

F. No. EP/12.1/109/AP/1430  
Government of India  
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE  
Regional Office (South Eastern Zone),

1<sup>st</sup> & 2<sup>nd</sup> floor, HEPC Building,  
No.34, Cathedral Garden Road,  
Nungambakkam,  
Chennai – 600034.  
Tel.No.044-2822 2325,  
E-mail: roefccc@gmail.com  
Date: 05.10.2015

To,

Shri. B.B. Barman,  
Scientist – F & Member Secretray, (Thermal Sector),  
IA Division,  
Ministry of Environment, Forests & Climate Change,  
Indira Paryavaran Bhavan, Jorbagh Road,  
Aliganj, New Delhi – 110 003.

**Subject:** Ramagundam Super Thermal Power Project Stage – III (1x500 MW) by M/s National Thermal Power Corporation Ltd. – **Compliance Certification regarding.**

**Ref:** (1). Ministry's letter No. J-13011/20/94-IA-II dated 25.09.1995  
(2). Amendment No.J-13011/20/94-IA.II dated 14.12.1998  
(3). Consent Order No. TSPCB/HYD/RGM/65/CFO/HO/2014/792 dated 12.01.2015 of TSPCB.  
(4). Ministry's Circular No. J-11011/618/2010-IA.II(I) dated 30.5.2012.  
(5). Letter No. 09/EMG/A-17/2015 dated 30.07.2015 of M/s NTPC Ltd.


Sir,

In response to the letter No. 09/EMG/A-17/2015 dated 30.07.2015 of M/s NTPC Ltd., the Regional Office of MoEF&CC at Chennai along with Officers of Telangana State PCB monitored the above referred existing project on 24.08.2015. A copy of the monitoring report is enclosed for kind perusal and appropriate action.

This issues with approval of Competent Authority vide diary no. 64 dated 01.10.2015

Yours faithfully,

Encls: As above

  
(Dr. M.T. Karupiah)  
Scientist - C

**Copy to:**

1. The Director (Monitoring Cell), IA Division, Indira Paryavaran Bhavan, Ministry of Environment, Forests & Climate Change, Jorbagh Road, Aliganj, New Delhi – 110 003 - **for kind perusal and necessary action.**
2. Shri. V. Ravi Babu, Additional General Manager (EMG, AU), Ramagundam Super Thermal Power Station, P.O.:Jyothinagar, Ramagundam, Dist. Karimnagar, Telangana State – 505215, (Phone / Mobile No. 08728-272962/ Fax No: 08728-272151) – **with reference to the letter dated 30.7.2015 of M/s NTPC Ltd.** It is requested to take necessary corrective action and submit action taken report to the Regional Office and MoEF&CC, New Delhi at the earliest.



**Government of India**  
**Ministry of Environment, Forests and Climate Change (MoEF&CC)**  
**Regional Office – South Eastern Zone**  
**Nungambakkam, Chennai – 600034.**

**MONITORING REPORT**

**PART I**

**DATA SHEET**

F. No. EP/12.1/109/AP/1430

1		Project Type : River Valley/Mining/Industry/ Thermal/ Nuclear/Other		Thermal Power Project
2		Name of the project		Ramagundam Super Thermal Power Project Stage – III (1x500 MW) by M/s National Thermal Power Corporation Ltd.
3		Clearance letter(s)/OM No. and dated		1. No. J-13011/20/94-IA-II dated 25.09.1995 2. Amendment No.J-13011/20/94-IA.II dated 14.12.1998 3. Revalidation issued on 8 <sup>th</sup> November, 2000. 4. Consent Order No. TSPCB/HYD/RGM/65/CFO/HO/2014/792 dated 12.01.2015 of TSPCB.
4		<u>Locations :</u>		
	a.	Taluk (s) District		Peddapalli (Taluk), Karim Nagar (Dist)
	b.	State (s)		Telangana
	c.	Latitudes/ Longitudes		Latitude 18° 35" N to 18° 52" N Longitude of 79° 52" E to 79° 30" E
5		<u>Address for correspondence:</u>		M/s NTPC-Ramagundam, P.O.:Jyothinagar, Ramagundam, Dist. Karimnagar Telangana State - 505215 Phone / Mