Q-4	1460000	105000	6000	96000	21000	185000	3000	210000	314000	940000	64.38
TOTAL	5432522	255424	10000	201379	40000	440096	5000	860000	1720000	3531898	65.01
Remarks/support Required											

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station

* Ash Utilization in Mine filling will be subject to allocation of further Mines SECL and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.

*Subject to use of ash in low lying area development with in 300 Kms radius from power plant by fly ash only as per MoEF& CC gazzette notification

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
*Enforcement of provisions of ash utilisation notification by PCB / district administration

Proof Read

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ASH UTILIZATION PLAN 2020-21

*all figures in MT

NAME OF STATION - Korba — **Target ANNUAL AU (%)** — **100.06**

TOTAL ASH Generation (MT) — **5432522**

Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC(MT)	BRICK/BLOCK (MT)	Roads/Embankment^ (MT)	Mine filling (MT) ❖	Others Agriculture & others (MT)	Others (Bottom Ash cover) (MT)	Ash Dyke (Buttresing/ Height raising)	Total	% Ash Utilization
Apr-20	542136	36500	1000	20000	0	150000	500	71500	150000	429500	79.22
May-20	444325	36500	1000	20000	0	150000	500	71500	150000	429500	96.66
Jun-20	474472	36500	1000	20000	0	150000	500	71500	150000	429500	90.52
Q-1	1460933	109500	3000	60000	0	450000	1500	214500	450000	1288500	88.20
Jul-20	365763	21500	1000	10000	0	130000	500	71500	100000	334500	91.45
Aug-20	347153	21500	1000	10000	0	130000	500	62500	150000	375500	108.17
Sep-20	388653	21500	1000	10000	0	130000	500	62500	150000	375500	96.62
Q-2	1101589	64500	3000	30000	0	390000	1500	196500	400000	1085500	98.54
Oct-20	450000	36500	1000	20000	0	210000	500	62500	150000	480500	106.78
Nov-20	480000	36500	1000	20000	0	210000	500	62500	150000	480500	100.10
Dec-20	480000	36500	1000	20000	0	210000	500	71000	150000	489000	101.88
Q-3	1410000	109500	3000	60000	0	630000	1500	196000	450000	1450000	102.84
Jan-21	480000	36500	1000	25000	30000	210000	500	71000	160000	534000	111.25
Feb-21	490000	36500	1000	20000	40000	210000	500	71000	160000	539000	110.00
Mar-21	490000	36500	1000	20000	40000	210000	500	71000	160000	539000	110.00
Q-4	1460000	109500	3000	65000	110000	630000	1500	213000	480000	1612000	110.41
TOTAL ASH UTILIZAION	**5432522**	**393000**	**12000**	**215000**	**110000**	**2100000**	**6000**	**820000**	**1780000**	**5436000**	**100.08**

Remarks/support Required

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station
* Ash Utilization in Mine filling will be subject to allocation of further Mines SECL and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.

*Subject to use of ash in low lying area development with in 300 Kms radius from power plant by fly ash only as per MoEF& CC gazzette notification

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
*Subject to allotment and feasibility of ash utilisation in abandoned mines.
*Enforcement of provisions of ash utilisation notification by PCB / district administration

S.N. 87

(87)

ASH UTILIZATION PLAN 2019-20

NAME OF STATION - Vindhyachal				Target ANNUAL AU (%)		51.19	AU in 18-19		32.12%	
TOTAL ASH Generation (Ton)			8210411							
Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC	BRICK/BLOCK (MT)	Roads/ Embankment * * (MT)	Mine filling (MT) *	Others (Agriculture & others (MT)	Ash Dyke Raising(MT)	Total (MT)	% AU
Apr'19	706234	30000	19980	5750	0	0	8000	247800	311510	44.11
May'19	716909	35000	2800	3510	0	0	10000	180000	231310	32.26
Jun'19	802820	30000	1800	4790	0	0	10000	152910	199500	24.85
Q - 1	2225963	95000	24580	14050	0	0	28000	580710	742320	33.36
Jul'19	805378	19000	440	4970	0	0	25000	125000	174410	21.66
Aug'19	889546	4000	120	4810	0	0	10500	105870	125300	14.41
Sep-19	725866	30000	5000	12000	0	4000	0	329220	380220	52.38
Q - 2	2400790	53000	5560	21780	0	4000	35500	660090	679930	28.32
Oct-19	605000	60000						326294	386294	63.85
Nov-19	605000	60000		50000		85000		213448	408448	67.51
Dec-19	605000	60000	100000	50000	100000	80000		92630	482630	79.77
Q-3	1815000	180000	100000	100000	100000	165000	0	632372	1277372	70.38
Jan-20	620000	56000	100000	75000	110000	100000	5000	49348	495348	79.89
Feb-20	569330	60000	100000	79000	120000	100000	5000	38816	502816	88.32
Mar-20	579328	61000	100000	79000	130000	120000	5000	10325	505325	87.23
Q-4	1768658	177000	300000	233000	360000	320000	15000	98489	1503489	85.01
TOTAL ASH UTILIZAION	8210411	505000	430120	368830	460000	489000	78500	1871661	4203111	51.19

Remarks/Support required

*Subject to permission by SPCB & DGMS clearance by concerned authorities for taking up ash filling in Gorbi Mine

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station and use of ash in road project

*Subject to low lying area development with in 100 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification and clearance by MPPCB.

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
* Enforcement of provisions of ash utilisation notification by PCB / district administration

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(87)

ASH UTILIZATION PLAN 2020-21										
NAME OF STATION - Vindyachal				Target ANNUAL AU (%)		100.06				
TOTAL ASH Generation (Ton)			7950000							
Monthly Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC (MT)	BRICK/BLOCK Outside and NTPC	Roads/Embankment**(MT)	Mine filling*(MT)	Others (Agriculture & others (MT)	Ash Dyke Raising (MT)	Total (MT)	% AU
Apr-20	635000	80000	95000	75000	125000	180000	5000	75000	635000	100.00
May-20	675000	80000	95000	75000	125000	240000	5000	75000	695000	102.96
Jun-20	675000	80000	95000	75000	125000	240000	5000	75000	695000	102.96
Q-1	1985000	240000	285000	225000	375000	660000	15000	225000	2025000	102.02
Jul-20	635000	80000	90000	65000	75000	190000	5000	75000	580000	91.34
Aug-20	685000	80000	90000	65000	95000	190000	5000	75000	600000	87.59
Sep-20	685000	80000	90000	65000	105000	190000	5000	75000	610000	89.05
Q-2	2005000	240000	270000	195000	275000	570000	15000	225000	1790000	89.28
Oct-20	635000	95000	130000	70000	165000	170000	5000	75000	710000	111.81
Nov-20	685000	90000	130000	70000	165000	180000	5000	75000	715000	104.38
Dec-20	655000	90000	130000	70000	145000	150000	5000	75000	665000	101.53
Q-3	1975000	275000	390000	210000	475000	500000	15000	225000	2090000	105.82
Jan-21	655000	95000	150000	50000	175000	130000	5000	75000	680000	103.82
Feb-21	675000	95000	150000	50000	170000	140000	5000	75000	685000	101.48
Mar-21	655000	95000	150000	50000	170000	140000	5000	75000	685000	104.58
Q-4	1985000	285000	450000	150000	515000	410000	15000	225000	2050000	103.27
TOTAL	7950000	1040000	1395000	780000	1640000	2140000	60000	900000	7955000	100.06

Remarks/Support required

*Subject to permission by SPCB & DGMS clearance by concerned authorities for taking up ash filling in Gorbi Mine

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station & use of ash in road project

*Subject to low lying area development with in 100 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification and clearance by MPPCB.

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

* Enforcement of provisions of ash utilisation notification by PCB / district administration

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S.N. 88

(88)

			ASH UTILIZATION PLAN 2019-20					
NAME OF STATION - Sipat			AU in 2018-19	49.54%	Target annual AU %	69.97		
TOTAL ASH Generation (MT)		5005409						
Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC (MT)	BRICK/BLOCK (MT)	Roads/Rail Embankment* (MT)	Others(Dyke raising, Agriculture & others (MT)	Total (MT)	% Ash Utilization
Apr-19	482661	12600	69475	34920	1085	61000	179080	37.10
May-19	435841	0	47950	29310	1505	20250	99015	22.71
Jun-19	359865	0	56625	34630	4100	18520	113775	31.62
Q-1	1278467	12600	173950	98860	6690	99770	391870	30.65
Jul-19	521943	0	47900	38180	9760	16500	114340	21.91
Aug-19	395000	10000	48000	21000	15000	20000	114000	28.86
Sep-19	390000	30000	70000	36000	60000	50000	246000	63.08
Q-2	1306943	40000	165900	95180	84760	86500	474340	36.29
Oct-19	390000	65000	81000	36000	210000	50000	432000	110.77
Nov-19	390000	65000	81000	36000	210000	50000	432000	110.77
Dec-19	410000	55000	81000	36000	210000	50000	432000	105.37
Q-3	1190000	185000	243000	108000	630000	150000	1296000	108.91
Jan-20	410000	60000	90000	40000	210000	50000	450000	109.76
Feb-20	410000	55000	90000	40000	210000	50000	445000	108.54
Mar-20	410000	55000	90000	40000	210000	50000	445000	108.54
Q-4	1230000	170000	270000	120000	630000	150000	1340000	108.94
TOTAL	5005409	397600	852850	422040	1351460	488270	3502210	69.97

Remarks/Support required

The following support is required in achieving the this AU plan
1. Allocation of low lying land for ash filling by district mining officer / Collector / SDM with in 300 Km of power plant.
2. Allocation of coal mines for backfilling / stowing and clearance from DGMS/SPCB/MOEF & CC etc.
3.Subject to use pond ash in place of earth in the on-going road and upcoming projects by NHAI. NTPC Sipat has gone a step ahead and is making pond ash available at their NHAI project site with bearing of ash transportation cost in line with MoEF&CC notification 25.01.2016.
4. State PWD and PMGSY use pond ash in its roads/highways project. NTPC shall bear the cost of ash transportation as per MoEF&CC notification 25.01.2016.
5.Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
6. Enforcement of provisions of ash utilisation notification by PCB / district administration.

Not Verified

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ASH UTILIZATION PLAN 2020-21

NAME OF STATION - Sipat

TOTAL ASH Generation (Ton) 4900000 — **Target annual AU %** 100.00

Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT/RMC	BRICK/BLOCK (MT)	Roads/Embankment (MT)	Mine Filling (MT)	Others(Dyke raising, Agriculture & others (MT)	Total (MT)	% Ash Utilization
Apr-20	430000	40000	100000	50000	150000	50000	35000	425000	98.84
May-20	430000	40000	100000	50000	150000	60000	50000	450000	104.65
Jun-20	430000	40000	100000	50000	150000	60000	50000	450000	104.65
Q-1	1290000	120000	300000	150000	450000	170000	135000	1325000	102.71
Jul-20	390000	20000	60000	35000	120000	70000	20000	325000	83.33
Aug-20	390000	20000	60000	35000	120000	70000	20000	325000	83.33
Sep-20	410000	20000	60000	35000	120000	70000	20000	325000	79.27
Q-2	1190000	60000	180000	105000	360000	210000	60000	975000	81.93
Oct-20	390000	40000	90000	50000	150000	80000	40000	450000	115.38
Nov-20	390000	40000	90000	50000	150000	80000	40000	450000	115.38
Dec-20	410000	40000	90000	50000	150000	80000	40000	450000	109.76
Q-3	1190000	120000	270000	150000	450000	240000	120000	1350000	113.45
Jan-21	410000	50000	100000	50000	140000	90000	40000	470000	114.63
Feb-21	410000	50000	100000	50000	150000	90000	40000	390000	95.12
Mar-21	410000	50000	100000	50000	150000	90000	40000	390000	95.12
Q-4	1230000	150000	300000	150000	440000	270000	120000	1250000	101.63
TOTAL (MT)	**4900000**	**450000**	**1050000**	**555000**	**1700000**	**890000**	**435000**	**4900000**	100.00

Remarks/Support required

The following support is required in achieving the this AU plan

1. Allocation of low lying land for ash filling by district mining officer / Collector / SDM with in 300 Km radius of power plant.
2. Allocation of coal mines for backfilling / stowing and clearance from DGMS/SPCB/MoEF& CC etc.
3. Subject to use pond ash in place of earth in the on-going road and upcoming projects. NTPC Sipat has gone a step ahead and is making pond ash available at their NHAI project site with bearing of ash transportation cost in line with MoEF&CC notification 25.01.2016.
4. State PWD and PMGSY use pond ash in its roads/highways project. NTPC shall bear the cost of ash transportation as per MoEF&CC notification 25.01.2016.
5. Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
6. Enforcement of provisions of ash utilisation notification by PCB / district administration.

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S.N. 89

(89)

ASH UTILIZATION PLAN 2019-20

NAME OF STATION - Kahalgaon

Total Ash Generation (Ton) - 4150000 | Target annual AU % -85

Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT	BRICK/ BLOCK (MT)	Own Brick Plant (Fly ash)	Own Brick Plant (Bottom ash)	Roads/Embankment* (MT)	BA/FA to brick clinicay	Dyke Raising	Buttressing	Others (Agriculture & others (MT)	Total (MT)	% Ash Utilization
Apr-20	340000	30000	75000	20000	3000	2000	30000	20000	40000		40000	260000	76.47
May-20	340000	30000	75000	20000	3000	2000	30000	20000	40000		40000	260000	76.47
Jun-20	340000	30000	75000	20000	3000	2000	25000	20000	60000		40000	275000	80.88
Q-1	1020000	90000	225000	60000	9000	6000	85000	60000	140000	0	120000	795000	77.94
Jul-20	350000	30000	70000	20000	3000	2000	30000	20000	60000		30000	265000	75.71
Aug-20	360000	30000	70000	20000	3000	2000	30000	15000	60000		30000	260000	72.22
Sep-20	350000	10000	90000	15000	3000	2000	30000	15000	20000	40000	30000	255000	70.83
Q-2	1060000	70000	230000	55000	9000	6000	90000	50000	140000	40000	90000	780000	73.90
Oct-20	340000	10000	90000	15000	3000	2000	70000	15000	20000	40000	30000	295000	86.76
Nov-20	350000	10000	90000	15000	3000	2000	80000	15000	20000	40000	30000	305000	87.14
Dec-20	350000	10000	90000	15000	3000	2000	100000	15000	20000	40000	30000	325000	92.86
Q-3	1040000	30000	270000	45000	9000	6000	250000	45000	60000	120000	90000	975000	93.94
Jan-21	340000	10000	90000	15000	3000	2000	100000	25000	20000	40000	25000	330000	97.06
Feb-21	340000	10000	90000	15000	3000	2000	115000	25000	20000	40000	25000	345000	101.47
Mar-21	340000	10000	95000	15000	3000	2000	120000	25000	20000	40000	25000	355000	104.41
Q-4	1020000	30000	275000	45000	9000	6000	335000	75000	60000	120000	75000	1035000	101.96
TOTAL (MT)	4150000	220000	1000000	205000	36000	24000	760000	230000	400000	280000	375000	3630000	95.06

Remarks/Support required

1. NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station and use of ash
2. Ash Utilization in Mine filling will be subject to allocation of Mines by coal companies and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.
3. Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.
4. Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
5. Enforcement of provisions of ash utilisation notification by PCB / district administration

ASH UTILIZATION PLAN 2020-21

NAME OF STATION - Kahalgaon

Total Ash Generation (Ton) - 4154000 | **Target annual AU % -100**

Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT	BRICK/BLOCK (MT)	Own Brick Plant (Fly ash)	Own Brick Plant (Bottom ash)	Roads/ Embankment* (MT)	BA/FA to brick clin/clay	Dyke Raising	Buttressing	Others (Agriculture & others (MT)	Total (MT)	% Ash Utilization
Apr-20	340000	2000	75000	15000	3000	2000	110000	10000	40000	50000	30000	337000	99.12
May-20	340000	2000	75000	15000	3000	2000	110000	10000	40000	50000	30000	337000	99.12
Jun-20	340000	2000	75000	15000	3000	2000	110000	10000	40000	50000	30000	337000	99.12
Q-1	1020000	6000	225000	45000	9000	6000	330000	30000	120000	150000	90000	1011000	99.12
Jul-20	354000	2000	70000	10000	3000	2000	110000	10000	40000	50000	30000	327000	92.37
Aug-20	360000	2000	70000	10000	3000	2000	110000	10000	40000	50000	30000	327000	90.83
Sep-20	360000	2000	90000	10000	3000	2000	110000	10000	40000	50000	30000	347000	96.39
Q-2	1074000	6000	230000	30000	9000	6000	330000	30000	120000	150000	90000	1001000	93.20
Oct-20	340000	2000	90000	10000	3000	2000	110000	10000	40000	50000	30000	347000	102.06
Nov-20	350000	2000	90000	10000	3000	2000	110000	10000	40000	50000	30000	347000	99.14
Dec-20	350000	2000	90000	10000	3000	2000	110000	10000	40000	60000	30000	357000	102.00
Q-3	1140000	6000	270000	30000	9000	6000	330000	30000	120000	160000	90000	1151000	101.00
Jan-21	340000	2000	90000	15000	3000	2000	110000	10000	40000	60000	30000	362000	106.47
Feb-21	340000	2000	90000	15000	3000	2000	110000	10000	40000	60000	30000	362000	106.47
Mar-21	340000	2000	95000	15000	3000	2000	110000	10000	40000	60000	30000	367000	107.94
Q-4	1020000	6000	275000	45000	9000	6000	330000	30000	120000	180000	90000	1091000	106.96
TOTAL (MT)	**4154000**	**24000**	**1000000**	**150000**	**36000**	**24000**	**1320000**	**120000**	**480000**	**640000**	**360000**	**4154000**	**100.00**

Remarks /support Required

1. NTPC has approved format of MOU with NHAI . Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station & use ash

2. Ash Utilization in Mine filling will be subject to allocation of Mines by coal companies and SPCB & DGMS clearances by concerned Authorities for taking up ash filling in Mine.
3. Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.
4. Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.
5.Enforcement of provisions of ash utilisation notification by PCB / district administration

S.N. 90

(90)

ASH UTILIZATION PLAN 2019-20

NAME OF STATION : NTPC Barh								
ANNUAL ASH Generation (Ton)			2421000	ANNUAL ASH UTILIZAION (%)	77.32	AU in 18-19	50.07%	
ANNUAL ASH UTILIZATION (Ton)			1872000					
Month/ Area	Ash Generation (Ton)	Low Lying area Development (MT)	CEMENT/RMC/ Asbestos(In MT)	BRICK/BLOCK (MT)	Roads/Embankment *(MT)	Others(Agriculture & others (MT)	Total (MT)	Monthly % Ash Utilization
Apr-19	171000	0	32000	20000	100000	5000	157000	91.81
May-19	190000	0	32000	20000	80000	5000	137000	72.11
Jun-19	200000	0	32000	20000	80000	5000	137000	68.50
Q-1	561000	0	96000	60000	260000	15000	431000	76.83
Jul-19	200000	10000	35000	12000	80000	5000	142000	71.00
Aug-19	200000	10000	35000	12000	80000	5000	142000	71.00
Sep-19	200000	10000	35000	12000	80000	5000	142000	71.00
Q-2	600000	30000	105000	36000	240000	15000	426000	71.00
Oct-19	210000	15000	40000	20000	80000	5000	160000	76.19
Nov-19	210000	15000	42000	20000	80000	5000	162000	77.14
Dec-19	210000	15000	45000	20000	90000	5000	175000	83.33
Q-3	630000	45000	127000	60000	250000	15000	497000	78.89
Jan-20	210000	15000	45000	15000	90000	5000	170000	80.95
Feb-20	210000	15000	45000	18000	90000	5000	173000	82.38
Mar-20	210000	15000	45000	20000	90000	5000	175000	83.33
Q-4	630000	45000	135000	53000	270000	15000	518000	82.22
TOTAL ASH UTILIZAION (In Ton)	**2421000**	**120000**	**463000**	**209000**	**1020000**	**60000**	**1872000**	**77.32**

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

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ASH UTILIZATION PLAN 2020-21

NAME OF STATION : NTPC Barh

ANNUAL ASH Generation (Ton)			**2411000**	**ANNUAL ASH UTILIZAION (%)**	**100.08**	**AU in 18-19**	**50.07%**
ANNUAL ASH UTILIZATION (Ton)			**2413000**				
Month/ Area	**Ash Generation (Ton)**	**Low Lying area Development (MT)**	**CEMENT/RMC/ Asbestos(In MT)**	**BRICK/BLOCK (MT)**	**Roads/Embankment *(MT)**	**Others(Agriculture & others (MT)**	**Total (MT)**	**Monthly % Ash Utilization**
Apr-20	191000	20000	45000	20000	100000	5000	190000	99.48
May-20	190000	20000	45000	20000	100000	5000	190000	100.00
Jun-20	200000	20000	45000	20000	120000	5000	210000	105.00
Q-1	581000	60000	135000	60000	320000	15000	590000	101.55
Jul-20	190000	20000	40000	15000	90000	5000	170000	89.47
Aug-20	190000	20000	40000	15000	80000	5000	160000	84.21
Sep-20	190000	20000	40000	15000	90000	5000	170000	89.47
Q-2	570000	60000	120000	45000	260000	15000	500000	87.72
Oct-20	210000	25000	50000	20000	110000	5000	220000	104.76
Nov-20	210000	25000	60000	20000	110000	5000	220000	104.76
Dec-20	210000	25000	60000	20000	115000	5000	225000	107.14
Q-3	630000	75000	180000	60000	335000	15000	665000	105.56
Jan-21	210000	25000	65000	15000	110000	5000	220000	104.76
Feb-21	210000	25000	60000	18000	110000	5000	218000	103.81
Mar-21	210000	25000	60000	20000	110000	5000	220000	104.76
Q-4	630000	75000	185000	53000	330000	15000	658000	104.44
TOTAL ASH UTILIZAION (In Ton)	**2411000**	**270000**	**620000**	**218000**	**1245000**	**60000**	**2413000**	**100.08**

* NTPC has approved format of MOU with NHAI. Ash Utilization in road project will be subject to signing of MOU by the Concerned PIU of NHAI with the station.

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

S.N. 91

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ASH UTILIZATION PLAN 2019-20

NAME OF STATION - Talcher-Kaniha				Proposed Revised Target Annual AU (%)			65.069		AU in 18-19	50.19%
				Total ASH Generation (Ton)			7403109			
Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT / RMC (MT)	BRICK /BLOCK (MT)	Roads/Embankment **(MT)			Mine filling *(MT)	Others (Agriculture, Asbestos & others (MT)	Total AU Plan (MT)	% Ash Utilization
					Roads (NHAI)	Ash Dyke Embankment Raising / Butressing	Total of Roads & Ash Dyke Embankment				
Apr-19	678164	10000	0	7864	97758	305000	402758	0	3259	423881	63%
May-19	757326	0	0	9506	83012	328384	411396	0	2859	423761	56%
Jun-19	575260	0	0	7475	36020	257830	293850	0	1885	303210	53%
Q-1	2010750	10000	0	24845	216780	891214	1108004	0	8003	1150852	57%
Jul-19	554383	0	0	6238	21750	221330	243080	0	2136	251454	45%
Aug-19	412976	0	0	5990	25708	216560	242268	0	1281	249539	60%
Sep-19	605000	0	0	6500	50000	220000	270000	0	2300	278800	46%
Q-2	1572359	0	0	18728	97458	657890	755348	0	5717	779793	50%
Oct-19	655000	10000	0	8000	75000	280000	355000	0	2500	375500	57%
Nov-19	605000	22000	0	8000	80000	300000	380000	0	2500	412500	68%
Dec-19	605000	24000	0	10000	90000	300000	390000	16500	2500	443000	73%
Q-3	1865000	56000	0	26000	245000	880000	1125000	16500	7500	1231000	66%
Jan-20	655000	31000	5000	10000	100000	310000	410000	90000	2500	548500	84%
Feb-20	645000	33000	5000	10000	100000	310000	410000	90000	2500	550500	85%
Mar-20	655000	35000	5000	10000	103000	310000	413000	90000	2500	555500	85%
Q-4	1955000	99000	15000	30000	303000	930000	1233000	270000	7500	1654500	85%
TOTAL	7403109	185000	15000	89573	862248	3359104	4221352	286500	28720	4816145	65%
Remarks/Support required											

* Subject to start of disposal of Ash in Jagannath Mines from Dec'19

** Subject to release of fronts and also acceptance by NHAI in operating the already signed MoUs in line with its stipulatuions

*Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

* Enforcement of provisions of ash utilisation notification by PCB / district administration

Remove Watermark Now

ASH UTILIZATION PLAN 2020-21

NAME OF STATION - Talcher-Kaniha

Proposed Annual AU (%): 100.00%

Total ASH Generation (Ton): 7313109

Month/ Area	Ash Generation (MT)	Low Lying area Development (MT)	CEMENT / RMC (MT)	BRICK /BLOCK (MT)	Roads/Embankment **(MT)			Mine filling *(MT)	Others (Agriculture, Asbestos & others (MT)	Total AU Plan (MT)	% Ash Utilization
					Roads (NHAI)	Ash Dyke Embankment Raising / Buttressing	Total of Roads & Ash Dyke Embankment				
Apr-20	678164	10000	4000	4000	125000	3,10,000	435000	90000	2500	545500	80%
May-20	757326	10000	6000	6000	160000	310000	470000	90000	2500	584500	77%
Jun-20	575260	8000	8000	8000	200000	250000	450000	90000	2500	566500	98%
Q-1	2010750	28000	18000	18000	485000	870000	1355000	270000	7500	1696500	84%
Jul-20	554383	7000	7000	7000	175000	220000	395000	90000	2500	508500	92%
Aug-20	412976	6000	7000	7000	160000	2,20,000	380000	90000	2500	492500	119%
Sep-20	605000	7000	7000	10000	175000	2,20,000	395000	90000	2500	511500	85%
Q-2	1572359	20000	21000	24000	510000	660000	1170000	270000	7500	1512500	96%
Oct-20	655000	10000	9000	20000	250000	2,80,000	530000	90000	2500	661500	101%
Nov-20	605000	12000	10000	10000	250000	3,00,000	550000	90000	2500	674500	111%
Dec-20	605000	15000	10000	10000	250000	3,00,000	550000	90000	2500	677500	112%
Q-3	1865000	37000	29000	40000	750000	880000	1630000	270000	7500	2013500	108%
Jan-21	655000	20000	10000	10000	254000	3,10,000	564000	90000	2500	696500	106%
Feb-21	605000	20000	10000	10000	251000	3,10,000	561000	90000	2500	693500	115%
Mar-21	605000	25000	12000	12000	249109	3,10,000	559109	90000	2500	700609	116%
Q-4	1865000	65000	32000	32000	754109	930000	1684109	270000	7500	2090609	112%
TOTAL	7313109	150000	100000	114000	2499109	3340000	5839109	1080000	30000	7313109	100%

Remarks/Support Required

* Subject to disposal of Ash in Jagannath Mines from Dec'19

** Subject to release of fronts and also acceptance by NHAI in operating the already signed MoUs in line with its stipulatuions

* Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

* Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

* Enforcement of provisions of ash utilisation notification by PCB / district administration

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S.N. 92

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AU in 2018-19	30.70%		ASH UTILIZATION PLAN 2019-20			All ash figures in MT		
NAME OF STATION :NTPC Bongaigaon								
TOTAL ASH Generation (MT)			741000		Target ANNUAL AU (%)		74.49	
Month/ Area	Ash Generation (MT)	Low Lying area Decelopment (MT)	CEMENT/ RMC etc.(MT)	BRICK/BLOCK (MT)	Roads/embankment (MT)	Others(Agriculture & others (MT)	Total (MT)	% AU
Apr-19	57000	0	25000	5000	0	5000	35000	61.40
May-19	57000	0	25000	5000	0	5000	35000	61.40
Jun-19	57000	0	25000	5000	0	5000	35000	61.40
Q-1	171000	0	75000	15000	0	15000	105000	61.40
Jul-19	55000	0	25000	5000	0	5000	35000	63.64
Aug-19	55000	0	30000	5000	0	5000	40000	72.73
19-Sep	55000	0	30000	5000	0	5000	40000	72.73
Q-2	165000	0	85000	15000	0	15000	115000	69.70
Oct-19	50000	0	35000	5000	0	5000	45000	90.00
19-Nov	65000	0	42000	5000	0	5000	52000	80.00
Dec-19	65000	0	42000	5000	0	5000	52000	80.00
Q-3	180000	0	119000	15000	0	15000	149000	82.78
Jan-20	75000	10000	40000	5000	0	5000	60000	80.00
Feb-20	75000	10000	40000	5000	0	5000	60000	80.00
Mar-20	75000	10000	40000	8000	0	5000	63000	84.00
Q-4	225000	30000	120000	18000	0	15000	183000	81.33
TOTAL	741000	30000	399000	63000	0	60000	552000	74.49

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

Requested Paper

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AU in 2018-19	30.70%		ASH UTILIZATION PLAN 2020-21			All ash figures in MT		
NAME OF STATION :NTPC Bongaigaon								
TOTAL ASH Generation (MT)			801000	Target ANNUAL AU (%)		100.00		
Month/ Area	Ash Generation (MT)	Low Lying area Decelopment (MT)	CEMENT/ RMC etc.(MT)	BRICK/BLOCK (MT)	Roads/embankment (MT)	Others(Agriculture & others (MT)	Total (MT)	% AU
Apr-20	67000	0	55000	8000	0	5000	68000	101.49
May-20	67000	0	55000	8000	0	5000	68000	101.49
Jun-20	67000	0	55000	8000	0	5000	68000	101.49
Q-1	201000	0	165000	24000	0	15000	204000	101.49
Jul-20	60000	0	50000	2000	0	5000	57000	95.00
Aug-20	65000	0	50000	5000	0	5000	60000	92.31
01-Sep	55000	0	48000	5000	0	5000	58000	105.45
Q-2	180000	0	148000	12000	0	15000	175000	97.22
Oct-20	65000	8000	48000	5000	0	5000	66000	101.54
01-Nov	65000	8000	47000	5000	0	5000	65000	100.00
Dec-20	65000	8000	48000	5000	0	5000	66000	101.54
Q-3	195000	24000	143000	15000	0	15000	197000	101.03
Jan-21	75000	10000	50000	10000	0	5000	75000	100.00
Feb-21	75000	10000	50000	10000	0	5000	75000	100.00
Mar-21	75000	10000	50000	10000	0	5000	75000	100.00
Q-4	225000	30000	150000	30000	0	15000	225000	100.00
TOTAL	801000	54000	606000	81000	0	60000	801000	100.00

Subject to low lying area development with in 300 Kms radius from power plant by fly ash as per MoEF& CC gazzette notification.

*Subject to use of fly ash bricks/blocks/tiles by all construction agencies with in 300 KM radius of thermal power plant as per MoEF & CC Gazzette Notification.

Received

S.N. 93 Annex

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Format for Ash Utilisation Action Plan

Name of the Unit: Yeramarus Thermal Power Station

Power Generation Capacity : 1600 MW (2x800 MW)

Fly Ash Generation and Utilization in previous two Years:

	2017-18	2018-19
Fly ash Generation in MT:	1 75 427.62	1 22 518.86
Fly ash Utilisation in MT:	0.00	39 986.00

Fly Ash Utilisation Action Plan (Quarter wise)*:

Sl No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash+Bed Ash)	MT	NIL	65 625 MT	3 15 000 MT	4 72 500 MT	
B	Ash Utilisation						
i)	Brick Manufacturing	MT	-	-	-	-	
ii)	Ready Mix Concrete	MT	-	-	-	-	
iii)	Low Lying area filling/Area Development	MT	-	-	-	-	
iv)	Road Construction	MT	-	-	-	-	
v)	Filling of abandoned stone quarry	MT	-	-	-	-	
vi)	Mines void filling	MT	-	-	-	-	
vii)	Agriculture Utilisation	MT	-	-	-	-	
viii)	If any other area (specify)						
a)	**Cement Industries**	MT	-	46 000 MT	2 20 500 MT	3 30 750 MT	
	Total Ash Utilisation	MT	-	46 000 MT	2 20 500 MT	3 30 750 MT	5 97 250 MT
C	**Ash Utilisation percentage**	%	-	70	70	70	70
			-	100	100	100	100

Note: **Fly Ash Utilisation Percentage**

Ash Generation depends upon Load Demand,As per LDC

Name of the Authorsied Person: Sri Narasimha Aithal, SE(MM-1)

Signature: 15/7/19

E-mail id: semm1ytps@karnatakpower.com

Phone no.: 94806 82554

*** Note : TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.**

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Format for Ash Utilisation Action Plan

Name of the Unit: Yeramarus Thermal Power Station
Power Generation Capacity : 1600 MW (2x800 MW)
Fly Ash Utilisation Action Plan (Quarter wise)*:

Year 2020-21

Sl No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-2021
A	Ash Generation (Fly Ash+Bed Ash)	MT	4 72 500 MT	4 72 500 MT	4 72 500 MT	4 72 500 MT	18 90 000 MT
B	Ash Utilisation						
i)	Brick Manufacturing	MT	-	-	-	-	
ii)	Ready Mix Concrete	MT	-	-	-	-	
iii)	Low Lying area filling/Area Development	MT	-	-	-	-	
iv)	Road Construction	MT	-	-	-	-	
v)	Filling of abandoned stone quarry	MT	-	-	-	-	
vi)	Mines void filling	MT	-	-	-	-	
vii)	Agriculture Utilisation	MT	-	-	-	-	
viii)	If any other area (specify)						
a)	**Cement Industries**	MT	4 72 500 MT	4 72 500 MT	4 72 500 MT	4 72-500 MT	18 90 000 MT
	Total Ash Utilisation	MT	4 72 500 MT	4 72 500 MT	4 72 500 MT	4 72 500 MT	18 90 000 MT
C	**Ash Utilisation percentage**	%	100	100	100	100	100

Note: **YTPS Wet Ash is pumped to RTPS Ash Pond.**

These Pond Ash Utilization from RTPS Pond will be Proportional and will be 100%.

Ash Generation depends upon Load Demand, as per LDC

Name of the Authorsied Person: Sri Narasimha Aithal, SE(MM-1)

Signature: 19/7/19

E-mail id: semmlytps@karnatakpower.com

Phone no.: 94806 82554

* **Note : TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.**

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Fly Ash Utilization Status

Period	Fly Ash Generation (MT)	Bottom Ash Generation (MT)	Ash Utilisation (MT)
Year 2018-19	8,87,448	1,45,329	7,78,024
Year 2017-18	10,00,096	2,49,907	3,08,472

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Fly Ash Utilization Action Plan for 2 years

S.N.	Description	Unit	2019-20 Q1	2019-20 Q2	2019-20 Q3	2019-20 Q4	Total Fly Ash Utilisation in FY 2019-20
	Total Ash Utilisation	MT	1,76,743	1,23,282	2,27,806	3,16,448	8,44,279
	Ash Utilisation percentage	%	51%	72%	77%	81%	70%
S.N.	**Description**	**Unit**	**2020-21 Q1**	**2020-21 Q2**	**2020-21 Q3**	**2020-21 Q4**	**Total Fly Ash Utilisation in FY 2020-21**
	Total Ash Utilisation	MT	3,05,682	2,63,493	3,03,625	3,29,333	12,02,133
C	Ash Utilisation percentage	%	**85%**	**85%**	**85%**	**85%**	**85%**

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Revised Action Plan

S.N. 95

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Format for Ash Utilisation Action Plan [SASAN POWER LTD.]

1. Name of the Unit: Sasan Ultra Mega Power Project
2. Power Generation Capacity: 3960 MW (6x660MW)
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Years	Fly Ash Generation	Fly Ash Utilization*
2017-18	Fly Ash : 4120376 Bottom Ash : 1030097 Total Ash : 5150473	1221310
2018-19	Fly Ash : 4022186 Bottom Ash : 1005547 Total Ash : 5027733	1491694

*Dry Ash utilization; Bottom ash disposed off in ash-pond in slurry mode

4. Fly Ash Utilisation Action Plan (quarter wise) *:

A. Action Plan for FY 2019-20##:

S.N	Description	Unit	Q1 (Actual)	Q2 (Estimated)	Q3 (Estimated)	Q4 (Estimated)	Total Fly Ash Utilisation in FY 2019-20 (Estimated)
A	Ash Generation (Fly Ash + Bed Ash)	MT	FA: 1128406 Bottom Ash: 282102 Total Ash: 1410508	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 4413406 BA: 1103352 Total Ash: 5516758
B	Fly Ash Utilisation	MT	723735	664650	857850	857850	3104085
i)	Brick Manufacturing	MT	331	250	350	350	1281
ii)	Ready Mix Concrete	MT	201	200	250	250	901
iii)	Low Lying area filling/ Area Development	MT	691043	657000	821250	821250	2990543
iv)	Road Construction	MT	00	00	00	00	00
v)	Filling of abandoned stone quarry	MT	00	00	00	00	00

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vi)	Mines void filling	MT	00	00	00	00	00
vii)	Agriculture Utilisation	MT	00	00	00	00	00
viii)	If any other area (specify) Cement	MT	32160	7200	36000	36000	111360
	Total Fly Ash Utilisation	MT	723735	664650	857850	857850	3104085
C	Fly Ash Utilisation percentage	%	64.73	60.70	78.3	78.3	70.33

*Dry Ash utilization; Bottom ash disposed off in ash-pond in slurry mode

B. Action Plan for FY 2020-21##:

S.No.	Description	Unit	Q1 (Estimated)	Q2 (Estimated)	Q3 (Estimated)	Q4 (Estimated)	Total Fly Ash Utilisation in FY 2020-21 (Estimated)*
A	Ash Generation (Fly Ash + Bed Ash)	MT	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 1095000 Bottom Ash: 273750 Total Ash: 1368750	FA: 4380000 BA: 1095000 Total Ash: 5475000
B	Fly Ash Utilisation	MT	1095000	1095000	1095000	1095000	4380000
i)	Brick Manufacturing	MT	1750	1750	1750	1750	7000
ii)	Ready Mix Concrete	MT	2000	2000	2000	2000	8000
iii)	Low Lying area filling/ Area Development	MT	821250	821250	821250	821250	3285000
iv)	Road Construction	MT	90000	90000	90000	90000	360000
v)	Filling of abandoned stone quarry	MT	00	00	00	00	00
vi)	Mines void filling	MT	00	00	00	00	00
vii)	Agriculture Utilisation	MT	00	00	00	00	00
viii)	If any other area (specify) Cement	MT	180000	180000	180000	180000	720000
	Total Fly Ash Utilisation	MT	1095000	1095000	1095000	1095000	4380000
C	Fly Ash Utilisation percentage	%	100	100	100	100	100

*Dry Ash utilization; Bottom ash disposed off in ash-pond in slurry mode

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S.N.96

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Format for Ash Utilisation Action Plan

1. Name of the Unit : Mettur Thermal Power Station - I

2. Power Generation Capacity: 4 X 210 MW

3. Fly ash Generation and Utilisation in previous two years (2017-18 and 2018-19)

Period	Total Ash Generation in MT	Total Utilisation in MT	% of Utilisation
2017-18	11,11,142.900	6,24,025.920	56.16
2018-19	11,46,975.853	9,37,312.470	81.72

4. Fly ash Utilisation Action Plan (quarter wise)

S. No	Description	Unit	Q1	Q2	Q3	Q4	Total fly ash utilisation in Fy 2019-2020
A	Ash Generation (Fly Ash + Bed Ash)	MT	2,69,676.512	270000	270000	270000	10,79,676.512
B	Ash Utilisation	MT					
i)	Brick manufacturing	MT	70,921.220	1,08,150	1,08,150	1,08,150	3,95,371.220
ii)	Ready mix concrete	MT					
iii)	Low lying Area filling / Area development	MT					
iv)	Road Construction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area i) Cement Company ii) Allottees through e-auction	MT	1,69,937.920	339750	339750	339750	11,89,187.920
	Total Ash Utilisation	MT	2,40,859.140	4,47,900	4,47,900	4,47,900	15,84,559.140
C	Ash Utilisation Percentage	%	89.31	165.8	165.8	165.8	146.8

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Name of the Authorized Person: P.RAMACHANDRAN, EE/ O&AHS/ MTPS-I.

Signature: .....

E-mail Id: eeoahmtps@tnebnet.org

Phone No: 9445856773.

S.N. 97

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Format for Ash Utilisation Action Plan

1 Name of the Unit: North Chennai Thermal Power Station -1

2 Power Generation Capacity: 3x210 MW, 630 MW

3 Fly ash generation and utilisation in previous two years (2017-18 and 2018-19)

4 Fly ash Utilisation Action Plan (quarter wise)*:

S.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2017-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	289325	295960	270388	285504	1141177
B	Ash Utilisation	MT					
i)	Brick Manufacturing (SSI)	MT	14999	14163	13161	11496	53819
ii)	Ready Mix Concrete (Cement product)	MT	27533	58739	13164	19083	118519
iii)	Low Lying area filling/ Area Development (Wet)	MT	120022	21760	0	25090	166872
iv)	Road Construction	MT					0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify) (Cement Companies)	MT	0	0	47466	66657	114123
	Total Ash Utilisation	MT	162554	94662	73791	122326	453333
C	Ash Utilisation precentage	%	56.18%	31.98%	27.29%	42.85%	39.73%

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Name of the Authorised Person: M. CHITRA, Chief Engineer/NCTPS-I

Signature:..Sd/--(16.07.2019)

E-mail ID:cenctps@tnebnet.org

Phone No.:044-27950051 & 9445856633

***Note:**

TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.

Remove Watermark Now

Format for Ash Utilisation Action Plan

1. Name of the Unit: North Chennai Thermal Power Station -1

2 Power Generation Capacity: 3x210 MW, 630 MW

3 Fly ash generation and utilisation in previous two years (2017-18 and 2018-19)

4 Fly ash Utilisation Action Plan (quarter wise)*:

S.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	318014	257077	254738	187034	1016863
B	Ash Utilisation	MT					
i)	Brick Manufacturing (SSI)	MT	9393	14878	12960	12997	50228
ii)	Ready Mix Concrete (Cement product)	MT	14119	22133	17841	28233	82326
iii)	Low Lying area filling/ Area Development (Wet)	MT	32448	121976	75296	123246	352966
iv)	Road Construction	MT					0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify) (Cement Companies)	MT	71940	45439	42824	27033	187236
	Total Ash Utilisation	MT	127900	204426	148921	191509	672756
C	Ash Utilisation precentage	%	40.22%	79.52%	58.46%	102.39%	66.16%

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Name of the Authorised Person: **M. CHITRA, Chief Engineer/NCTPS-I**

Signature:.. Sd/--(16.07.2019)

E-mail ID:cenctps@tnebnet.org

Phone No.:044-27950051 & 9445856633

***Note:**

TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.

Remove Watermark Now

Format for Ash Utilisation Action Plan

1 Name of the Unit: North Chennai Thermal Power Station -1

2 Power Generation Capacity: 3x210 MW, 630 MW

3 Fly ash generation and utilisation in previous two years (2017-18 and 2018-19)

4 Fly ash Utilisation Action Plan (quarter wise)*:

S.No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	211442				211442
B	Ash Utilisation	MT					
i)	Brick Manufacturing (SSI)	MT	11826				11826
ii)	Ready Mix Concrete (Cement product)	MT	23099				23099
iii)	Low Lying area filling/ Area Development (Wet)	MT	108134				108134
iv)	Road Costruction	MT					
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	If any other area (specify) (Cement Companies)	MT	61313				61313
	Total Ash Utilisation	MT	204372				204372
C	Ash Utilisation precentage	%	96.66%				96.66%

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Name of the Authorised Person: M. CHITRA, Chief Engineer/NCTPS-I

Signature:.. Sd/--(16.07.2019)

E-mail ID:cenctps@tnebnet.org

Phone No.:044-27950051 & 9445856633

***Note:**

TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.

S.N. 98

Remove Watermark Now

Format for Ash Utilisation Action Plan

1. Name of the Unit: North Chennai Thermal Power station-II,Chennai-120
2. Power Generation Capacity:2x600 MW
3. Fly ash generation and utilisation for the year 2017-18.
4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 17-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	450707	351214	397440	391336	1590697
B	Ash Utilisation	MT	121001	140376	164883	211962	638222
i)	Brick Manufacturing	MT	50009	52539	76306	77387	256241
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling/ Area Development	MT	4828	6026	0	2530	13384
iv)	Road Construction	MT	Nil	Nil	Nil	Nil	Nil
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	Nil	Nil	Nil	Nil
viii)	If any other area (Major Cement Companies & Traders Through E-Auction)	MT	66164	81811	88577	132045	368597
	Total Ash Utilisation	MT	121001	140376	164883	211962	638222
C	Ash Utilisation percentage Average)	%	26.84%	39.96%	41.48%	54.16%	40.12%

pdfelement

Name of the Authorised Person: Er.K.Muthukrishnan., EE/AHP/NCTPS II (At Present)

Signature: -Sd/--(16.09.2019)

E-mail id : eeahpnctps2@tnebnet.org

Phone no. : 9445858539

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Format for Ash Utilisation Action Plan

1. Name of the Unit: North Chennai Thermal Power station-II,Chennai-120
2. Power Generation Capacity:2x600 MW
3. Fly ash generation and utilisation for the year 2018-19 :
4. Fly Ash Utilisation Action Plan(quarter wise)*:
5.

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	499112	383550	488196	417180	1788038
B	Ash Utilisation	MT	267602	256332	232159	382869	1138962
i)	Brick Manufacturing	MT	68021	66163	79422	74957	288563
ii)	Ready Mix Concrete	MT	Nil	Nil	Nil	Nil	Nil
iii)	Low Lying area filling/ Area Development	MT	Nil	Nil	Nil	66200	66200
iv)	Road Construction	MT	Nil	Nil	Nil	Nil	Nil
v)	Filling of abandoned stone quarry	MT	Nil	Nil	Nil	Nil	Nil
vi)	Mines void filling	MT	Nil	Nil	Nil	Nil	Nil
vii)	Agriculture Utilisation	MT	Nil	Nil	Nil	Nil	Nil
viii)	If any other area (Major Cement Companies & Traders Through E-Auction)	MT	199581	190169	152737	241712	784199
	Total Ash Utilisation	MT	267602	256332	232159	382869	1138962
C	Ash Utilisation percentage Average)	%	53.61%	66.83%	47.55%	91.77%	63.69%

pdfelement

Name of the Authorised Person: Er.K.Muthukrishnan., EE/AHP/NCTPS II (At Present)

Signature: -Sd/--(16.09.2019)

E-mail id : eeahpnctps2@tnebnet.org

Phone no. : 9445858539

***Note** :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Format for Ash Utilisation Action Plan

1. Name of the Unit: North Chennai Thermal Power station-II,Chennai-120
2. Power Generation Capacity:2x600 MW
3. Fly ash generation and utilisation for the year 2019-20 :
4. Fly Ash Utilisation Action Plan(quarter wise)*:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	352343				352343
B	Ash Utilisation	MT	347855				347855
i)	Brick Manufacturing	MT	58502				58502
ii)	Ready Mix Concrete	MT	Nil				Nil
iii)	Low Lying area filling/ Area Development	MT	68306				68306
iv)	Road Construction	MT	Nil				Nil
v)	Filling of abandoned stone quarry	MT	Nil				Nil
vi)	Mines void filling	MT	Nil				Nil
vii)	Agriculture Utilisation	MT	Nil				Nil
viii)	If any other area (Major Cement Companies & Traders Through E-Auction)	MT	221047				221047
	Total Ash Utilisation	MT	347855				347855
C	Ash Utilisation percentage Average)	%	98.72%				98.72%

pdfelement

Name of the Authorised Person: Er.K.Muthukrishnan., EE/AHP/NCTPS II (At Present)

Signature: -Sd/--(16.09.2019)

E-mail id : eeahpnctps2@tnebnet.org

Phone no. : 9445858539

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

S.N. 100

ANPARA 'A' & 'B'

Action Plan for 100% Utilisation of Fly Ash in Anpara TPS in Two Years

S.N.	Description	Unit	2019-20	2020-21	Total Fly Ash Utilisation in Two Years
A	Ash Generation (Fly Ash + Bed Ash)	MT	5208000	5208000	10416000
B	Ash Utilisation	MT			
1)	Efforts are being made to increase Fly Ash utilisation in manufacturing of fly ash based brick, interlocking blocks, Ready Mix Concrete and other items.	MT	32000	40000	72000
2)	Efforts are being made to sign MoU with NHAI for using fly ash in construction of Highways.	MT	50000	50000	100000
3)	Efforts are being made to get abandoned stone quarries allotted through District Administration for filling it with Pond Ash. District Administration has agreed for the same and directed to submit affidavit to UPPCB in connection to follow preventive measures. Affidavit has been submitted. Formal allotment of abandoned stone quarries is awaited.	MT	4638000	4510000	9148000
4)	Efforts are being made to increase Fly Ash utilisation in Cement industries	MT	480000	600000	1080000
	Total Ash Utilisation	MT	5208000	5208000	5375534
C	Ash Utilisation percentage	%	100	100	100

(Executive Engineer)

(Station Officer)

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S.N.101

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Format for Ash Utilization Action Plan

1. Name of the Unit: Obra Thermal Power Station, Obra-Sonebhadra, UPRVUNL
2. Power Generation Capacity: 5x200 MW
3. Fly Ash generation and utilization in previous two years (2017-18 and 2018-19)

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	1326123.4	224313.2	16.91
FY 2018-19	975246.5	90280.9	9.26

4. Fly Ash Utilization Action Plan for FY 2019-20

Sl. No.	Description	Unit	Q1 (Actual)	Q2 (Actual)	Q3*	Q4*	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly ash + Bottom ash)	MT	268085.1	316845	360000	380000	1324930.1
B	Ash Utilization	MT					0
i)	Brick Manufacturing	MT	200	300	450	450	1400
ii)	Ready Mix Concrete	MT					0
iii)	Low lying area filing/ area development	MT	0	0	100	500	600
iv)	Road Construction	MT	0	0	200	1000	1200
v)	Filling of abandoned stone quarry	MT	0	0	200	15000	15200
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture utilization	MT	0	0	0	0	0
viii)	Cement industries	MT	12282	22818	35000	45000	115100
ix)	Ash Dyke construction	MT	0	0	0	0	0
	Total Ash Utilization	MT	12482	23118	35950	61950	133500
C	Ash Utilization Percentage	%	4.66	7.30	9.99	16.30	10.08

*Projection for FY 2019-20 Q3 and Q4 as per Expected coal consumption.

Name of the Authorised person:- R.P.Singh

Signature: 10/12/19 10/12/19.

email ID:- cgm.obra@uprvunl.org

Phone no. 9415900071

*Note:
TPPs having ash utilization less than 85% will be given two years time period.

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Format for Ash Utilization Action Plan

1. Name of the Unit: Obra Thermal Power Station, Obra-Sonebhadra, UPRVUNL
2. Power Generation Capacity: 5x200 MW
3. Fly Ash generation and utilization in previous two years (2017-18 and 2018-19)

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	1326123.4	224313.2	16.91
FY 2018-19	975246.5	90280.9	9.26

4. Fly Ash Utilization Action Plan for FY 2020-21

Sl. No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
A	Ash Generation (Fly ash + Bottom ash)	MT	400000	400000	400000	400000	1600000
B	Ash Utilization	MT					
i)	Brick Manufacturing	MT	500	500	500	500	2000
ii)	Ready Mix Concrete	MT					
iii)	Low lying area filing/ area development	MT	1000	2000	4000	8000	15000
iv)	Road Construction	MT	4000	6000	10000	12000	32000
v)	Filling of abandoned stone quarry	MT	150000	250000	350000	450000	1200000
vi)	Mines void filling	MT					
vii)	Agriculture utilization	MT					
viii)	Cement industries	MT	60000	80000	100000	100000	340000
ix)	Ash Dyke construction	MT	1000	2000	4000	4000	11000
	Total Ash Utilization	MT	216500	340500	468500	574500	1600000
C	Ash Utilization Percentage	%	54.13	85.13	117.13	143.63	100.00

Projection for FY 2020-21 Q1, Q2, Q3 and Q4 as per Expected coal consumption.

Name of the Authorised person:- R.P.Singh

Signature: 09/12/19

email ID:- cgm.obra@uprvunl.org

Phone no. 9415900071

*Note:

TPPs having ash utilization less than 85% will be given two years time period.

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S.N.102

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Format for Ash Utilisation Action Plan

1. Name of the Unit **Essar Power MP Limited**
2. Power Generation Capacity: **2 X 600 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	632587	387002	61.2%
FY 2018-19	562851	486406	86.4%

4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.N.	Description	Unit	Q1	Q2#	Q3#	Q4#	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	231497	217346	321140	320491	1090474
B	Ash Utilisation						
i)	Brick Manufacturing	MT	1120	2000	3000	3000	**9120**
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT					
iv)	Road Construction	MT	1425	2000	5000	5000	**13425**
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement Industries	MT	156640	180000	180000	180000	**696640**
ix)	Ash dyke construction	MT	35000	10000	75000	75000	**195000**
	Total Ash Utilisation	**MT**	**194185**	**194000**	**263000**	**263000**	**914185**
C	Ash Utilisation percentage	%	83.88%	89.26%	81.90%	82.06%	83.83%

 # Projection for FY 19-20 Q2, Q3 Q4 as per expected coal consumption.

Name of the Authorised Person : J S Saran

Signature:

E-mail id : jay.saran@essarpower.co.in

Phone no. : 8959593568

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Format for Ash Utilisation Action Plan

1. Name of the Unit: **Essar Power MP Limited**
2. Power Generation Capacity: **2 X 600 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	632587	387002	61.2%
FY 2018-19	562851	486406	86.4%

4. Fly Ash Utilisation Action Plan for FY 20-21 (quarter wise)*:

S.N.	Description	Unit	Q1#	Q2#	Q3#	Q4#	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	260049	262907	262907	257191	**1043053**
B	Ash Utilisation						
i)	Brick Manufacturing	MT	3000	3000	3000	3000	**12000**
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT					
iv)	Road Construction	MT	6049	8907	8907	8191	**32053**
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement , Industries	MT	216000	216000	216000	216000	**864000**
ix)	Ash dyke construction	MT	35000	35000	35000	30000	**135000**
	Total Ash Utilisation	**MT**	**260049**	**262907**	**262907**	**257191**	**1043053**
C	Ash Utilisation percentage	%	100.0%	100.0%	100.0%	100.0%	100.0%

 # Projection for FY 20-21 Q1, Q2, Q3 Q4 as per expected coal consumption.

pdfelement

Name of the Authorised Person : J S Saran

Signature:.....

E-mail id : jay.saran@essarpower.co.in

Phone no. : 8959593568

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Format for Ash Utilisation Action Plan

1. Name of the Unit: **Essar Power MP Limited**
2. Power Generation Capacity: **2 X 600 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Financial Year	Ash Generation (MT)	Ash Utilization (MT)	Ash Utilization (%)
FY 2017-18	632587	387002	61.2%
FY 2018-19	562851	486406	86.4%

4. Fly Ash Utilisation Action Plan (quarter wise)*:

S.N.	Description	Unit	Q1	Q2#	Q3#	Q4#	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	231497	217346	321140	320491	1090474
B	Ash Utilisation						
i)	Brick Manufacturing	MT	1120	2000	3000	3000	9120
ii)	Ready Mix Concrete	MT					
iii)	Low Lying area filling/ Area Development	MT					
iv)	Road Construction	MT	1425	2000	5000	5000	13425
v)	Filling of abandoned stone quarry	MT					
vi)	Mines void filling	MT					
vii)	Agriculture Utilisation	MT					
viii)	Cement Industries	MT	156640	180000	180000	180000	696640
ix)	Ash dyke construction	MT	35000	10000	75000	75000	195000
	Total Ash Utilisation	MT	194185	194000	263000	263000	914185
C	Ash Utilisation percentage	%	83.88%	89.26%	81.90%	82.06%	83.83%

Projection for FY 19-20 Q2, Q3 Q4 as per expected coal consumption.

Name of the Authorised Person : J S Saran

Signature: [signature]

E-mail Id : jay.saran@essarpower.co.in

Phone no. : 8959593568

*Note :

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Remove Watermark Now

S.N.103

Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda, 2400 MW TPP**
2. Power Generation Capacity: **2400 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): **Annexure-1 & 2**
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	843939	764212	1084714	1071984	3764849
B	Ash Utilisation	MT	1085468	513615	1188679	989086	3776849
i)	Brick Manufacturing	MT	11418	6102	4662	4662	26843
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	579099	362819	473160	420693	1835771
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	197072	143631	420000	470000	1230703
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	0	0	0	0	0
viii)	If any other area (Dyke Raising)	MT	297879	1063	290857	93731	683531
ix	Total Ash Utilisation	MT	1085468	513615	1188679	989086	3776849
C	Ash Utilisation percentage	%	128.6%	67.2%	109.6%	92.3%	100.3%

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Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

E-mail id : asp.mishra@vedanta.co.in

Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda,2400 MW TPP**
2. Power Generation Capacity: **2400 MW**
3. Fly ash generation and utilisation in 2018-19
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	759352	766017	645453	917276	3088098
B	Ash Utilisation	MT	1146231.951	717014.57	856830.366	999692.6	3719769.487
i)	Brick Manufacturing	MT	1200.32	0	7863.4	4641.49	13705.21
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	462537.61	562578.46	615260.261	638317.92	2278694.251
iv)	Road Construction	MT	7202.241	0	0	2011.44	9213.681
v)	Filling of abandoned stone quarry	MT	33791.78	154436.109	134696.705	262291.75	585216.344
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	0	0	0	0	0
viii)	If any other area (Dyke Raising)	MT	641500	0	99010	92430	832940
ix	Total Ash Utilisation	MT	1146231.951	717014.569	856830.366	999692.6	3719769.486
C	Ash Utilisation percentage	%	150.95	93.60	132.75	108.98	120.46

pdfelement

Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

E-mail id : asp.mishra@vedanta.co.in
Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

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Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda, 2400 MW TPP**
2. Power Generation Capacity: **2400 MW**
3. Fly ash generation and utilisation in 2017-18
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2017-18
A	(Fly Ash + Bed Ash)	MT	839552.000	838936.000	758239.000	932730.000	3369457.000
B	Ash Utilisation	MT	655356.290	344299.330	899012.270	1763885.082	3662552.972
i)	Brick Manufacturing	MT	0.000	0.000	53789.870	29820.868	83610.738
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	81502.000	179743.000	364394.040	750225.206	1375864.246
iv)	Road Construction	MT	161959.290	87433.330	234872.360	80361.008	564625.988
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	0	0	0	0	0
viii)	If any other area (Dyke Raising)	MT	411895.000	77123.000	245956.000	903478.000	1638452.000
ix	Total Ash Utilisation	MT	655356.290	344299.330	899012.270	1763885.082	3662552.972
C	Ash Utilisation percentage	%	78.06	41.04	118.57	189.11	108.70

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Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

E-mail id : asp.mishra@vedanta.co.in
Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

S.N. 104

Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda, Captive Power Plant (1215 MW)**
2. Power Generation Capacity: **1215 MW**
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19): **Annexure-1 & 2**
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	664133	605836	853609	843591	2967169
B	Ash Utilisation	MT	977799	443301	886821	664248	2972169
i)	Brick Manufacturing	MT	10625	5678	4338	4338	24979
ii)	Ready Mix Concrete	MT	0	0	0	0	0
iii)	Low Lying area filling/ Area Development	MT	607650	411027	511340	463641	1993658
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	40869	25459	60000	96001	222329
viii)	If any other area (Dyke Raising)	MT	318655	1137	311143	100269	731203
ix	Total Ash Utilisation	MT	977799	443301	886821	664248	2972169
C	Ash Utilisation percentage	%	147.2%	73.2%	103.9%	78.7%	100.2%

Pdfelement

Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

E-mail id : asp.mishra@vedanta.co.in
Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda, Captive Power Plant (1215 MW)**
2. Power Generation Capacity: **1215 MW**
3. Fly ash generation and utilisation in 2018-19
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2018-19
A	Ash Generation (Fly Ash + Bed Ash)	MT	640101.000	590924.000	570882.000	661416.000	2463323.000
B	Ash Utilisation	MT	966629.559	396558.980	709164.093	698901.450	2771254.082
i)	Brick Manufacturing	MT	39936.250	13366.500	2342.670	20643.350	76288.770
ii)	Ready Mix Concrete	MT	0	0	0	0	0.000
iii)	Low Lying area filling/ Area Development	MT	352849.630	340814.800	581749.058	550514.690	1825928.178
iv)	Road Construction	MT	6408.459	5857.820	0.000	0.000	12266.279
v)	Filling of abandoned stone quarry	MT	0	0	3285.025	0	3285.025
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	58935.22	36519.86	34797.34	67783.41	198035.830
viii)	If any other area (Dyke Raising)	MT	508500	0	86990	59960	655450
ix	Total Ash Utilisation	MT	966629.559	396558.980	709164.093	698901.450	2771254.082
C	Ash Utilisation percentage	%	151.01	67.11	124.22	105.67	112.50

Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

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Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

pdfelement

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Format for Ash Utilisation Action Plan

1. Name of the Unit: **Vedanta Limited, Jharsuguda, Captive Power Plant (1215 MW)**
2. Power Generation Capacity: **1215 MW**
3. Fly ash generation and utilisation in 2017-18
4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2017-18
A	Ash Generation (Fly Ash + Bed Ash)	MT	575943.000	624146.000	652084.000	759053.000	2611226.000
B	Ash Utilisation	MT	479587.020	263481.030	665140.320	1573544.057	2981752.427
i)	Brick Manufacturing	MT	35557.600	22730.330	26117.030	44634.880	129039.840
ii)	Ready Mix Concrete	MT	0	0	0	0	0.000
iii)	Low Lying area filling/ Area Development	MT	51356.000	127981.000	177252.790	681792.240	1038382.030
iv)	Road Construction	MT	102445.830	37052.380	233112.830	64408.377	437019.417
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	Cement	MT	32938.590	22654.320	52013.670	47665.560	155272.140
viii)	If any other area (Dyke Raising)	MT	257289.000	53063.000	176644.000	735043.000	1222039.000
ix	Total Ash Utilisation	MT	479587.020	263481.030	665140.320	1573544.057	2981752.427
C	Ash Utilisation percentage	%	83.27	42.21	102.00	207.30	114.19

Name of the Authorised Person: **Dr. A.S.P. Mishra**

Signature :

E-mail id : asp.mishra@vedanta.co.in
Phone no. : 9937285045

***Note :**

TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.

pdfelement

S.N. 105

105

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Format for Ash Utilisation Action Plan

1. Name of the Unit: Bharat Aluminium Company Limited
2. Power Generation Capacity: Present Power Generation Capacity 1740 MW. Another power plant 270 MW presently under suspension of operations from Dec 2015
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

S.No	Year	Ash Generation	Ash Utilization	% Utilization
1	2017-18	31,50,906	18,77,999	60%
2	2018-19	27,98,031	28,65,417	102%

4. Fly Ash Utilisation Action Plan (quarter wise) *:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	8,30,000	8,30,000	8,30,000	8,30,000	33,20,000
B	Ash Utilisation	MT	8,30,000	8,30,000	8,30,000	8,30,000	33,20,000
i)	Brick Manufacturing	MT	83,000	83,000	83,000	83,000	3,32,000
ii)	Ready Mix Concrete	MT	NIL	NIL	NIL	NIL	NIL
iii)	Low Lying area filling/ Area Development	MT	2,28,250	2,28,250	2,28,250	2,28,250	9,13,000
iv)	Road Construction	MT	20,750	20,750	20,750	20,750	83,000
v)	Filling of abandoned stone quarry	MT	20,750	20,750	20,750	20,750	83,000
vi)	Mines void filling	MT	1,24,500	1,24,500	1,24,500	1,24,500	4,98,000
vii)	Agriculture Utilisation	MT	NIL	NIL	NIL	NIL	NIL
viii)	cement	MT	41,500	41,500	41,500	41,500	1,66,000
viii)	If any other area (Dyke strengthening and raising))	MT	3,11,250	3,11,250	3,11,250	3,11,250	12,46,600
ix	Total Ash Utilisation	MT	8,30,000	8,30,000	8,30,000	8,30,000	33,20,000
C	Ash Utilisation percentage	%	100%	100%	100%	100%	100%

Name of the Authorised Person: Mr G Venkat Reddy

Signature:

E-mail Id : Venkat.reddy@vedanta.co.in/krishna.kulkarni@vedanta.co.in

Phone no. : 9111002626 / 9765392259

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S.N. 106

Annexure-I

National Aluminium Company Ltd

Captive Power Plant

Ash Utilisation Plan For 2019-20

Sl No	Description	Unit	*April-June 2019 (Q1)*	*July-Sept 2019 (Q2)*	*Oct- Dec. 2019 (Q3)*	*Jan-March 2020 (Q4)*	*Total FY 2019-20*
A	**Ash Generation**	MT	**655590**	**656000**	**659690**	**656410**	**2627690**
B	**Ash Utilization areas**						
i	Dyke Raising	MT	0	0	0	0	0
ii	Outside Brick Manufacturers	MT	115000	120000	130000	140000	505000
iii	Nalco Own Ash Brick/Block	MT	600	600	600	600	2400
iv	Asbestos Industry/ Ready Mix	MT	10000	11000	14000	15000	50000
v	Low lying area Filling/Area development	MT	30000	34800	0	0	64800
vi	Road construction/ NH construction	MT	200000	200000	200000	200000	800000
vii	Abandoned Stone quarry filling	MT	0	0	0	0	0
viii	Agriculture utilisation	MT	50	50	50	50	200
ix	Minies void filling		0	0	250000	300000	550000
C	**Ash Utilised**	MT	**355650**	**366450**	**594650**	**655650**	**1972400**
D	**Ash Utilised Percentage %**	%	54.25	55.86	90.14	99.88	**75.06**

24.04.19

General Manger
Captive Power Plant
National Aluminium Company Ltd
Angul, Odisah 759145

pdfelement

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National Aluminium Company Ltd

Captive Power Plant

Annexure-II

Ash Utilisation Plan For 2020-21

Sl No	Description	Unit	*April-June 2020 (Q1)*	*July-Sept 2020 (Q2)*	*Oct- Dec. 2020 (Q3)*	*Jan-March 2021 (Q4)*	*Total FY 2020-21*
A	**Ash Generation**	**MT**	**655590**	**656000**	**659690**	**656410**	**2627690**
B	**Ash Utilization areas**						
i	Dyke Raising	**MT**	0	0	0	0	0
ii	Outside Brick Manufacturers	**MT**	140000	140000	150000	150000	580000
iii	Nalco Own Ash Brick/Block	**MT**	600	600	600	600	2400
iv	Asbestos Industry/ Ready Mix	**MT**	10000	12000	15000	15000	52000
v	Low lying area Filling/Area development	**MT**	10000	15000	15000	20000	60000
vi	Road construction/ NH construction	**MT**	250000	250000	200000	150000	850000
vii	Abandoned Stone quarry filling	**MT**	20000	40000	40000	0	100000
viii	Agriculture utilisation	**MT**	50	50	50	50	200
ix	Minies void filling		220000	200000	240000	330000	990000
C	**Ash Utilised**	**MT**	**650650**	**657650**	**660650**	**665650**	**2634600**
D	**Ash Utilised Percentage %**	**%**	99.25	100.25	100.15	101.41	**100.26**

Independent

General Manger 24.04.19
Captive Power Plant
National Aluminium Company Ltd
Angul, Odisah **759145**

S.N. 107

Action plan for 100% ash utilization i.r.o Chandrapura Thermal Power Station(CTPS), DVC

N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
	Ash Generation (Fly Ash + Bed Ash)	MT	304600	235120	250000	310000	1099720
	Ash Utilisation	MT					
	Brick Manufacturing	MT	300	320	500	500	1620
	Ready Mix Concrete /Cement	MT	45300	48610	90000	100000	283910
	Low Lying area filling/ Area Development	MT	50000	40000	30000	10000	130000
	Road Construction	MT	120000	130000	120000	125000	495000
	Filling of abandoned stone quarry	MT	0	0	0	0	0
	Mines void filling	MT	0	0	0	185000	185000
	Agriculture Utilisation	MT	0	0	0	0	0
	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	215600	218930	240500	420500	1095530
	Ash Utilisation percentage	%	71	93	96	136	100

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Chief Engineer, EM & PC
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Damodar Valley Corporation

19

S.N. 108

Action plan for 100% ash utilization i.r.o Durgapur Thermal Power Station(DTPS), DVC

	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
	Ash Generation (Fly Ash + Bed Ash)	MT	65000	65000	65000	66000	261000
	Ash Utilisation	MT					
	Brick Manufacturing	MT	0	0	0	0	0
	Ready Mix Concrete /Cement	MT	1660	2500	3500	3500	11160
	Low Lying area filling/ Area Development	MT	0	0	0	0	0
	Road Construction	MT	0	0	0	0	0
	Filling of abandoned stone quarry	MT	65000	50000	65000	69000	249000
	Mines void filling	MT	0	0	0	0	0
	Agriculture Utilisation	MT	0	0	0	0	0
	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	66660	52500	68500	72500	260160
	Ash Utilisation percentage	%	103	81	105	110	100

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S.N. 109

Action plan for 100% ash utilization i.r.o Mejia Thermal Power Station(MTPS)

Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
Ash Generation (Fly Ash + Bed Ash)	MT	1158900	972870	850000	1000000	3981770
Ash Utilisation	MT					
Brick Manufacturing	MT	29036	27430	65000	75000	196466
Ready Mix Concrete /Cement	MT	384740	307550	540000	750000	1982290
Low Lying area filling/ Area Development	MT	0	0	0	0	0
Road Construction	MT	0		0	0	0
Filling of abandoned stone quarry	MT	0	0	0	0	0
Mines void filling	MT	279430	39850	440000	1050000	1809280
Agriculture Utilisation	MT	0	0	0	0	0
In any other area (Specify)	MT	0	0	0	0	0
Total Ash Utilisation	MT	693206	374830	1045000	1875000	3988036
Ash Utilisation percentage	%	60	39	123	188	100

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DVC Towers, Kolkata-700 054

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S. N. 110

Action plan for 100% ash utilization I.r.o Raghunathpur Thermal Power Station(RTPS), DVC

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	315800	394800	320000	320000	1350600
B	Ash Utilisation	MT					
i)	Brick Manufacturing	MT	500	880	1500	1500	4380
ii)	Ready Mix Concrete /Cement	MT	33210	33570	105000	125000	296780
iii)	Low Lying area filling/ Area Development	MT	0	0	0	0	0
iv)	Road Construction	MT	0	0	0	0	0
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	33710	34450	106500	126500	301160
C	Ash Utilisation percentage	%	11	9	33	40	22

: Ananta Chakraborty, Mail Id: ananta.chakraborty@dvc.gov.in,Mobile: 9430386124

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05/12/19

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Action plan for 100% ash utilization i.r.o Raghunathpur Thermal Power Station(RTPS), DVC

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
	Ash Generation (Fly Ash + Bed Ash)	MT	330000	320000	330000	330000	1310000
	Ash Utilisation	MT	0	0	0	0	0
	Brick Manufacturing	MT	5000	5000	5000	5000	20000
	Ready Mix Concrete /Cement	MT	150000	150000	150000	150000	600000
	Low Lying area filling/ Area Development	MT	0	0	300000	385000	685000
	Road Construction	MT	0	0	0	0	0
	Filling of abandoned stone quarry	MT	0	0	0	0	0
	Mines void filling	MT	0	0	0	0	0
	Agriculture Utilisation	MT	0	0	0	0	0
	In any other area (Specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	155000	155000	455000	540000	1305000
	Ash Utilisation percentage	%	47	48	138	164	100

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S.N.111

Format for Ash Utilisation Action Plan

1. Name of the Unit: Lanco Anpara Power Limited
2. Power Generation Capacity: 2X600 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Ash Generation	Ash Utilization	% Ash Utilization
FY 2017-18	1590561	110375	6.94
FY 2018-19	1531072	337240	22.03

4. Fly Ash Utilisation Action Plan (quarter wise) * 2019-20

FY-2019-20							
S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash
A	Ash Generation (Fly Ash + Bed Ash)	MT	486858	441136	317408	329457	1574859
B	Ash Utilisation	MT	121350	82430	317408	329457	850645
i)	Brick Manufacturing	MT	0	0	15870	16473	32343
ii)	Ready Mix Concrete (Cement Plants)	MT	121350	82430	238056	247093	688929
iii)	Low Lying area filling/ Area Development	MT	0	0	15870	16473	32343
iv)	Road Construction	MT	0	0	47611	49419	97030
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	121350	82430	317408	329457	850645
C	Ash Utilisation percentage	%	25	19	100	100	54

pdfelement

Name of the Authorised Person: **Sandip Goswami**

Signature:

E-mail id : **anpara.site@lancogroup.com**

Phone no : **05446-272022**

***Note :** **TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.**

***The proposed fly ash utilizaion given is subject to the avialability of potential users.**

Remove Watermark Now

Format for Ash Utilisation Action Plan

1. Name of the Unit: Lanco Anpara Power Limited
2. Power Generation Capacity: 2X600 MW
3. Fly ash generation and utilisation in previous two years (2017-18 and 2018-19):

Year	Ash Generation	Ash Utilization	% Ash Utilization
FY 2017-18	1590561	110375	6.94
FY 2018-19	1531072	337240	22.03

4. Fly Ash Utilisation Action Plan (quarter wise)* 2020-21:

FY-2020-21							
S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20*
A	Ash Generation (Fly Ash + Bed Ash)	MT	400055	400055	329457	400055	1529622
B	Ash Utilisation	MT	400055	400055	329457	400055	1529622
i)	Brick Manufacturing	MT	20003	20003	16473	20003	76481
ii)	Ready Mix Concrete (Cement Plants)	MT	300041	300041	247093	300041	1147217
iii)	Low Lying area filling/ Area Development	MT	20003	20003	16473	20003	76481
iv)	Road Construction	MT	60008	60008	49419	60008	229443
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilisation	MT	0	0	0	0	0
viii)	If any other area (specify)	MT	0	0	0	0	0
	Total Ash Utilisation	MT	400055	400055	329457	400055	1529622
C	Ash Utilisation percentage	%	100	100	100	100	100

pdfelement

Name of the Authorised Person: **Sandip Goswami**

Signature:.....

E-mail id : **anpara.site@lancogroup.com**
Phone no : **05446-272022**

***Note : TPPs having fly ash utilisation less than 85 % will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100 % fly ash utilisation.**

***The proposed fly ash utilizaion given is subject to the avialability of potential users.**

The proposed Fly ash generation is based on 85 % PLF and 30% Ash in coal.

S.N. 112

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Format for Ash Utilization Action Plan

1. Name of the Unit : **Adhunik Power & Natural Resources Ltd**
2. Power Generation Capacity : **2 x 270 MWH**
3. Fly ash generation and utilization in previous two years(2017-18 and 2018-19): **Attached**
4. Fly ash Utilization Action Plan(Quarter wise* 2019-20: **As below**

S.N	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash utilization in FY 2019-20
A	**Ash Generation (Fly Ash + Bed Ash)**	MT	332712	332712	332712	332712	1330846
B	**Ash Utilization**	MT	332712	332712	332712	332712	1330846
i)	**Brick Manufacturing**	MT	70701	70701	70701	70701	282805
ii)	**Ready Mix concrete/Cement Manufacturing**	MT	212104	212104	212104	212104	848414
iii)	**Low Lying area filling/Area Development**	MT	49907	49907	0	0	99814
iv)	**Road construction**	MT	0	0	49907	49907	99814
v)	**Filling of abandoned stone quarry**	MT	0	0	0	0	0
vi)	**Mines void filling**	MT	0	0	0	0	0
vii)	**Agriculture Utilization**	MT	0	0	0	0	0
viii)	**If any other area(specify),/Pond embankment**	MT	0	0	0	0	0
	Total Ash Utilization	MT	332712	332712	332712	332712	1330846
C	**Ash Utilisation percentage**	%	100	100	100	100	100

pdfelement

Name of the Authorized Person: **Kamlesh Kumar**

Signature :

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Phone No : 07763818994

Note:

TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

Remove Watermark Now

Format for Ash Utilization Action Plan

1. Name of the Unit : **Adhunik Power & Natural Resources Ltd**
2. Power Generation Capacity : **2 x 270 MWH**
3. Fly ash generation and utilization in previous two years(2017-18 and 2018-19): **Attached**
4. Fly ash Utilization Action Plan(Quarter wise* 2020-21: **As below**

S.N	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash utilization in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	332712	332712	332712	332712	1330846
B	Ash Utilization	MT	332712	332712	332712	332712	1330846
i)	Brick Manufacturing	MT	70701	70701	70701	70701	282805
ii)	Ready Mix concrete/Cement Manufacturing	MT	212104	212104	212104	212104	848414
iii)	Low Lying area filling/Area Development	MT	0	0	0	0	0
iv)	Road construction	MT	49907	49907	49907	49907	199627
v)	Filling of abandoned stone quarry	MT	0	0	0	0	0
vi)	Mines void filling	MT	0	0	0	0	0
vii)	Agriculture Utilization	MT	0	0	0	0	0
viii)	If any other area(specify),/Pond embankment	MT	0	0	0	0	0
	Total Ash Utilization	MT	332712	332712	332712	332712	1330846
C	Ash Utilisation percentage	%	100	100	100	100	100

pafelement

Name of the Authorized Person: **Kamlesh Kumar**

Signature :

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Phone No : 07763818994

Note:

TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

S.N. 113

Format for Ash Utilisation Action Plan

Remove Watermark Now

1. Name of the Unit : DB Power limited
2. Power Generation Capacity : 2x600 MW
3. Fly ash generation and utilization in previous two years :

S. No	Financial year	Fly ash generation in MT	Fly ash utilization in MT	%age of Utilisation
1	2017-18	2133935	1528531	71.6
2	2018-19	1984787	1438790	72.5

4. Fly ash utilization plan for 2019-20 & 2020-21 :

Ash utilization Plan for FY 2019-20 & 2020-21						
	FY 2019-20	Plan for FY 2020-21				
		Q-1	Q-2	Q-3	Q-4	Annual
Station PLF (%)	62	85	60	70	75	73
SCC	0.73	0.72	0.80	0.72	0.72	0.74
Coal consumption	4783132	1586204	1244160	1306968	1399680	5536512
Ash Content (%)	44	42	46	42	42	43
Total Ash Generation	2124965	666248	572314	548675	587866	2380700
Total Fly ash	1742471	532998	457851	438940	470292	1904560
Cement Industries*						
Emami Cement	484995	145000	45000	180000	195000	565000
Ambuja Cement	390022	135000	45000	135000	135000	450000
Ultratech Cement	11858	0	0	0	0	0
Nuvoco Cement	589	0	0	0	0	0
Shree Cement	59437	36000	0	36000	36000	108000
Along Railway siding	95836	8000	90000	15000	0	113000
Brick Plants	18582	9000	0	9000	9000	27000
Abandoned Mines						
Gudeli mines	266644	90000	45000	90000	90000	315000
Nagjhar mines	436	0	0	0	0	0
Siriyagarh or other mines	130138	90000	0	90000	90000	270000
Shivalaya /Vedant Logistics for NHAI	12369	4500	0	4500	4500	13500
Total Fly ash utilization	1470906	517500	225000	559500	559500	1861500
Total bottom ash Generation	382494	133250	114463	109735	117573	476140
Reclamation of low lying area	105960	45000	45000	45000	45000	180000
Ash Dyke Raising	46000	0	0	25000	0	25000
Reclamation of land in factory campus of Vandana at Sakti	45000	0	0	0	0	0
Gudeli & Siriyagarh	120000	90000	0	90000	90000	270000
Along Railway siding	0	15000	0	15000	15000	45000
Total pond ash utilization	316960	150000	45000	175000	150000	520000
Total Ash utilization	1787866	667500	270000	734500	709500	2381500
Ash utilization (%)	84	100	47	134	121	100

Cement manufacturers' off take varies depending on the market conditions

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SN. 114

ACHIVED

Quaterly Action Plan of Ash Utilization for the Fy 2019-20 Plant :- KTPS, Korba East.

S. No.	Proposed Ash Utilization in Various Heads	2019-20 LMT	FY 2019-20			
			Q1	Q2	Q3	Q4
			LMT	LMT	LMT	LMT
1	Supplied to Cement Plant	0.010	0.000	0.000	0.000	0.000
2	Supply to Brick Manufacturing	0.010	0.002	0.00099	0.022	0.0495
3	Supply to Land Filling	2.650	2.078	0.061	0.150	0.100
4	Supply to Agricluture	0.000	0.000	0.000	0.000	0.000
5	Supply to Mine Filling	2.310	0.261	0.130	0.860	0.860
6	Other (Road/Forest/Nagar Nigam) etc.	0.740	0.000	0.000	0.000	0.000
7	Total Ash Utilization in LMT	5.720	2.341	0.19199	1.03200	1.00950
8	Estimated Ash Generation in LMT	7.100	1.324	1.127	1.054	1.168
9	**% age Ash Utilization**	**80.56%**	**176.81%**	**17.04%**	**97.91%**	**86.43%**

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REVISED ACTION PLAN FOR ASH UTILIZATION FOR THE YEAR 2020-21

PLANT :- KTPS, Korba East 2 K | 20 MW

S. No.	Proposed Ash Utilization In Various Heads	2020-2021	Year 2020-21			
			1st QTR	2nd QTR	3rd QTR	4thQTR
1	Supplied to Cement Plant	0.00	0.00	0.00	0.00	0.00
2	Supply to Brick Manufacturing	0.20	0.05	0.05	0.05	0.05
3	Supply to Land Filling	2.60	0.45	0.60	0.70	0.85
4	Supply to Agriculture	0.00	0.000	0.000	0.000	0.000
5	Supply to Mine Filling	2.50	0.75	0.50	0.50	0.75
7	Other (Road/ Forest/ Nagar Nigam etc.)	0.35	0.10	0.05	0.10	0.10
	Total Ash Utilization IN MT	**5.65**	**1.350**	**1.200**	**1.350**	**1.750**
	Estimated Ash Generation IN MT	**5.20**	**1.300**	**1.300**	**1.300**	**1.300**
	% age Ash Utilization	**108.65%**	**103.85%**	**92.31%**	**103.85%**	**134.62%**

Note :- All quantity in LMT

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E.E. (Civil) M-I
CSPGCL Korba East.

S.N 115

FORMAT FOR FLY ASH UTILISATION ACTION PLAN

1. Name of the Units : Kota Super Thermal Power Station
2. Power Generation Capacity : 1240 MW (2X110 MW, 3X210 MW, 2X195 MW)
3. Fly Ash Generation and Utilisation in previous years (2020-21)

	2017-18	2018-19	2019-20	2020-21
Ash Generation	1505289.76	1843815.88	1812261.12	1741122.85
Ash Utilisation	1633974.76	1836094.03	1660836.17	2060372.02

S. No.	Description	Unit	2020-21 Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2020-21
A	Ash Generation (Fly Ash + Bottom Ash)	MT	435280.71	435280.71	435280.71	435280.71	1741122.85
B	Ash Utilisation						
i	Cement Industry	MT	333916.75	333916.75	333916.75	333916.75	1335667.00
ii	Bricks Manufacturing	MT	51009.17	51009.17	51009.17	51009.17	204036.68
iii	Ready Mix Concrete	MT	0.00	0.00	0.00	0.00	0.00
iv	Low Lying Area Filling / Area Development	MT	93917.08	138917.08	138917.08	168917.08	520668.33
v	Roads Construction	MT	0.00	0.00	0.00	0.00	0.00
vi	Filling abandoned stone quarry	MT	0.00	0.00	0.00	0.00	0.00
vii	Mines void filling	MT	0.00	0.00	0.00	0.00	0.00
viii	Agriculture Utilisation	MT	0.00	0.00	0.00	0.00	0.00
ix	If any other area (Cement & A.C. Sheet Manufacturing Industries)	MT	0.00	0.00	0.00	0.00	0.00
x	Total Ash Utilisation	MT	478843.00	523843.00	523843.00	553843.00	2060372.02
C	Ash Utilisation Percentage	%	110.01	115.75	120.35	127.24	118.34

Authorised Person : Executive Engineer (Fly Ash), KSTPS, Kota

Signature: ....

Email ID: seccae4kstps@gmail.com, flyashkstps@gmail.com

Contact No. 09413348012

Note: TPPs having fly ash utilisation less than 85% will be given two years time period and TPPs having utilisation more than 85% will be given one year time period to achieve 100% fly ash utilisation.

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FORMAT FOR FLY ASH UTILISATION ACTION PLAN

1 Name of the Units : Kota Super Thermal Power Station, Kota

2 Power Generation Capacity : 1240 MW (2X110 MW, 3X210 MW, 2X195 MW)

3 Fly Ash Generation and Utilisation in previous years (2019-20)

	2017-18	2018-19	2019-20	2020-21
Ash Generation	1568289.76	1842815.68	1812263.12	1741122.85
Ash Utilisation	1635974.76	1836994.03	1661036.17	2060372.02

			2019-20				
S. No.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilisation in FY 2019-20
A	Ash Generation (Fly Ash + Bottom Ash)	MT	307052.36	454354.86	246768.19	604087.71	1812263.12
B	Ash Utilisation						
i)	Cement Industry	MT	321105.18	279412.40	159685.28	380101.40	1140304.26
ii)	Bricks Manufacturing	MT	70727.50	33839.57	28820.88	66693.96	200081.91
iii)	Ready Mix Concrete	MT	0.00	0.00	0.00	0.00	0.00
iv)	Low Lying Area Filling / Area Development	MT	105500.00	18000.00	17150.00	180000.00	320650.00
v)	Road Construction	MT	0.00	0.00	0.00	0.00	0.00
vi)	Filling abandoned stone quarry	MT	0.00	0.00	0.00	0.00	0.00
vii)	Mines void filling	MT	0.00	0.00	0.00	0.00	0.00
viii)	Agriculture Utilisation	MT	0.00	0.00	0.00	0.00	0.00
ix)	If any other area (Cement & A.C. Sheet Manufacturing Industries)	MT	0.00	0.00	0.00	0.00	0.00
x)	Total Ash Utilisation	MT	497332.68	331251.97	205656.16	626795.36	1661036.17
C	Ash Utilisation Percentage	%	98.08	72.91	83.34	103.76	89.32

Authorised Person : Executive Engineer (Fly Ash), KSTPS, Kota

Signature: .....

Email ID: seeam4ktps@gmail.com, flyashktps@gmail.com

Contact No. 09413349012

Note: TPPs having fly ash utilization less than 85% will be given two years time period and TPPs having utilization more than 85% will be given one year time period to achieve 100% fly ash utilization.

S.N. 116

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Fly Ash utilization action plan

1. Name of the unit: Nabha Power Ltd, Rajpura

2. Power Generation Capacity: 2x700 MW

3. Fly Ash generation & Utilization in previous two years (2017-18 and 2018-19):

Sr No	Financial Year	Total Ash generation (Lakh MT)	Total Ash utilization (Lakh MT)
1	2017-18	14.78	16.45
2	2018-19	14.39	13.05

4. Fly ash utilization action plan for 2019-20:

S. No.	Unit	Unit	Q-1 (Actual)	Q-2 (Actual)	Q-3 (Estimated*)	Q-4 (Estimated*)	Total for 2019-20
A	Ash Generation (Fly Ash+ Bottom Ash)	MT	3,60,627	3,76,429	3,48,498	2,96,619**	13,82,174
B	Ash Utilization	MT	3,10,667	3,47,287	3,96,627	3,27,593	13,82,174
i.	Brick Manufacturing	MT	20,596	18,166	17,896	15,130	71,788
ii.	Cement Manufacturing	MT	2,40,676	2,72,722	2,41,373	1,96,659	9,51,430
iii.	Ready Mix Concrete	MT	26,857	18,337	36,536	32,776	1,14,506
iv.	Landfill/Reclamation of low lying area	MT	14,012	30,211	93,170	75,464	2,12,857
v.	Road Construction	MT	-	-	-	-	0
vi.	Filling of abandoned stone quarry	MT	-	-	-	-	0
vii.	Mines void filling	MT	-	-	-	-	0
viii.	Agriculture utilization	MT	-	-	-	-	0
ix.	If any other area (Asbestos product manufacturing)	MT	8,526	7,851	7,652	7,564	31,593
x.	Total Ash utilization	MT	3,10,667	3,47,287	3,96,627	3,27,593	13,82,174
C	Ash Utilization percentage	%	86%	92%	114%	110%	100%

*Depends on Plant Load Factor and coal quality. May vary if they vary from estimation.

** Estimated ash generation for Q-4 is lower due to planned shutdown for annual overhauling of one unit.

For FY 2020-21, Nabha Power Ltd has below given action plan to achieve 100% ash utilization:

- Nabha Power Ltd has long term tie-ups for sale of ash with cement manufacturing companies, fly ash bricks manufacturing plants.
- Tie up with asbestos product manufacturing companies, RMC plants etc.
- Tie up with contractors to use pond ash for landfilling in construction activities.

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Format for Ash Utilization Action Plan

S.N. 117

1 Name of the Unit : **TPS Parli**

2 Power Generation Capacity : **1170 MW**

3 Fly ash generation and Utilization in previous two years (2017-18 and 2018-19): -

	Fly Ash Generated (MT)	Fly Ash Utilization (MT)	% Utilization
Fly ash Utilization (2017-18)	6,39,310	4,12,496	64.52
Fly ash Utilization (2018-19)	4,90,480	4,10,668	83.73

4 Fly Ash Utilization Action Plan (quarter wise) * 2019-20

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2019-20
A	Ash Generation (Fly Ash + Bed Ash)	MT	49,463	1,62,000	3,24,000	3,24,000	8,59,463
B	Fly Ash Utilization	MT	37,972	1,13,400	2,26,800	2,26,800	6,04,972
i)	Brick Manufacturing	MT	5,502	79,720	1,60,560	1,60,560	4,06,342
ii)	Ready Mix Conrete	MT	2,357	17,010	34,020	34,020	87,407
iii)	Low Lying area filling/Area Development	MT	-	-	-	-	0
iv)	Road Construction	MT	-	-	-	-	0
v)	Filling of abandoned stone quarry	MT	-	-	-	-	0
vi)	Mines void filling	MT	-	-	-	-	0
vii)	Agriculture Utilization	MT	2,288	3,170	5,220	5,220	15,898
viii)	Cement plant	MT	37,441	56,700	1,13,400	1,13,400	3,20,941
ix)	If any other area (specify) asbestos	MT	1,875	5,400	10,800	10,800	28,875
	Total Ash Utilization	MT	49,463	1,62,000	3,24,000	3,24,000	8,59,463
C	Ash Utilization Percentage	%	100	100	100	100	100

Name of the Authorised Person:- D.G.Ingle, Suptdg. Engineer.

Signature:-

E-mail id:-eeashutlparli@mahagenco.in

Phone No:-8411971505

***Note:**

Unit - 4 & 5 is under RSD (Reserve Shut Down) since July 2015

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Format for Ash Utilization Action Plan

1 Name of the Unit : **TPS Parli**

2 Power Generation Capacity : **1170 MW**

3 Fly ash generation and Utilization in previous two years (2017-18 and 2018-19): -

	Generated (MT)	(MT)	Utilization
Fly ash Utilization (2017-18)	6,39,310	4,12,496	64.52
Fly ash Utilization (2018-19)	4,90,480	4,10,668	83.73

4 Fly Ash Utilization Action Plan (quarter wise) 2020-21:

S.N.	Description	Unit	Q1	Q2	Q3	Q4	Total Fly Ash Utilization in FY 2020-21
A	Ash Generation (Fly Ash + Bed Ash)	MT	3,24,000	3,24,000	3,24,000	3,24,000	12,96,000
B	Fly Ash Utilization	MT	2,26,800	2,26,800	2,26,800	2,26,800	9,07,200
i)	Brick Manufacturing	MT	1,60,560	1,60,560	1,60,560	1,60,560	6,42,240
ii)	Ready Mix Conrete	MT	34,020	34,020	34,020	34,020	1,36,080
iii)	Low Lying area filling/Area Development	MT	-	-	-	-	0
iv)	Road Construction	MT	-	-	-	-	0
v)	Filling of abandoned stone quarry	MT	-	-	-	-	0
vi)	Mines void filling	MT	-	-	-	-	0
vii)	Agriculture Utilization	MT	5,220	5,220	5,220	5,220	20,880
viii)	Cement plant	MT	1,13,400	1,13,400	1,13,400	1,13,400	4,53,600
ix)	If any other area (specify) asbestos	MT	10,800	10,800	10,800	10,800	43,200
	Total Ash Utilization	MT	3,24,000	3,24,000	3,24,000	3,24,000	12,96,000
C	Ash Utilization Percentage	%	100	100	100	100	100

Name of the Authorised Person:- D.G. Ingle, Suptdg. Engineer.

Signature:-

E-mail Id:-eeashutlparli@mahagenco.in

Phone No:-8411971505

***Note:**

Unit - 4 & 5 is under RSD (Reserve Shut Down) since July 2015

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SKS Power Generation (C.G.) Limited

Vill. Binjkot/Darramuda, Tah. - Kharsia, Raigarh (CG) 496661

Email : raigarh@spgcl.com

CIN : U40103MH2008PLC180231

S.N.118

Action plan for fly ash generation and disposal for the year 2019-2020 & 2020-2021

S. No	Item	Reply
1	Name of Thermal Power Station	SKS Power Generation (C.G.) Ltd.
2	Full address including Pin code	SKS Power Generation (C.G.) Ltd. Village-Binjkot,Darramuda, Tahsil - Kharsia, Distt-Raigarh, Chhattisgarh 496661
3	E-mail address	drsunilkushwaha@spgcl.com
4	Name of the Nodal Officer (not below the rank of DGM / Dy. CE / or equivalent) dealing with ash/environment management and designation	VC Vishwakarma (Vic-President), O&M
5	Contact No.	07471143937
6	Fax No. **Email:**	vcvishwakarma@spgcl.com;
7	Capacity of the Thermal Power Station (MW)	4 X 300 MW
8	Number of Units and capacity of each unit	2 x 300 MW
9	**Unit Commissioned Month**	**Unit-1 April 2018, Unit-2 October 2017**

A - Fly ash generation and utilization in the year 2017-2018 and 2018- 2019

S. No	Year	Ash generation	Ash Utilization	% Utilization
1	2017-2018	**231443**	**74897**	**32%**
2	2018-2019	**558223.01**	**396119.41**	**70.96 %**

B - Fly ash generation and utilization plan for the year 2019 - 2020

S No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly ash Utilization FY 2019 - 20
A	**Generation**	**MT**	**304053**	**303706**	**181076**	**143735**	**932570**
B	**Utilization**	**MT**	**304053**	**303706**	**181076**	**143735**	**932570**
1	Cement industry	**MT**	135147	134957	99592	79054	**448750**
2	Land fill	**MT**	49871	34950	9054	7187	**101062**
3	Own Brick Unit	**MT**	5000	9000	7243	5749	**26992**
4	Outside brick Units other than brick kilns	**MT**	15000	15000	14486	11499	**55985**
5	Own ash based products (other than bricks)	**MT**	1000	1000	0	0	0
6	Road and Flyover Embankments	**MT**	20000	20000	0	0	40000
7	Back filling of mines	**MT**	74656	84599	61566	48870	269691
8	Agriculture	**MT**	1000	1000	0	0	0
9	Others (please specify)	**MT**	4000	5000	0	0	0
	Total C (1 to 11)	**100%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

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C - Fly ash generation and utilization plan for the year 2020 - 2021

S No	Description	Unit	Q1	Q2	Q3	Q4	Total Fly ash Utilization FY 2020 - 2021
A	**Generation**	MT	**293048**	**296360**	**271525**	**264902**	**1125835**
B	**Utilization**	MT	**293048**	**296360**	**271525**	**264902**	**1125835**
1	Cement industry	MT	161176	162998	149339	145696	**619209**
2	Land fill at low laying area in exceptional case	MT	14652	14818	13576	13245	**56292**
3	Own Brick Unit	MT	8791	8891	8146	7947	33775
4	Outside brick Units other than brick kilns	MT	23444	23709	21722	21192	90067
5	Own ash based products (other than bricks)	MT	0	0	0	0	0
6	Road and Flyover Embankments	MT	0	0	0	0	0
7	Back filling of mines	MT	99636	100762	92319	90067	382784
8	Agriculture	MT	0	0	0	0	0
9	Others (please specify)	MT	0	0	0	0	0
	Total C (1 to 11)	**100%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100%**

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Remarks: Fly ash utilization is depends up on the fly ash generation followed by power generation and conditions. We ensure the 100% utilization of generated fly ash onwards third year from commissioning of plant.

With Regards,
For **M/s. SKS Power Generation (Chhattisgarh) Limited**

Dr. Sunil Kushwaha
(Head – EHS)

Regt. Office :- 501B, Elegant Business Park, Andheri Kurla Road, J.B.Nagar, Andheri (E), Mumbai. 400 059
Tel +91-22-3080 7000, Fax +91-22-3080 7070/80, Email : corporateoffice@spgcl.com , Web : sksispat.com

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Annexure - II

Mechanism for assessment of Environmental Compensation for non-compliance of targeted flyash utilization by thermal power plants

1. Provisions of Flyash Notification

Ministry of Environment, Forest & Climate Change (MoEF&CC) issued directions vide notifications dated 14th September, 1999, 27th August, 2003, and 3rd November, 2009 respectively for achieving the target of 100% fly ash utilization by all Coal/Lignite based thermal power stations in the country in a progressive manner.

1.1 1999 notification

As per the notification para 2

Sub-paara (2) : Every coal or lignite based thermal power plant commissioned subject to environmental clearance conditions stipulating the submission of an action plan for full utilisation of fly ash shall, within a period of **nine years** from the publication of this notification, phase out the dumping and disposal of fly ash on land in accordance with the plan. Such an action plan shall provide for thirty per cent of the fly ash utilisation, within three years from the publication of this notification with further increase in utilisation by atleast ten per cent points every year progressively for the next six years to enable utilisation of the entire fly ash generated in the power plant atleast by the end of ninth year. Progress in this regard shall be reviewed after five years.

(3) Every coal or lignite based thermal power plant not covered by para (2) above shall, within a period of **fifteen years** from the date of publication of this notification, phase out the utilisation of fly ash in accordance with an action plan to be drawn up by the power plants. Such action plan shall provide for twenty per cent of fly ash utilisation within three years from the date of publication of this notification, with further increase in utilisation every year progressively for the next twelve years to enable utilisation of the entire fly ash generated in the power plant.

1.2 2009 notification (2nd amendment to principal notification)

Thermal Power Stations in operation before the date of 3rd November, 2009 Notification were to necessarily achieve the target of fly ash utilization in successive 5 years as: at least 50% by 1st year; 60% by 2nd year ; 75% by 3rd year; 90% by 4th year and 100% by 5th year from the issue of this notification.

The unutilised flyash in relation to the target during a year, if any shall be utilised within next two years in addition the targets stipulated for those years and balance unutilised flyash accumulated during first five years (the difference between the generation and the utilisation targets) shall be utilised progressively in next five years in addition to 100% utilisation of current generation of flyash i.e by 2019

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2.3 New Thermal Power Stations coming into operation after the MoEF's notification (i.e. 3rd November, 2009) were to necessarily achieve the target of fly ash utilization as: atleast 50% by the 1st year, 70% by 2nd year , 90% by 3rd year and 100% by 4th year from their date of commissioning.

The unutilised flyash in relation to the target during a year, if any shall be utilised within next two years in addition the targets stipulated for these years and balance unutilised flyash accumulated during first four years (the difference between the generation and the utilisation targets) shall be utilised progressively in next five years in addition to 100% utilisation of current generation of flyash . i.e. by 2018.

Further vide Notification No. S.O 254(E) dated 27th January 2016, para (5) "coal or lignite based thermal power plants were directed to comply with the provisions in the said notification in addition to 100 % utilization of fly ash generated by them before 31st December, 2017".

2. Joint Committee constituted by MoEF & CC

A Joint committee has been constituted by MoEF & CC in pursuance of the direction of Hon'ble NGT dated 20.11.2018 in OA No. 117 of 2014 in the matter of shantanu Sharma Vs Union of India and 102 of 2014 in the matter of Sandplast (India) Ltd. Vs Union of India & Ors to discuss action plan to achieve 100 % flyash utilisation by thermal power plants. In its meeting held on 18th April, 2019 the said Joint committee decided that "CPCB will come out the mechanism to determine the quantum of penalty based on (per ton or percentage basis) to be paid for violation".

3. Determination of Environmental Compensation (EC)

3.1 CPCB on the direction of the Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors has formulated following formula for levying the environmental compensation penalty due to non-compliance of the environmental standards / violation of any directions by industries;

EC = PI x Rx N x F x LF
= ₹ 30000per day (80x250x1.5) x N x LF
EC = Environmental compensation/penalty (₹);
PI = Pollution Index of industrial sector (80 for red category of industries)
R = Rs in per day (₹ 250)
N = Number of days of violations.
F = Scale of operation of industrial sector, small 0.5, medium 1.0 and large 1.5
LF = Location factor,1.5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.2 In light of the above environmental compensation (₹30000 per dayx330 days per year= ₹9900000, say 1 crore per year), it is proposed that , EC may be imposed based on annual basis for compliance of flyash notification after December 31st, 2017 as below:

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3.2.1 **EC for plants commissioned before 3.11.2009**

A : EC for year 2018 and 2019

EC = ₹ 1 crore/year x C x P x LF

C : Capacity factor 1 for 500 MW and MW/500 for other capacity
P : Non-compliance during the year i.e. (100- % utilisation during the year /100)
LF = Location factor, 1.5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

B: Annual EC for year 2020 onwards

EC = ₹ 1 crore/year x C x P' x LF

P' : Overall non-compliance in terms of multiple factor of annual generation i.e. total accumulated flyash at the end of year divided by annual flyash generation at full capacity
LF : Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.2.2 **EC for plants commissioned after 3.11.2009**

A : EC for year 2018

EC = ₹ 1 crore/year x C x P x LF

C : Capacity factor 1 for 500 MW and MW/500 for other capacity
P : Non-compliance during the year i.e. (100- % utilisation during the year /100)
LF: Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

B: Annual EC for year 2019 onwards

EC = ₹ 1 crore/year x C x P' x LF

P' : Overall non-compliance in terms of multiple factor of annual generation i.e. total accumulated flyash at the end of year divided by annual flyash generation at full capacity
LF : Location factor, 1..5 if industry is located in critically polluted area/urban area /ecologically sensitive area; otherwise 1

3.3 Temporary storage upto 90 days of generation of flyash shall be allowed and no environmental compensation will be imposed for accumulated quantity.

…….xxx….

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Minutes of meeting of Joint Committee (JC) held on 18th April, 2019 (Thursday) under the Chairmanship of Shri Ritesh Kumar Singh, Joint Secretary to discuss action plan to achieve 100% fly ash utilization by the Thermal Power Plants.

The list of participants is at **Annexure**. Dr. G.D. Ransinchung R.N., Associate Professor, Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology, Roorkee could not attend the meeting due to unavoidable circumstances.

1. At the outset of the meeting, after a round of introduction by the members of the Expert Committee, the Chair welcomed the participants and introduced the agenda of the meeting.

It was informed that NGT vide its order dated 20.11.2018 directed MoEFCC to constitute a Joint committee for finalizing action plan to achieve 100% utilization of fly ash generated from TPPs in an environmentally sound manner. The Committee will also be required to determine the amount of damages to be paid for the violation of requirement of utilisation of fly ash. Further, NGT vide its order dated 12.03.2019 stated that on Appeal, the Hon'ble Supreme Court vide order dated 25.01.2019 in Civil Appeal No. 650 of 2019 considered it appropriate to grant the applicant an opportunity to indicate the steps taken for compliance of the Notification to this Tribunal. NGT has allowed applicants to place their views before the Committee.

2. The Committee deliberated upon various efforts made for enhanced utilisation of fly ash in the following sectors:
   i. **Ash based building construction material such bricks/blocks/tiles.** Use of fly ash in manufacture of fly ash bricks is technically well established and being utilized in large scale in some part of country. However, the extent of fly ash utilization under this sector is about 9% only and it needs enhancement.

   In order to enhance fly ash utilization, MoEF &CC has issued the following necessary directives through its gazette notification dated 25-01-2016:
   a. Mandatory use of fly ash based products for construction activity by every construction agency within a radius of 300 km from coal/lignite based power plants.
   b. Power plant to bear transportation cost of fly ash up to radius of 100 km and beyond radius of 100 km to 300 km, it shall be borne equally by the fly ash users and power plants.
   c. Coal based power plant to bear entire cost of transportation of fly ash up to radius of 300 km in asset creation program of Government involving construction of building, roads, Dams.

Further, to maximize fly ash utilization in this sector, MoEF&CC has also issued draft amendment vide gazette notification dated 26-02-2019 inviting public comments, wherein the following provisions have been proposed:

   a. No new red clay brick kiln shall be installed within radius of 300 km of power plant.
   b. Existing red clay brick kiln within radius of 300 km of power plant shall be converted to fly ash bricks/ blocks / tile manufacturing units.

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c. To encourage conversion, thermal power plant should provide fly ash at nominal rate of Rs. 1 per ton and bear full transportation cost up to 300 km to such units.

    a. At least 20% fly ash shall be made available to units manufacturing fly ash bricks, blocks and tiles on priority basis over other users at rate Rs. 1 per ton, even, thermal power plants achieve 100% ash utilization.

ii. Road / flyover embankment construction.

This is one of the area that utilizes deposited ash of ash pond. Presently, about 3% of total ash produced is being utilized in this sector. This area envisages large quantity utilization of deposited ash but it is one time use till the road project construction is over.

To maximize ash utilization in this area, MoEF &CC has given necessary directives to thermal power plants and construction agency/ organization undertake construction of road/ fly over embankment through its gazette notification dated 25-01-2016, which are as given below:

a. Mandatory use of ash in road embankment/ fly over embankment construction within 300 km radius of coal/ lignite based thermal power plant.

b. Power plant to bear transportation cost of ash up to radius of 100 km and beyond radius of 100 km to 300 km shall bear equally between fly ash users and power plant.

c. Coal based power plant to bear entire cost of transportation of ash up to radius of 300 km in asset creation program of Government involving road construction projects under PMGSY, construction of building, roads, dams and embankments.

It is expected that use of ash in this sector will increase further.

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iii. Development of low-lying areas.

Development of low lying area with ash is one of the area where ash is being used mostly by thermal power plants in the vicinity. Presently about 11% of total ash produced is being utilized in this segment. This is also the area wherein mostly pond ash is used so that no fugitive dust emission during the ash filling activities.

For maximizing ash utilisation in this segment, MoEF&CC through its gazette notification dated 03-11-2009 given directives that " No agency, person or organization shall within a radius of three hundred kilometers of a coal or lignite based thermal power plant undertake or approve or allow reclamation and compaction of low-lying areas with soil; only fly ash shall be used for compaction and reclamation and they shall also ensure that such reclamation and compaction is done in accordance with the specifications and guidelines laid down by the authorities". In the revised directive, the distance has been increased from 100 km to 300 km and therefore, ash utilization will increase in this segment.

iv. Reclamation of abandoned mine voids

Ash is being used in reclamation of abandoned coal mine voids by many pithead thermal power stations. This is one of areas where large quantity of ash produced by pithead and remotely located power plants can be utilized on sustainable basis. Huge size of pits

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developed due to coal mining can be converted in to developed land for afforestation and other useful purposes. However, present utilization is limited to about 6% only.
The provisions in the MoEF&CC gazette notification dated 03-11-2009 stipulate that atleast 25% ash can be mixed with Overburden material for filling in the coal mines and other mines of mineral and metals. Mixing of fly ash along with over burden material and filling in operating coal mine is not being accepted by Coal India Limited (CIL) and Ministry of Coal (MoC) due to mine safety issue. However, CIL and MoC are allowing ash back filling in abandoned mine voids.

In order to identify the abandoned coal mine voids so that same will be given to thermal power plant for backfilling with ash, a task force having members from various stake holders has been constituted by Ministry of Power to identify the abandoned coal mine voids and other mines mineral and metals. The identified mine voids will be allocated to thermal power plants for taking up ash backfilling. CPCB is also working to formulate the guidelines/ Standard Operating Procedure (SOP) so that ash filling will be carried out environment friendly manner by thermal power plants. This will help to achieve 100% ash utilization by pithead power plants.

v. As soil conditioner in Agriculture

Fly ash is used as soil conditioner in agriculture. Present use in this segment is limited to 1% only. Amendment fly ash notification dated 25-01-2016 prescribes that the Ministry of Agriculture may consider the promotion of ash utilisation in agriculture as soil conditioner. This will help to enhance fly ash utilization.

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3. Further, Thermal Power Plants were requested to give presentation on the action plan as well time frame to achieve 100% fly ash utilisation. The presentations and discussions are summarised below:

1) NTPC

NTPC informed that total installed capacity of their TPPs is 55,126 MW during 2018-19. Ash production was 61.03 million Ton and Ash utilisation was 38.88 million Ton, which is 63.71%. NTPC has categorised their TPPS into three categories based on its utilisation (i.e. A- 100%; B-50 – 90 %; C- < 50 %).

7 TPPs namely Dadri. Tanda, Unchahar, Ramagundam, Simhadri, Talcher-Thermal & Solapur fall under category ‘A’. These power production units have achieved 100 % fly ash utilisation.

5 TPPs namely Mouda, Kudgi , Bongaigaon, Barh & Farakka are falling under category ‘B’. They informed that there are huge availability of fly ash due to number of TPPs nearby and limited fly ash utilization potential due to remote location. They informed that following steps being taken to achieve 100 % utilization:

- Rail loading facilities for **bulk transportation**
- Signed agreement with Railway Board for SFTO License

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- Order placed for supply of 3 nos. BTAP wagons
- Long term tie up with cement industries (Dadri, Unchahar, Farakka, Kahalgaon,Khargone and in process at Rihand, Vindhyachal, Barh
- Fly ash bagging machines to facilitate distant users
- Incentive to encourage lifting of fly ash from Pithead stations
- 20% dry ESP fly ash is being given free of cost to brick/ block /tiles manufacturers at all stations.
- Setting up fly ash park at consumption centers like Varanasi, Rewa, Bhubaneshwar, Raipur, Pune.
- Bearing transportation cost of fly ash for brick manufacturers (Sipat, Talcher Th, Talcher Kaniha)
- Setting up LWA manufacturing plant of capacity of 50,000 tons/ year
- Manufacturing & using Fly ash bricks at all TPS
- Regularly organizing Ash Users Meet to enhance awareness
- Close coordination with NHAI & road construction agencies since 2003 notification for use of fly ash, result -
- 20 LT in Noida – Greater Noida express
- 67LT in Allahabad Bypass road
- 40 LT in Behrampur Dalkhola Road in W.B.
- 8 LT in Hapur-Moradabad Road
- 20LT in Eastern Peripheral Road
- Supplied ash in PMGSY road projects at Sipat
- MoU with NHAI
- More than 10 MoU (about 100 LT ash) signed with NHAI for bearing transportation cost of fly ash in Road Projects at Unchahar, Tanda, Talcher-Kaniha, Farakka, Simhadri and Mouda
- More than Rs. 100 crore paid to NHAI
- MoUs are under process for another about 100 LT ash
    - Studies taken up for use of bottom ash in stowing of UG mines at Ramagundam & Korba
    - Bottom ash is being used at Ramagundam & Korba on regular basis
    - MCL has allocated South Balanda Mine in 2004 & Ash filling is being done since 2005 on regular basis from Talcher Thermal
    - SECL has allocated in 2018 & ash backfilling has been started in Manikpur mine
    - EC for ash filling in Jagannath mine has been given in 2018, ash filling will start by by July 2019
    - Gorbi Mine has been agreed by NCL in 2018 and now environment studies are under progress for EC clearance

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They also requested for the following support:

- Mandatory use of fly ash bricks in all Govt. sectors as per MoEF&CC notification
- District Authorities to identify consumption centres so that Fly Ash Park may be developed and fly ash will be made available from remotely located pithead TPS
- Development of SOR rates for fly ash transportation by State Authorities
- Promotion for use of fly ash in Concrete roads
- Identification & allocation of abandoned mines for ash filling to TPS
- Guidelines for ash filling in Mines by CPCB

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- Allocation of other metal mines by Ministry of Mines for ash filling
- Rapid EC & DGMS Clearance for Ash filling in mines.
- For Pithead stations, mine filling is major area of ash utilization. Abandoned mines are yet to be identified, therefore, ash utilization targets may be extended for another 3 years for pithead stations
- Review of EC conditions on use of fly ash in low lying area filling, mine back filling and for agriculture purposes.
- Increase availability of more no. of rakes by Indian Railway for bulk transportation of fly ash

After detailed deliberation, the Committee noted that Category B and Category C type TPPs are required proper attention for achieving 100 % fly ash utilisation**. It was decided that NTPC should furnish plant wise quarterly target for category "B and C" TPPs. Time frame to achieve 100% fly ash utilisation for category B TPPs should be 1 year i.e. by March, 2020. 2 years should be given for category C TPPs to achieve 100 % utilisation. The Committee was also of the view that cost of expenditure incurred on the compliance of 100% fly ash utilisation may be transferred to the power generation tariff. A cost estimate may be furnished for achieving 100 % fly ash.**

It was also informed that the Ministry has included use of fly ash bricks in the construction of all Government buildings in the draft fly ash notification, 2019. District Magistrate has also been incorporated as Monitoring Authority in the said draft Notification.

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2) M P Power Generating Co Ltd.

MP Power Generating Co Ltd. is operating 4 Thermal Power Stations with the total install capacity 5400 MW. Total fly ash generation and utilisation was 61.75 Lakh MT and 41.83 Lakh MT respectively, which 41.8% utilisation during 2018-19. They informed that as per action plan submitted, ATPS, STPS and SGTPS will achieve 100% fly ash utilisation by 2019-20. SSTPP-stage I will achieve 100 % fly ash utilisation by 2020-21 and SSTPP-stage II (plant commissioned in 2019) will achieve 100 % fly ash utilisation by 2021-22. It was also informed that Approx. Rs. 60 crores are expected to be incurred as transportation cost in the year FY 2019-20. It was also requested that the regulator should consider additional expenditure incurred/to be incurred in respect of transportation cost or sharing the same due to MOEF&CC Notification 2016, by the TPSs, be permitted to be billed and recovered additionally on actual basis as revenue regarding passing on the transportation cost in tariff.

3) Chhattisgarh State Power Generation Company Limited

CSPGCL is operating 5 Thermal Power Stations. Total Installed capacity for Power Generation of CSPGCL Thermal Power Stations are 3280 MW. TPP wise break up is as given below:

S.N.	Name of Thermal Power Stations	Location	Established Since	Capacity

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1.	Korba Thermal power Station (Korba East)	Korba	1966-68, 1976,1981	(4 x 50 MW + 2 x 120 MW) = 440 MW
2.	DSPM Thermal Power Station (Korba East)	Korba	2007-08	(2 x 250 MW) = 500 MW
3.	Hasdeo Thermal Power Station (Korba West)	Darri, Korba	1983-86	(4 x 210 MW)=840 MW
4	Korba West Extn	Darri, Korba	2013	(1 x 500 MW) = 500 MW
5.	ABV Thermal Power Station	Janjhgir Champa	2016	(2 x 500 MW) = 1000 MW

A total of 60 lacs MT fly ash was generated from CSPGCL Thermal Power Stations. Fly ash utilisation was around 47.46 % during 2018-19. They informed that KTPS, Korba East has achieved 100 % fly ash utilisation during 2018-19. However, other four TPPs did not achieve 100 % fly ash utilisation. CSPGCL informed that sincere efforts were made by the company to improve the fly ash utilization from 19.90% for the FY 2014-15 to 47.36 % for the FY 2018-19. Targets could not be achieved due to the following constraints:

i. Cement Industry:-

- Cement Plants are located near Balodabazar, Bhatapara & Raipur which is about 160 to 200 Km from the Company's Thermal Power Plants located at Korba. There are many number of Thermal Power Plants which are in the close vicinity of the cement industries, therefore these cement industries are meeting their Fly Ash requirement from near-by NTPC and other CPP/IPP Thermal Plants as per their convenience.

- Cement manufacturers are demanding transportation cost to transport the ash from the thermal plants located at Korba.

ii. Mine filling:-

- Abandoned Manikpur Open Cast Mine (MOCM) has been allocated by SECL to CSPGCL & NTPC for ash filling in Void. Out of 27 MCM, 13.5 MCM has been allotted to CSPGCL for filling.
- After tri-partite agreement between SECL, NTPC and CSPGCL on dt. 04.10.2018, ash filling has been started and in progress from DSPM-TPS and KTPS Plant.
- Price bid opened for transportation of ash from HTPS Korba West to Manikpur OCM. Order shall be issued shortly.
- There are no other mines or stone/moorum quarry available in Korba area for filling/stowing Fly Ash.

3. Land filling:-

- There are limited scope for ash filling in low lying area nearby Korba as the Thermal Power Plants are under operation since last 4 decades & available spaces are nearly exhausted. Low lying area available is once only opportunity & cannot be considered as certain scope for Fly Ash Utilization in coming years also.

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4. Roads/Highways:-

- At present Construction of National Highway roads near -by Korba & Janjhgir-Champa area is not in pipeline, hence requirement of fly ash in head (NHAI) is NIL.

5. Bricks Manufacturing:-

- At Korba area 49 Ash brick manufacturing units are working. Ash requirement for these units are nominal. However, there are many number of Thermal Power Plants in Korba area. Ash is being supplied to these units of brick manufacturers free of cost. The requirement of Fly ash from Fly ash brick manufacturers is even below 2% of total ash generation.

They have submitted plant wise and quarter-wise action plan to achieve 100 % fly ash utilisation. They informed that 1st year (i.e. 2019-20) target is to achieve in the range of 60-80 % fly ash utilisation and subsequent 2nd year (i.e. 2020-21) target is to achieve 100 %.

4) Punjab State Power Generation

Punjab State Power Generation is operating 3 TPPs. They informed that Guru Gobind Singh Super Thermal Plant Ropar (1260 MW) and Guru Nank Dev Thermal Plant (440MW) Bathinda have achieved 100 % fly ash utilisation. However, Guru Hargobind Thermal Plant (920 MW) Lehra Mohabat has achieved 71 % fly ash utilisation. Now, Punjab State Power Generation has submitted quarterly action plan to achieve 100 % utilisation by FY 20.

5) Tata Power Company Limited

Tata power is operating 4 TPPs, out of which, 3 TPPs namely Coastal Gujrat Power Limited (4000 MW), Trombay Thermal Power Station (750 MW) and Maithon Power Limited (1050 MW) have achieved 100% fly ash utilisation. Jojobera Power Plant of TATA Power(547.5 MW) has achieved 88 % fly ash utilisation during 2018-19. They have submitted quarterly action plan for Jojobera Power Plant to achieve 100 % fly ash utilisation. As per action plan, the said unit will achieve 100 % fly ash utilisation by FY 20.

6) MB POWER (Madhya Pradesh) LTD.

- MB Power (Madhya Pradesh) Limited (MBPMPL) operates a 2 x 600 MW TPP located in District Anuppur in Madhya Pradesh. They informed that as per the "Environment Clearance" granted to the project (vide letter no.J-13012/99/2008-IA.II(T) dated 28.05.2010):

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"(xv) Utilization of 100% Fly Ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the Regional Office of the Ministry from time to time."

As such MBPMPL needs to comply with 100% fly ash utilization target by April 2020 (4 years from Plant CoD). However, they achieved 100% utilization of Fly Ash for the year 2018-19 i.e. within third year of operation.

Now, they requested that NGT Order dated 20.11.2018 should not be applicable on TPP's, including MBPMPL, which are yet to complete four years of operation since commissioning.

MBPMPL has submitted month wise action plan to achieve 100 % fly ash utilisation for the FY 2019-20.

7) D B Power Ltd.

DB Power is operating 2 x 600 MW TPP in District Janjgir Champa, Chhattisgarh. Fly ash utilisation was 84.6 % during 2018-19. D B Power Ltd. has submitted quarter wise action plan to achieve 100 % fly ash utilisation by FY 20.

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8) NTPC Tamil Nadu

NTECL is operating 3x500 MW Thermal Power plant. Fly ash utilisation was 67 % during 2017-18. NTECL has submitted quarter wise target to achieved 100 % fly ash utilisation. As per action plan, TPP will achieve 81.04 % fly ash utilisation during FY 20 and 100.02% fly ash utilisation by FY 21 respectively.

9) **Adani Power Limited**

Adani Power Limited is operating 4 Coal based Thermal Power Plants i.e. Mundra, Tiroda, Kawal and Udupi with total installed capacity of 10,440 MW. Adani Power Ltd. Mundra Unit, Kawal and Udupi have achieved 100 % fly ash utilisation during 2017-18 and 2018-19. Fly ash utilisation in Tiroda TPP was 80.97% and 84.45% during 2017-18 and 2018-19 respectively. The Committee suggested that use of fly ash in the construction mound cannot be considered as fly ash utilisation. Accordingly, Adani Power Limited, has submitted revised quarter wise plan for Tiroda TPP. As per action plan, TPP will achieve, 66.52 % utilisation by FY 20 and 100% fly ash utilisation by FY 21.

9. **NALCO Angul Odisha**

NALCO has coal based thermal power plant with installed capacity of 1200 MW (10 units x120MW each). Ash utilisation was 75.29 % during 2018-19. NALCO informed that following steps have been taken to enhance the fly ash utilisation:

i. Ash utilization in Bricks & Asbestos manufacturing:

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a. Subsidy Paid to Brick Manufacturers

2016-17	**Rs 1.19 Cr**
2017-18	**Rs 3.10 Cr**
2018-19	**Rs 5.10 Cr**

ii. Use of fly ash in construction of road

iii. Ash utilization by Low Lying area filling and Abandoned stone quarry reclamation

iv. Mines Void Filling:

a. NALCO had signed a Memorandum of Understanding (MoU) for dumping of fly ash from NALCO's Captive Power Plant in abandoned / de-coaled quarry at Bharatpur south of Mahanadi Coal Fields Ltd. on 08.11.2003.

b. At present, the project work is **89%** completed and expected to be completed by **Sept-2019.**

c. Cost of project is Rs. 250 Crore.

d. On commissioning of the said project, NALCO will start utilizing 100% of fly ash.

NALCO has submitted the revised quarterly action plan. As per action plan TPP will achieve 75 % by FY 20 and 100% fly ash utilisation by FY 21.

10 GMR Energy Ltd.

GMR Energy Ltd. is operating 3 Coal based Thermal Power Plants i.e. GWEL, GKEL and GCEL with total installed capacity of 3x3000 MW. 2 TPPs (i.e. GWEL and GKEL) have achieved 100 % fly ash utilisation during 2017-18. GCEL unit has achieved 90.11 % and 78.48 % during year 2017-18 and 2018-19 respectively. According, TTP has submitted quarter wise target to achieve 100 % utilisation by FY 20.

Other Issues

The Committee deliberated upon the other issues of fly ash utilisation and recommended the following:

(i) CPCB will come out with the mechanism to determine the quantum of penalty based on (per ton or percentage basis) to be paid for violation.

(**Action: CPCB**)

(ii) Cost of expenditure incurred by the TPPs for fly ash utilisation may be transferred to cost of power tariff. Accordingly, it was decided to recommend the CERC to take up the matter for inclusion in the tariff mechanism.

(**Action: CEA**)

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Annexure

List of Participants

1. Joint Committee

S.N.	Name	Designation & Organisation
1	Shri Pawan Kr. Kalarwal	Director, Ministry of Power
2	Shri Peeyush Kumar	Director, Ministry of Coal
3	Shri Nazimuddin	Scientist 'E', CPCB
4	Shri Harish Kumar	DDG (Work), CPWD on behalf of MHUA
5	Shri B K Nayak	Sr. Env. Scientist , OSPCB
6	Shri Sushil Kumar	Director (PM&PG), CPWD
7	Shri Ajay Kumar Sabharwall	GM, NHAI
8	Shri Sudipto Mondal	Dy. Director, TCD Div. , CEA
9	Shri Bhagaban Bhattacharya	Asst. Director, TCD Div. , CEA
10	Shri M K Gangeya	Director, HSMD, MoEF&CC

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List of Participants

2. TPPs

S.N.	Name	Designation & Organisation
1	Shri Basuraj Goswami	GM, NTECL Vallur
2	Shri P.S.U Nair	AGM, NTECL Vallur
3	Shri Ashok Kumar Sidhwani	S.E. (RE), MPPGCL
4	Shri Aliv Sherme	AEE, PSOCL
5	Shri Satish Garg	S.E, PSPCL Patila
6	Er. Manpreet Singh	A.E PSPCL, GHTP Lehra Mohabat
7	Shri Prabujot kaur	A.E PSPCL, GNDTP Bathinda
8	Shri S.R.Patnaik	GM (Ash Management & LSP), CPP NALCO Odisha
9	Shri B.R.Den	AGM (MUH), NALCO, Ansne Odisher
10	Shri Shekhar Mukharjee	Head Officer & Ash Management, Tata Power
11	Shri Shanti Das Bhattacharye	Head Chemical & Environment, Tata Power
12	Dr. I. N. Rao	Chief Environment General sustainability, CGPL Mundra Gujarat
13	Ms Paramita Sahoo	Head Policy Advocacy, Tata Power
14	Shri Naresh P. Patil	Tata power Company Limited Trombay Thermal Power Station Mumbai
15	Shri Probhat Kumar Bhandhu	Head Environment Maithon power Ltd. Maithon Dhanbad Jharkhand – 828205
16	Shri Pankaj Kumar	Lead Associate Environment Maithon power Ltd. Maithon Dhanbad
17	Shri Nandita Singh,	Advocacy, Tata Power
18	Shri Rohit Kumar Daharwal	Additional CE, OSPGCL
19	Shri Vivek Singh	MBPMPL
20	Shri Rajesh Dudani	D.B.Power Ltd.
21	Shri Santosh Kumar Singh	Adani Power Ltd.
22	Shri Balaji	GMR Energy
23	Shri Ramesh Bhagat	GMR Energy
24	Shri Z.A.Ansari	Head Environment Management Cell , M.P. Power General Co. Ltd., Jabalpur (MD)
25	Shri P.k Sinha	ED (safety, Ash management EMG), NTPC
26	Shri A.K. Srivastava	GM (Ash Utilization), NTPC
27	Shri Ram Krishna Khandekar	AGM (Ash Management), NTPC
28	Shri Rajesh Dudani	CGM (TS), DB Power

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Minutes of 2nd meeting of Joint Committee (JC) under the Chairmanship of Shri Ritesh Kumar Singh, Joint Secretary, (MoEF&CC) held on 17th and 18th July 2019 to discuss action plan to achieve 100% fly ash utilization by the Thermal Power Plants(TPPs).

The 2nd meeting of the Joint Committee (JC) to discuss action plan to achieve 100% fly ash utilization by the Thermal Power Plants was held in the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 17th and 18th July 2019 under the Chairmanship of Shri Ritesh Kumar Singh, Joint Secretary. The list of participants of the meeting is placed at Annexure I. Representative from Ministry of Coal and Dr. G.D. Ransinchung R.N., Associate Professor, Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology, Roorkee could not attend the meeting due to unavoidable circumstances.

2.0 At the outset of the meeting, after a round of introduction by the members of the Expert Committee and the representatives of TPPs, the Chair welcomed all the participants and elucidated on the mandate of 100% fly ash utilization generated by thermal power plants. The Chair requested Sh. Manoj Kumar Gangeya, Director (HSMD) to further brief the agenda. Director (HSMD) apprised about the NGT orders dated 20.11.2018 and 12.03.2019. He also added that the previous meeting of Joint Committee was held on 18th April, 2019, wherein a period of 1 year to achieve 100 % utilization was agreed upon for non-compliant plants having fly ash utilization more than 85% and a period of maximum 2 years may be given to achieve 100 % fly ash utilization for non-compliant TPPs having fly ash utilization below 85%.

3.0 The Committee asked the representatives of TPPs to share their concerns while achieving the said target of 100% fly ash. The Committee also informed that remotely located as well as clustered TPPs should identify abandoned coal mines for fly ash backfilling and share the list with Task Force of Ministry of Power for obtaining the approval of Ministry of Coal. The CPCB has also formulated guidelines for mines backfilling in an environmentally sound manner. It was also informed that expenses incurred in fly ash disposal may be recovered from power tariff. Accordingly, CEA communicated that TPPs should submit their requests directly to CERC for reimbursement of expenses towards fly ash disposal. Further, the Thermal Power Plants were requested to give presentation on the action plan as well time frame to achieve 100% fly ash utilization. The presentations and discussions are summarized below:

1. TANGEDCO Thermal Power Plants

TANGEDCO informed that total 5 thermal power plants located at North Chennai – I (3x 120 MW & 630 MW), North Chennai –II (2x 600 MW), Mettur – I (4x210 MW), Mettur – II (1x600 MW) and Tuticorin (5 x210 MW) are operational. Their fly ash utilization was in the range of 39% -66% during previous FY 17-18 and FY

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18-19. The Committee noted that they have submitted the action plan for only one quarter instead of four quarters. However, the Committee decided that TPPs should submit revised quarterly action plan for 100 % utilization of fly ash by FY 20-21 including bottom ash within a week time.

2. Sasan Ultra Mega Power Project

Power generating capacity of Sasan Ultra Mega Power Project is 3960 MW (6 x 660 MW). During FY 17-18 and FY18- 19, fly ash utilization was in the range of 24% - 30 %. Now, Sasan Ultra Mega Power Project has submitted quarterly action plan to achieve 70 % fly ash utilization by 2019-20 and 100% utilization by FY 20-21.

3. Uttar Pradesh Rajya Vidyut Utpadan Nigarh (UPRVUN)

Uttar Pradesh Rajya Vidyut Utpadan Nigarh (UPRVUN) is operating four TPPs at Anpara (2630 MW), Obra (1000 MW), Harduanganj (610 MW) and Parochha. They informed that fly ash utilization was less than 15 % in Anpara and Obraa TPPs during 2017-18 and 2018-19. Whereas fly ash utilization was around 90 % in Harduanganj and around 87 % in Parichha. The Committee noted that they have submitted action plan for only one quarter instead of four quarters. However, the Committee decided that the TPP should submit revised quarterly action plan for 85 % utilization of fly ash by FY 19-20 and 100 % fly ash utilization by FY 20-21 within a week time.

4. **APCPL – Indira Gandhi Super Thermal Power Projec**t

Power generating capacity of APCPL – Indira Gandhi Super Thermal Power Project is 1500 MW. Fly ash utilization was 69.93 % during FY 17-18 and 103.4 % during FY 18-19. They informed that APCPL has achieved 100 % fly utilization in the FY 18-19. They have also submitted quarterly action plan to achieve 100 % fly ash utilization for the FY 19-20.

5. Jhabua Power Ltd.

Power generation capacity of Jhabua Power Ltd. is 600 MW. Fly ash utilization was 67 % during FY 17-18 and 70 % during FY 18-19. The Committee noted that they have submitted the quarter wise action plan for 81.38 % fly ash utilization instead of 100 %. They have also submitted quarterly action plan to achieve 80 % fly ash utilization in FY 19-20 and 100 % fly ash utilization in FY 20-21.

6. NTECL

Power generation capacity of NTECL. is 1500 MW. Fly ash utilization was 64 % during FY17-18 and 67 % during FY 18-19. They informed that they will achieve 81 % fly ash utilization by FY 19-20 and 100 % fly ash utilization will be achieved by

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FY 20-21.

7. Odisha Power Generation Corporation Ltd. (OPGC)

Power generation capacity of OPGC. is 420 MW. Fly ash utilization was 55 % during year 2017-18 and 33 % during 2018-19. The Committee noted that they have submitted the quarter wise action plan for 60 % fly ash utilization instead of 100 % in the year 2019-20. They informed that they will achieve 100 % utilization in the year 2023-24. However, the Committee decided that the TPP should submit revised quarterly action plan for 85 % utilization of fly ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.

8. West Bengal Power Development Corporation Limited

West Bengal Power Development Corporation Limited (WBPDCL) is operating Thermal Power Plants at Sagardighi (1600 MW) and Bakreswar (5x 120 MW). They informed that fly ash utilization by the Bakreswar Thermal Power Station was 99.38 % in 2017-18 and 116.98 % in 2018-19. However, fly ash utilization by Sagardighi Thermal Power Plant was 65.54 % in 2017-18 and 93 % in 2018-19. The Committee noted that there is improvement in fly ash utilization and also Sagardighi Thermal Power Plant has submitted fly ash utilization action for 75 % in 2019-20 and 96 % in 2020-21. However, the Committee decided that the TPP should submit revised quarterly action plan for 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.

9. O P Jindal Super Thermal Power Plant Stage-I (Jindal Power Limited)

Jindal Power Limited is operating O P Jindal Super Thermal Power Plant TPP Stage – 1 (1000 MW) and TPP Stage – II (2400 MW). Fly ash utilization of both TPPs Stage – I and II was 75 % in 2017-18 and 102 % in 2018-19. They have also submitted action plan for achieving 100 % fly ash utilization in 2019-20.

10. Damodar Valley Corporation (DVC)

DVC is operating 5 thermal power plants namely, Bokaro Thermal Power Station (BTPS; 710 MW), Durgapur Thermal Power Station (DTPS; 210 MW), Durgapur Steel Power Station (DSTPS; 1000 MW), Koderma thermal power Station (KTPS; 1000 MW), Raghunathpur thermal power Station (RTPS; 1200 MW). Fly ash utilization by BTPS was 82.20 % in 2017-18 and 36.12 % 2018-19. Fly ash utilization by DTPS was 4.5 % in 2017-18 and 8.5 % 2018-19. Fly ash utilization by DSTPS was 76 % in 2017-18 and 76 % in 2018-19. Fly ash utilization by KTPS was 71.69 % in 2017-18 and 98 % in 2018-19. Fly ash utilization by RTPS was 2.5 % in 2017-18 and 9.7 % in 2018-19. They have submitted quarter wise action plan for 100 fly ash utilization by BTPS for 2019-20; 97 % fly ash utilization by KTPS; 86 % fly ash utilization by DTPS and 28 % fly ash utilization by RTPS. Therefore, the

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Committee suggested them to submit revised quarterly action plan to achieve 100 % fly ash utilization for KTPS, DTPS, DSTPS and RTPS.

11. Telangana State Power Generation Corporation Limited (TSPGCL)

Telangana State Power Generation Corporation Limited (TSPGCL) is operating 4 Thermal Power Plants namely Ramagundam 'B' (62.5 MW), Kothhagudem thermal power station Stage – V & VI(1000 MW), Paloncha (720 MW) and Kakatiya (600 MW). TPP Ramagundam has achieved 69 % fly ash utilization in 2017-18 and 126 % in 2018-19. Fly ash utilization by TPP, Kakatiya was 75 % in 2017-18 and 100 % in 2018-19. They also informed that Ramagundam TPP and Kakatiya TPP will achieve 100 % fly ash utilization in 2019-20. Fly ash utilization by Kathagudam TPP V & VI was 6 % in 2017-18 and around 20 % in 2018-19. Fly ash utilization by Kathagudam TPP, Paloncha was 33.8 % in 2017-18 and 41.2 % in 2018-19. The Committee noted that submitted action plan for Kathagudam TPP and Paloncha TPP is not as per format. Therefore, the Committee decided that both TPPs should submit revised quarterly action plan for 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by 20-21.

12. Karnataka Power Corporation Limited (KPCL)

Karnataka Power Corporation Limited (KPCL) is operating 3 TPPs namely Raichur Thermal Power Plant (1720 MW), Ballari Thermal Power Pant (1700 MW) and Yeramarus Thermal Power Plant (1600 MW). Raichur Thermal Power Plant has achieved 57.18 % and 70.14 % fly ash utilization in 2017-18 and 2018-19 respectively. Ballari Thermal Power Station has achieved 50 % and 73 % fly ash utilization in 2017-18 and 2018-19 respectively. Fly ash utilization by the Yeramarus Thermal Power Plant was 0 % in 2017-18 and 32 % in 2018-19 respectively. KPCL informed that 100 % fly ash utilization will be achieved by Ballari and Yeramarus TPPs in 2019-20 and also submitted quarter wise action plan. The Committee noted that KPCL has submitted action plan to achieve 87 % fly ash utilization by the Raichur Thermal Power Plant in 2019-20. However, the Committee decided that the Raichur Thermal Power Plant should submit revised quarterly action plan for 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.

13. Hinduja National Power Corporation Limited (Andhra Pradesh)

Power generating capacity of TPP is 1040 MW. Fly ash utilization by TPP was 18 % in 2017-18 and 256 % in 2018-19 respectively. They have also submitted action plan to achieve 69 % fly ash utilization in 2019-20 and 100 % fly ash utilization in 2020-21.

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14. Bajaj Energy Limited (BEPL)

Bajaj Energy Limited (BEPL) has 5 TPPs with total power generation capacity of 450 MW at Barkhera, Khambrt Khera, Kunarki, Maqsoodapur and Utraila, UP. Fly ash utilization by all 5 TPPs was 99 % in 2017-18 and 100 % in 2018-19 respectively. They have also submitted action plan for achieving 100 % fly ash utilization in 2019-20.

15. Kanti Bijlee Utpadan Nigam

Power generation capacity of the TPP is 610 MW. They informed that percentage fly utilization by the TPP was 34 % and 40 % in 2017-18 and 2018-19. Now, they have submitted quarterly action plan for 72 % fly ash utilization in 2019-20 and 100% in 2020-21.

16. Andhra Pradesh Power Development Corporation Limited (APPDCL)

APPDCL is operating Sri Damodaran Sanjeevaiah Thermal Power Station with capacity of 1500 MW. This unit has achieved 75 % and 65 % fly ash utilization in 2017-18 and 2018-19 respectively. They informed that fly ash is being used in nearby brick industry, clicker manufacturing, export. They have submitted quarter wise action plan for 70 % fly ash utilization for 2019-20. However, the Committee decided that TPP should submit revised quarterly action plan for 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.

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17. **Gujarat State Electricity Corporation Limited (GSECL)**

Gujarat State Electricity Corporation Limited (GSECL) is operating 2 TPPs namely Ukai (1100 MW) and Wanakbori Thermal Power Pant (147 MW). Ukai TPS has achieved 75 % and 82 % in 2017-18 and 2018-19 respectively. Wanakbori Thermal Power Pant has achieved 84 % and 60 % fly ash utilization in 2017-18 and 2018-19 respectively. GSECL has submitted quarter wise action plan for Ukai to achieve 85 % in 2019-20 and 100 % in 2020-21. Wanakbori TPP will achieve 100 % fly ash utilization in FY 19-20.

18. HPGCL (Rajiv Gandhi Thermal Power Plant)

Power generation capacity of the TPP is 1200 MW. They informed that percentage fly utilization by the TPP was 84.8 % and 60 % in 2017-18 and 2018-19. They informed that there is no cement plant nearby the TPP and also not receive any response from NHAI for fly ash utilization. But they have planned to utilize their fly ash for brick manufacturing, clinker manufacturing etc. Now, they have submitted

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quarterly action plan to achieve 100 % fly ash utilization in 2019-20.

19. MSPGCL (Bhusawal Thermal Power Station)

Power generation capacity of the TPP is 1210 MW. They informed that percentage fly utilization by the TPP was 85 % and 95 % in 2017-18 and 2018-19. Bhusawal Thermal Power Station has submitted action plan to achieve 95% for 2019-20. However, the Committee decided that TPP should submit revised quarterly action plan for 100 % utilization of fly ash including bottom ash by FY 19-20.

20. Rosa Power Supply Co. Ltd.

Power generation capacity of Rosa Power Supply Co. Ltd. is 1200 MW. They informed that percentage fly utilization by the TPP was 76 % and 100 % in 2017-18 and 2018-19 respectively. They informed that Rosa Power Supply Co. Ltd. has achieved 100 % fly ash utilization in 2018-19 and they will also achieve 100 % fly ash utilization in 2019-20.

21. Spectrum Coal & power Ltd.

Power generation capacity of the TPP is 100 MW. They informed that percentage fly utilization by the TPP was 86 % and 77 % in 2017-18 and 2018-19 respectively. Now, they have submitted quarterly action plan to achieve 100 % fly ash utilization by 2019-20.

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22. Maruti Clean Coal and Power Ltd.

Power generation capacity of the TPP is 300 MW. They informed that percentage fly utilization by the TPP was 93 % and 100 % in 2017-18 and 2018-19 respectively. They are using fly ash in road project. Now, they have submitted quarterly action plan to achieve 100 % fly ash utilization by 2019-20.

23. ACB India Limited

Power generation capacity of the TPP is 270 MW. They informed that percentage fly utilization by the TPP was 100 % in 2017-18 and 2018-19. Now, they have submitted quarterly action plan to achieve 100 % fly ash utilization by 2019-20.

24. TRN Energy Pvt. Ltd.

Power generation capacity of the TPP is 600 MW. They informed that percentage fly utilization by the TPP was 76 % and 92 % in 2017-18 and 2018-19 respectively. They informed that there is no cement manufacturing unit within radius of 100 km from TPP and also no response has been received from NHAI regarding utilization

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of fly ash in road project. Now, they have also submitted quarter wise action plan for 2019-20 to achieve 93 % fly ash utilisation. However, the Committee decided that TPP should submit revised quarterly action plan for 100 % utilization of fly ash including bottom ash by FY 19-20.

25. Jindal Steel & Power Ltd.

Jindal Steel & Power Ltd. is operating 3 TPPs namely Thermal Captive Power Dongamahua, Chattisgarh (576 MW), Captive Power Plant, Raigarh (134 MW) and Captive Power Plant, Angul (810 MW). They informed that fly ash utilization by TPP Dongamahua and Raigarh was 100% in 2017-18 and 2018-19. Representative of TPP informed that they are utilizing fly ash in their working mines successfully. CPCB praised their efforts and informed that DGMS approved the backfilling in operation mines. The Committee suggested them to share their experience with the Committee as well as other TPPs. But fly ash utilization by TPP Angul was 98 % and 97 % in 2017-18 and 2018-19 respectively. Now, they have submitted quarterly action plan to achieve 100 % fly ash utilization by 2019-20.

26. R K M Powergen Pvt. Ltd.

Power generation capacity of the TPP is 1440 MW. They informed through e-mail that fly ash utilization was 90 % in year 2017-18 and 2018-19. Now, they have submitted quarterly action plan to achieve 100 % fly ash utilization by 2019-20.

27. KSK Mahanadi Power Company Limited, Village Nariyara, Janjgir Champa District, Chhattisgarh

KSK Mahanadi Power Company Limited has total installed capacity of 3600 MW (1800 MW operational and 1800 MW under construction). Unit III and Unit IV have achieved 100 % fly ash utilization in 2017-18 and 2018-19. However, Unit – II has achieved 50 % fly ash utilization in 2017-18 and 70 % in 2018-19. It was informed that unit II has started commercial operation on 26.08.2018. They have informed that Unit – III and Unit- IV will achieve 100 % fly ash utilization in 2019-20. The Committee noted that they have not submitted action plan for Unit II to achieve 100 % fly ash utilization. Therefore, the Committee suggested that the TPP should submit quarterly action plan for Unit II to achieve 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by 20-21.

28. **Andhra Pradesh Power Generation Corporation (APGENCO)**

APGENCO is operating 1650 MW Rayalaseem Thermal Power Project. Fly ash utilization by the TPP was 74 % and 84 % in 2017-18 and 2018-19 respectively.

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Now, they have also submitted quarter wise action plan for 2019-20 to achieve 90 % fly ash utilisation. However, the Committee suggested that the TPP should submit quarterly action plan for 90 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.

29. Sai Wardha Power Generation Ltd.

Power generation capacity of the TPP is 540 MW. Fly ash utilization by the TPP was 96 % and 91 % in 2017-18 and 2018-19 respectively. They informed that the said TPP will not be operational during 2019-20.

30. Tata Power Corporation (Jharkhand)

The Committee noted that Tata Power Corporation has submitted their action plan to achieve 100 % fly ash utilization in the 1st meeting of the Joint Committee.

4.0 The Committee noted that many Thermal Power Plants have not attended the meeting of Joint Committee. Therefore, it was decided that TPPs which have not attended the said meeting and also not submitted the action plan to achieve 100 % fly ash utilization by 2020-21 of their TPPs should be communicated to submit the action plan to achieve 100 % fly ash utilisation by FY 2020-21 urgently.

(**Action: CPCB, MoEF&CC & TPPs**)

5.0 In the meeting of Joint Committee held on18.04.2019, wherein it was decided that "CPCB would come out with the mechanism to determine the quantum of penalty based on (per Ton or percentage basis) to be paid for violation. Accordingly, CPCB has submitted a draft proposal for determining environmental compensation (EC). The draft proposal will be discussed in the meeting of Joint Committee and based on the recommendations, the Ministry will take necessary decision on the matter.

6.0 In the meeting of Joint Committee held on 18.04.2019, the Committee suggested NTPC to submit revised action plan for 100 % fly ash utilization for their category 'B' Thermal Power Stations namely, Mouda, Kudgi, Bongaigaon, Farakka and Barh as well as Category 'C' Thermal Power Stations namely Singrauli, Rihan, Vindyachal, Kahalgaon, Talchar-K, Korba and Sipat. Accordingly, for category B TPPs, NTPC has submitted action plan to achieve 100 % fly ash utilization by 2020-21 and for Category 'C' TPPs by 2021-22. **Therefore, the Committee decided that NTPC should submit revised quarterly action plan for Category 'C' TPPs to achieve 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by FY 20-21.**

The meeting ended with vote of thanks to the Chair.

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Annexure - I

List of Participants

A. Joint Committee

1. Shri Manoj Kumar Gangeya, Director, HSMD, Ministry of Environment, Forest and Climate Change
2. Sh Nazimuddin, Scientist 'E', CPCB (17.07.2019)
3. Sh. A N Singh, Scientist 'E', MoEF&CC
4. Dr. P.K.Prusty, Chief Environment Scientist SPCB, Odisha **(17 & 18.07.2019)**
5. Shri S K Paliwal, Scientist 'D', CPCB **(18.07.2019)**
6. Shri Bhanu Joshi, Section Officer MoP **(17 & 18.07.2019)**
7. Shri Bhagaban Bhattacharya, TCD, CEA**(17 & 18.07.2019)**
8. Sri Vijender Singh, TCD, CEA**(17 & 18.07.2019)**

B Thermal Power Plants (**17.07.2019**)

1. Shri Jaswal Singh, AE, PTPP Parichha Jhansi
2. Shri N.K. Maurya, EE, PTPP
3. Shri Mohammed Rashid, EE, PTPP, Anpara
4. Shri Ravi Prakash Yadav, EE, PTPP, Anpara
5. Shri Rajeev Kumar, EE, Obra TPS
6. Shri Jabar Singh, SE Civil HTPS Harduaganj Aligarh
7. Shri Diwakar Swaroop, S.E (E&S) UPRVUNL, Lucknow
8. Shri P. S. U. Nair, AGM (EMR), NTECL, Chennai
9. Shri D. Sarkar, CEO, NTECL, Chennai
10. Shri T. Narayan, C&I Civil TSGENCO
11. Shri G.Srinivasa Rao
12. Shri G. Raysen
13. Shri S. Sangamnerkar
14. Shri Anoop kumar
15. Shri D. Mohan Raj, TANGEDCO (Tamil Nadu)
16. Shri M. M. Maha Lakshmi, Asst. Exe. Engineer/ Civil TANGEDCO (Tamil Nadu)
17. Shri Md. Eyasin, Chief Engineer – I DVC
18. Shri Arritava roy Chowdhury, Chief Engineer – I (EM&PL)
19. Shri R. K. Chander, APCPL, Jhajjar
20. Shri J.Ramarao
21. Shri Araun Krishna
22. Dr. Lokesh Singhal, Bajaj Energy
23. Shri Balbir Singh, Advisor Power, LPGCL
24. Dr. J. K. Soni, JSPL
25. Shri Yogesh Kumar, JSPL
26. Shri Rajan Ananad, JSPL

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27. Shri B Govinda Rao
28. Shri Dipak Nath Kanti, NTPC
29. Shri V.K.Pandey, Sr. Manager(EMG) KBUNL, Muzaffarpur
30. Shri Bejaya Kumar Mishra, Sr. General Manager, OPGC Ltd,
31. Shri Umakanth Pahi, General Manager (BHS) Ib Thermal Power Station, OPGC Ltd.,
32. Shri Rupa Charan Padhy, VP HNPCL
33. Shri Abhijit Nandi, TPP, WBPDCR DGM, Env. & Safety
34. Shri Jnanendra Narayan Mondal, SM (Env) & IC, Corporate Office, WBPDCL
35. Shri Ashok Kumar Mondal, Dy. General Manager (E&S)
36. Shri R. Balasubramanian, Company Secretary, KPCL
37. Shri Bhuvanesh G.D, AEE, KPCL
38. S.N.Sharma, KPCL
39. Bijan Mishra, Sr. VP- Reliance Power

(**18.07.2019**)

40. Shri M. V. R. N Acharyulu, Sr. Deputy General Manager KSK Mahanadi Power Limited
41. Shri Nilesh kumar B. Shinde, JE, Bhusawal, MSPGCL
42. Dr. J.K.Soni (EVP), Jindal Steel & Power Ltd.
43. Shri Yogesh Sindhu (Manager), Jindal Steel & Power Ltd.
44. Er. Tinku Goyal, Asst. Executive HPGCL, Hisar
45. Shri Shanti Das Bhattacharje, Head (Chemical & Environment) Tata Power Jamshedpur
46. Shri D. M. Patel, Exe. Engr. (Ash Handling Plant) GSECL, UkaiTPS, Gujarat
47. Shri S.S.Passi, S.E., Wanokbori TPS GSKCL, Wanokbori Gujarat.
48. Shri A. B. Jaiswal, E.E (Env.) GSECL, Corporate Office, Vadodara
49. Shri H. J. Patel, DE (Fly ash Cell) GSECL, Corporate Office, Vadodara
50. Shri Bijan kumar Mishra, Sr. VP- Reliance Power
51. Shri R. Raju EE/Tech/RTPP
52. Ch. Krishna Prasa, DYEE/APPDCL
53. Shri C. P. Malik, COO, TRNEPL, Rajgarh
54. Shri Vijay Gupta, COO-ACB+ MCCC
55. Shri Tushar Ahlawat, Environment Department, ACB India Ltd.

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Minutes of 3rd meeting of Joint Committee (JC) under the Chairpersonship of Ms. Nidhi Khare, Joint Secretary, (MoEF&CC) held on 30th September 2019 to discuss action plan to achieve 100% fly ash utilization by the Thermal Power Plants(TPPs).

The 3rd Joint Committee (JC) meeting was held under the Chairpersonship of Ms. Nidhi Khare, Joint Secretary to discuss action plan to achieve 100% fly ash utilization by the Thermal Power Plants (TPPs) at the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 30th September 2019. The list of participants of the meeting is placed at **Annexure I**. Dr. G.D. Ransinchung, Associate Professor, Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology, Roorkee could not attend the meeting due to unavoidable circumstances.

At the outset of the meeting, after a round of introduction by the members of the Expert Committee, the Chair welcomed all the participants. Sh. A N Singh, Scientist 'E' briefed that the Joint Committee has been constituted based on NGT order dated 20.11.2018 for finalizing action plan to achieve 100% utilization of fly ash generated from TPPs in an environmentally sound manner. The Committee will also be required to determine the amount of damages to be paid for the violation of requirement of utilisation of fly ash. He also apprised that 2 meetings of the Joint Committee were held, wherein a period of 1 year to achieve 100 % utilization was agreed upon for non-compliant coal based thermal power plants having fly ash utilization more than 85% and a period of maximum 2 years may be given to achieve 100% fly ash utilization for non-compliant TPPs having fly ash utilization below 85%. Dr. Dharmendra Kumar Gupta, Director informed that as per CEA report 2017-18, 102 TPPs have not achieved 100% fly ash utilisation out of 167 TPPs. Joint Committee heard fly ash action plan of 80 TPPs (29 TPPs in the 1st meeting held on 18.04.2019 and 51 TPPs in the 2nd meeting held on 17th – 18th July, 2019). Out of which, 23 TPPs have to submit revised action plan and 30 TPPs have to make presentation before the Joint Committee. Further, the agenda items were discussed one by one. Thermal Power Plants were requested to give presentation on the action plan as well time frame to achieve 100% fly ash utilisation. The presentations and discussions are summarised below:

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Part -I

A. Discussion on action plan to achieve 100% fly ash utilization by the TPPs.

1. National Thermal Power Corporation (NTPC)

In the meeting of Joint Committee held during 17th and 18th July 2019, NTPC has submitted action plan for category 'B' TPPs (namely Mouda, Kudgi, Bongaigaon, Farakka and Barh) to achieve 100 % fly ash utilization by 2020-21 and the Committee suggested them to submit revise action plan for category 'C' TPPs . Now, NTPC has submitted the action plan for category 'C' TPPs (namely Singrauli, Rihan, Vindyachal, Kahalgaon, Talchar-K, Korba and Sipat) to achieve 100% fly ash utilisation by 2020-21. It was informed that chairman NHAI has requested NTPC to expedite the pending MoU between NTPC and NHAI for supply of ash to various NHAI projects. Representatives of NTPC gave assurance that action taken report on MOU with NHAI will be submitted by 15th October, 2019.

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2. Lanco Amarkantak Power Limited

Lanco Amarkantak Power Ltd. is operating 2x300 MW Thermal Power Plant at Village Pathadi, District Korba, Chhattisgarh. They informed that fly ash utilisation was 43 and 50.5% during 2017-18 and 2018-19 respectively. Now, they have submitted the action plan to achieve 100% fly ash utilisation by 2019-20.

3. Bhartiya Rail Bijlee Company Ltd.

Bhartiya Rail Bijlee Company Ltd. is operating 4x250 MW and 750 MW Thermal Power Plant in Aurangabad, Bihar. It was informed that fly ash utilisation was 28 % and 34% during 2017-18 and 2018-19 respectively. Now, they have submitted the action plan to achieve 92 % fly ash utilisation by 2020-21. Therefore, the Committee suggested them to submit revised action plan to achieve 100% fly ash utilisation by 2020-21.

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4. **Maharashtra State Power Generation Co. Ltd. (Mahagenco)**

(a) Nashik Thermal Power Station operates 630 MW TPP. Ash utilisation was 100% during the FY 2017-18 and 2018-19 respectively.

(b) Representative of Chandrapur Super Thermal Power Station informed that fly ash utilisation was 41 and 36% during FY 2017-18 and 2018-19 respectively. Chandrapur STPS has submitted the action to achieve 100% fly ash utilisation by 2019-20. Paras Thermal Power Station informed that fly ash utilisation was 39 and 43% during FY 2017-18 and 2018-19 respectively. Paras TPS has submitted the action to achieve 100% fly ash utilisation by 2019-20. Parli Thermal Power Station informed that fly ash utilisation was 64 and 83% during FY 2017-18 and 2018-19 respectively. Parli TPS has submitted the action to achieve 100% fly ash utilisation by 2019-20. The Committee also noted that Maharashtra State Power Generation Co. Ltd. has not submitted action plan for Khaparkheda and Koradi TPPs. **The Committee also noted that a representation has been received from Autoclave Aerated Concrete Block Association regarding non supply of fly ash to their manufacturing units. The Committee directed them to look into the matter and submit the compliance report. Further, the Committee suggested them to submit action plan to achieve 100% fly ash utilisation for Khaparkheda and Koradi TPPs within 3 days.**

5. **Sembcorp Energy India Ltd.**

Sembcorp Energy India Ltd. is operating 2 x 660 MW coal based TPP in Nellore district, Andhra Pradesh. It was informed that fly ash utilisation was 45 and 75% during 2017-18 and 2018-19 respectively. Now, they have submitted the action plan to achieve 85% fly ash utilisation by 2020-21. Therefore, the Committee suggested them to submit revised action plan to achieve 100% fly ash utilisation by 2020-21.

6. **Prayagraj Power Generation**

Prayagraj Power Generation is operating 3 x 660 MW coal based TPP at Bara, Prayagraj, Uttar Pradesh. It was informed that fly ash utilisation was 82.6 and 93% during 2017-18 and 2018-19 respectively. Now, they have submitted the action plan to achieve 100 % fly ash utilisation by 2019-20.

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7. CESC Ltd.

CESC Ltd. has 3 Thermal Power Plants namely Titagarh, Southern Generating Station (2x67.5 MW) and Budge Budge Generating Station (BBGS) 3 x 250 MW. Titagarh power station is not operational. Representatives of CESC Ltd. informed that Southern Generating station and Budge Budge Generating Station have achieved 100 % fly ash utilisation during 2017-18 and 2018-19. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

8. Dhariwal Infrastructure Ltd.

Dhariwal Infrastructure Ltd. is operating 2x300 MW Thermal Power Plant at Chandrapura, Maharashtra. Representatives of Dhariwal Infrastructure Ltd. informed that their TPP had achieved 100 % fly ash utilisation during 2017-18 and 2018-19. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

9. Telangana State Power Generation Corporation Ltd. (TSPGCL), Kothagudam

During 2nd Joint Committee meeting held during 17th and 18th July 2019, It was decided that TPPs (namely Kathagudam TPP and Paloncha TPP) should submit revised quarterly action plan for 85 % utilization of fly ash by FY 19-20 and 100 % fly ash utilization by 20-21. Representative of TSPGCL attended the meeting but he again provided revised action plan to achieve 38% fly ash utilisation by 2019-20 and 75.7% fly ash utilisation by 2020-21. **The Committee noted that the representatives have not taken decision of the Committee seriously. Therefore, the Committee was of the view that MD of TSPGCL may be informed about the facts and requested to furnished the information on the priority.**

10. Punjab State Power Corporation Limited (PSPCL) Lehra Mohabat

The case of PSPCL was considered by the Committee in its 1st meeting held on 18.04.2019. during the meeting PSPCL had submitted the quarterly action plan to achieve 100% fly ash utilisation but break up of the utilisation was not furnished. The Committee suggested them to submit the action plan alongwith break up in the requisite format within 3 days.

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11. Essar Power MP Ltd.

Essar Power MP Ltd is operating 2x600MW thermal power plant in Singrauli, MP. Essar Power MP Limited have achieved 61 and 86% fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2020-21. **The Committee noted that recently, ash dyke of thermal power plant was failed and ash entered into adjoining agriculture land. The Committee suggested them to revise the fly ash action plan after omitting ash dyke raising. The Committee also suggested them to submit site restoration plan of the fly ash contaminated area and action taken report on restoration plan within 7 days. The Committee also suggested them to increase utilisation of fly ash for brick manufacturing.**

12. TAQA Neyvelly Power

TAQA Neyvelly Power operates 250 MW thermal Power plant in Neyveli, Tamil Nadu. TAQA Neyvelly Power has achieved 97 and 91 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have submitted action plan to achieve 88% fly ash utilisation for single quarter. Therefore, the Committee suggested them to submit revised action plan to achieve 100% fly ash utilisation by 2019-20.

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13. Dr. Narla Tata Rao Thermal Power Station

Dr. Narla Tata Rao Thermal Power Station operates 1760 MW thermal power plant at Ibrahimpatanam, Krishna in Andhra Pradesh. Dr. Narla Tata Rao Thermal Power Station has achieved 91 and 103 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

14. Damodar Valley Corporation (DVC)

In the 2nd Joint Committee meeting held during 17th and 18th July 2019, it was decided that to submit revised quarterly action plan to achieve 100 % fly ash utilization for KTPS, DTPS, DSTPS and RTPS. Now, DVC has submitted quarter-wise action plan to achieve 100% fly ash utilisation for Bokara Thermal Power station (BTPS), Chndrapura Thermal Power Station (CTPS) and Koderma Thermal Power Station. Again the Committee reiterated that DVC should

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submit action plan of 100 % fly ash utilisation for Durgapur Thermal Power Station, Durgapur Steel Thermal Power Station (DSTPS), Mejia thermal Power Station and Raghunathpur Thermal Power Station within 3 days.

15. Lalitpur Power Generation Company Ltd.

Lalitpur Power Generation Company Ltd. is operating 3x660 MW thermal power plant at Lalitpur, Bundelkhand, Uttar Pradesh. TPP has achieved 86 and 104 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

16. JSW Energy Limited

JSW Energy Ltd. operates 2x130 MW and 2x300 MW TPPs in Toranagallu, Karnataka. Representative of JSW Energy informed that their TPPs have achieved 100 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

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17. Vedanta Limited

Vedanta Limited operates 2400 MW and 1215 MW TPPs in Jharsuguda, Odisha. Representative of Vedanta Limited informed that their TPPs have achieved 100 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

18. **Bharat Aluminium Company Limited (Balco)**

Bharat Aluminium Company Limited (Balco) operates 540 MW and 1200 MW TPPs at Balconagar and 270 MW TPP at Jamnipali, Korba, Chhattisgarh. Jamnipal TPP is under temporary suspension. Representative of Balco informed that their TPPs have achieved 60 and 102 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 83% fly ash utilisation by the year 2019-20 followed by 93% in 2020-21 and 100% 2021-22. The Committee suggested them to submit action plan to achieve 100% fly ash utilisation by 2020-21 within 3 days.

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19. Talwandi Sabo Power Ltd.

Talwandi Sabo Power Ltd operates 3x660 MW TPP in Mansa, Punjab. Representative of Talwandi Sabo Power Ltd informed that their TPPs have achieved 73 and 109 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

20. West Bengal Power Development Corporation Limited (WBPDCL)

During 2nd Joint Committee meeting held during 17th and 18th July 2019, the Committee suggested **WBPDCL** to submit revised quarterly action plan to achieve 100 % fly ash utilization for Sagardighi and Bakreswar TPPs. Now, WBPDCL vide email dated 25.09.2019 has submitted action plan for Bakreswar TPP to utilise 100 % fly ash by 2019-20 and action plan for Sagardighi TPP to utilise 85 % fly ash by 2019-20 followed by 100% by 2020-21.

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21. Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS)

SDSTPS operates 2x800 MW TPP at Nelatur Village, Krishnapatnam, Andhra Pradesh. SDSTPS has achieved 65 and 75 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have e-mailed action plan to achieve 65% fly ash utilisation by 2019-20 and 100% by 2020-21.

22. KSK Mahanadi Power Company Limited.

During 2nd Joint Committee meeting held during 17th and 18th July 2019, the Committee suggested KSK Mahanadi Power Company Limited to that the TPP should submit quarterly action plan for Unit II to achieve 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by 20-21. Accordingly, KSK Mahanadi Power Company Ltd. mailed the action plan to achieve 85 % utilization of fly ash including bottom ash by FY 19-20 and 100 % fly ash utilization by 20-21.

23. Karnataka Power Corporation Limited (KPCL)

In the 2nd Joint Committee meeting held during 17th and 18th July 2019, the Committee decided that Raichur Thermal Power Plant should submit revised quarterly action plan for 85 % utilization of fly ash by FY 19-20 and 100 % fly

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ash utilization by FY 20-21. Now, KPCL has submitted action plan for Raichur Thermal Power Plant to achieve 87 % by 2019-20 and 100% by 2020-21.

24. Andhra Pradesh Power Generation Corporation (APGENCO)

In the 2nd Joint Committee meeting held during 17th and 18th July 2019, the Committee decided that Rayalseema Thermal Power Plant should submit revised quarterly action plan for 85 % utilization of fly ash by FY 19-20 and 100 % fly ash utilization by FY 20-21. Now, APGENCO has e-mailed action plan for Rayalseem Thermal Power Plant to achieve 90 % by 2019-20 and 100% by 2020-21.

25. NLC Tamil Nadu Power Limited

NLC operates 2x500 MW TPP in Tuticorin, Tamil Nadu. NLC mailed that their TPP has achieved 100 % fly ash utilisation during 2017-18 and 2018-19 respectively. They have also submitted action plan to achieve 100% for FY 2019-20.

26.TSGENCO

TSGENCO operates 500 MW Kakatiya Thermal Power Project –I. TPP has achieved 78 and 101 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

27. Rattan India Power Ltd.

Rattan India Power Ltd. operates 2x270 MW Thermal Power Plant in MIDC Amravati. Rattan India Power Ltd. has e-mailed that their TPP has achieved 158 and 115 % fly ash utilisation during 2017-18 and 2018-19 respectively. Now, they have also submitted action plan to achieve 100% fly ash utilisation for the year 2019-20.

It was decided that action plan received from TPPs would be forwarded to CPCB and CEA. Both agencies should review status quarterly and annual basis. Quarterly status should be forwarded to MoEF&CC. CPCB should take appropriate action against the non-compliant TPPs, which have not submitted

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the action plan/revised action plan so far. It was also decided that all pollution control measures (air and water) should be adopted by the TPPs and user agencies while handling, transportation and disposal of fly ash. CPCB may issue appropriate directions in this regard.

(**Action : CPCB, CEA**)

Part- II (for internal MoEF&CC's circulation)

The meeting ended with vote of thanks to the Chair.

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Annexure – I

List of Participants

(a) Expert Members

S.N.	Name	Designation & Organisation
1	Shri Peeyush Kumar	Director, Ministry of Coal
2	Shri Pawan Kumar Kalarwal,	Director, Ministry of Power
3	Shri Narendra Kumar	Dy.Secretary, Ministry of Power
4	Shri Nazumdein	Scientist E, CPCB
5	Shri P.K. Prusty	Chief Environmental Scientist, Odisha State Pollution Control Board, Odisha
5	Shri Baleshwar Thakur	Director, TCD, CEA
6	Shri Bhagaban Bhattacharaya	AD-II, TCD, CEA
7	Shri Ajay Kumar Sabharwall	GM, NHAI
8	Shri Biswarup Basu,	CGM (Safety, Sustainable Development), NTPC Ltd.
9	Shri Bharat Bhushan	GM (Ash Management), NTPC
10	Dr. Dharmendra Kumar Gupta	Director / Scientist 'F', MoEF&CC
11	Shri A. N. Singh	Scientist 'E', MoEF&CC

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(b)Thermal Power Plants

S.N.	Name	Designation & Organisation
1	Shri Avijit Hazra	(DGM), CESC Ltd.
2	Shri Debanjan Basak	CESC Ltd.
3	Shri Soumen Barua	General Manager (Dhariwal Infra Structure Ltd)
4	Shri Devesh Kumar	DGM, Dhariwal Infra Structure Ltd.
5	Shri Ch. Ram Babu	DEE/Civil Dr. NTTPS, AP
6	Shri Mahesh Viprodas	VP. Regulatory, Simbcorp
7	Shri D. Siva Rama Krishna	GM, Sembcrop Energy
8	Shri A. Ravi Krishna	TSGBNCO
9	Shri Pravin Kumar VA	Sr. Ex. Engineer, TAQA Negveli Pvt. Ltd.
10	Shri, Md. Eyasin	Chief Engineer (EMPC), D.V.C
11	Shri Hardeep Singh Dhaliwal	Sr. Engineer, Thermal (CD), PSPCL, Punjab
12	Shri Vamsi Krishna Boppana	Lanco Amarkantak Power
13	Shri PDMV Prasad	Lanco Amarkantak Power
14	Shri Rakesh Jha	JSW Energy Ltd.
15	Shri Krishna Kulkarni	GM (Environment), Balco
16	Dr.A.S.P Mishra	GM (Environment), Vedanta, Jharsuguda
17	Shri T. Nrusimha	Talwandi Sabo Power Ltd

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18	Shri Vikas Sharma	Manager- Commercial, Talwandi Sabo Power Ltd
19	Shri D.Y. Chaudhary EE	MSPGCL (MahaGenco) CSTPS Chandrapur
20	Shri D.M.Shiwankar,	(Ex. Chemist), MSPGCL CSTPS Chandrpura
21	Shri S.K.Jain	Sr. Manager, BRBCL CTSP
22	Shri Kush Singh	Director, Essar Power
23	Shri Akshay Sharma	Senior Manager ,Essar Power
24	Shri Rajeev Singh	Lalitpur Power Gen. Co. Ltd
25	Shri M.K.V. Rama Rao	Prayagraj Power Generation Co Ltd BARA
26	Shri R.K.Goel	PPGCL, Bara

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Minutes of 4th Meeting of Joint Committee (JC) held on 11.12.2019 for implementation of action plan to achieve 100% fly ash utilization by the Thermal Power Plants (TPPs).

A meeting of Joint Committee was held on 11th December, 2019 at Indira Paryavaran Bhawan for implementation of action plan to achieve 100% fly ash utilization by the TPPs. The list of participants of the meeting is placed at Annexure I. Dr. G.D. Ransinchung, Associate Professor, Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology, Roorkee and Representative from Ministry of Coal could not attend the meeting due to unavoidable circumstances.

At the outset, the meeting commenced with a brief round of introduction by the members of the Joint Committee. All the participants were welcomed and it was emphasized that the need of the hour is to work towards the implementation of 100% fly ash utilization in Thermal Power Plant (TPPs).

Dr. Dharmendra Kumar Gupta, Scientist 'F'/Director, MoEF&CC apprised the committee about the actions taken so far w.r.t. task assigned by the National Green Tribunal. Three meetings of Joint Committee have been held so far. Interim report has been filed to NGT on 01.11.2019. Next date of hearing is fixed on 2.1.2020.

The agenda of the meeting was discussed and this was followed by sharing of inputs/suggestions by the committee members.

(i) Draft proposal submitted by CPCB for determining environmental compensation (EC)

i. It was informed that NGT has given task to Ministry to determine the amount of damages to be paid by TPPs for the violation of requirement of utilisation of fly ash. Accordingly, CPCB has prepared a draft proposal for determining environmental compensation for various scenario w.r.t. fly ash utilisation. Following are the comments of the committee members:

   (i) Environmental compensation for pit head plant and non-pit head plant should be different.
   (ii) Penalty should not be imposed on legacy waste. EC should not be applied retrospectively. It should be applied prospectively.
   (iii) Operational period and PLF factor need to be considered while estimating environmental compensation.
   (iv) Collected EC should be utilised for enhancement of utilisation of flyash in the respective TPP only.
   (v) There is a provision of penalties under Section 15 of E(P) Act, 1986.

   After detailed deliberation, it was concluded that environmental compensation should be imposed on non-pit head thermal power plant only as pit head plant has some genuine issues of massive fly ash generation and unavailability of user agencies nearby the Power Plant. The most viable solution for pit head plant is utilisation of ash in abandoned coal mines. But declaration of coal mines as abandoned is the major issue. Coal Ministry may be requested to expedite the allocation of abandoned mines especially for 100% fly ash utilisation. It was recommended that CPCB/SPCB should ensure that collected EC should be mobilised for utilisation of ash in the respective TPPs as far as possible.

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(ii) Finalisation of action plan to achieve 100 % fly ash utilisation by non-compliant TPPs.

It was noted that as per CEA report 2017-18, out of 167 TPPs, 104 TPPs are non-compliant in respect to the 100% utilization of flyash. Out of 104, 77 TPPs have submitted their quarterly action plan. CPCB and CEA have been directed by MoEF&CC to monitor the implementation of action plan on quarterly basis. CPCB also informed that additional 11 TPPs have submitted their quarterly action plan. It was recommended that information of 11 TPPs should be shared with the Ministry. CEA should recheck the data of fly ash utilisation of 2017-18 and confirm to the Ministry within 3 days. Efforts should be made by the CPCB to collect action plan from the TPPs who have not yet submitted their action plan till date.

(**Action CPCB**)

(iii) Exclusion of ash dyke raising of ash pond as fly ash utilisation from action plan for 100 % fly ash utilisation.

Keeping in view of recent incidents of ash dyke breach at Vidhyanchal TPP and Essar TPP in Singrauli area, it was discussed that ash dyke raising of ash pond should be considered as fly ash utilisation during initial 5 years. Thereafter, TPPs can use ash for strengthening of ash dyke as per engineering requirement but can claim only a maximum of 5-7% of fly ash generation as utilisation. This will prevent ash dumping at ash pond.

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With regards to breach sites at Vidhyanchal TPP and Essar TPP in Singrauli area, it was decided that CPCB should direct MP Pollution Control Board to ensure effective restoration/remediation of affected sites urgently. Action Taken report should be furnished to this Ministry within a week.

Action (CPCB and MPPCB)

(iv) Utilisation of unutilized accumulated fly ash (pond ash)

It is recommended that for non-pit head plant, the balance unutilized fly ash accumulated (the difference between the generation and the utilization target) shall be utilized progressively over next three years in addition to 100% utilization of current generation of fly ash w.e.f. April 2021.

With regard to pit head plant, the balance unutilized fly ash accumulated (the difference between the generation and the utilization target) shall be utilized progressively over next four years in addition to 100% utilization of current generation of fly ash w.e.f. April 2021.

(v) Draft amendment to fly ash notification issued on 25.02.2019.

It was noted that draft amendment to fly ash notification was issued on 25.02.2019 with the following important provisions:

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a. Ban on construction/operation of red clay bricks kilns within 300 km from coal based thermal power plant.
b. To encourage the conversion, TPPs should provide fly ash @ 1 Re per ton and bear the full transportation charges upto 300 km to such units.

It was noted that around 35,000 comments/suggestions have been received from the various stake holders on the draft notification. Out of these, around 33,000 comments/suggestions have been received stating objections/ opposing the ban on red clay brick kilns. It was informed that Centre/State operated TPPs have raised concerns regarding bearing full transportation charge upto 300 km distance. It is difficult for them to bear transportation cost to users located beyond 100 km due to logistic issues such as absence of transportation mechanism and verification of actual users. Sometime traders are involved instead of actual users to take benefits of subsidy, which is not in consonance with the policy.

The Committee took note of the above facts.

(vi) Review of action taken report on recommendations of Expert Committee for enhanced utilisation of fly ash.

a. Ministry of Power vide OM dated 30.09.2019 has submitted an action taken report. However, status on implementation of recommendations of Expert Committee by the TPPs is not known. It was decided that Ministry of Power should follow up with State Government for necessary compliance.
(**Action: Ministry of Power**)

b. A list of seven abandoned mines has been communicated by Ministry of Coal for utilisation of fly ash in mines backfilling.

c. NTPC informed that recently a fly ash park has been set up at Rewa. It was decided that timeline for implementation for the following activities may be furnished.
    - *Time line to set up fly ash parks at Bhubaneshwar and Pune.*
    - *Long term tie up with end users at Rihand/ Vindhyachal, Barh.*
    - *Transportation through BTAP at Sipat, Simhadri, Mouda, Barh & Vindhyachal.*

(**Action: NTPC**)

d. It was noted that some action pertaining to Ash track is still pending i.e. '*CEA's app should have additional features like quarterly trends of production & utilization of fly ash'*. It was decided that these actions be expedited. It was also decided that CEA shall include an 'alert' notification in the feature of 'Ash track' for quarterly and annual non-compliance by the TPPs.
(**Action: CEA**)

e. It was informed that CEA has recently submitted information on coal based thermal power plants, which have not been linked with the App. CPCB informed that the report will be reviewed and action shall be taken against the default units accordingly.
(**Action: CEA**)

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f. NHAI informed the following status of ash requirement and utilisation:

	Ash required	**Ash Utilised**
2019-20	34.6 lakh ton	12.12 Lakh Ton
2018-19	0.42 Lakh ton	6.70 Lakh ton

It was also informed by the NHAI that they are not getting sufficient ash from NTPC. It was decided that NTPC should look into the matter and submit action taken report within 15 days.

(**Action: NTPC and NHAI**)

g. CPWD informed that directions have been issued to all States and UTs for utilisation of fly ash bricks/ blocks in their respective projects. It was also informed that State Governments are not complying with the said directions. It was decided that MoHUA shall direct the State Government/ UT Administrations to utilise fly ash based building materials in their projects.

(**Action: MoHUA**)

The meeting ended with thanks to all participants.

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Annexure – I

List of Participants

(a) Expert Members

S.N.	Name	Designation & Organisation
1	Shri S. K. Kassi	Director, Ministry of Power
2	Shri Nazimuddin	Scientist E, CPCB
3	Shri P.K. Prusty	Chief Environmental Scientist, Odisha State Pollution Control Board, Odisha
4	Shri Baleshwar Thakur	Director, TCD, CEA
5	Shri Manoj Kumar	Director (P&WA), CPWD
6	Shri Ajay Kumar Sabharwall	GM, NHAI
7	Shri Bhagaban Bhattacharaya	AD-II, TCD, CEA
8	Shri Vijjender Singh	Sr. Manager
9	Shri Bharat Bhushan	GM (Ash Management), NTPC
10	Shri P.Madhu Kumar	AE, CPWD
11	Dr. Dharmendra Kumar Gupta	Director / Scientist 'F', MoEF&CC
12	Shri A. N. Singh	Scientist 'E', MoEF&CC

(b) Thermal Power Plants

1	Shri P.Tiwari	Director (Operation), NTPC
2	Shri Biswarup Basu	CGM (Safety, Sustainable Development), NTPC Ltd.

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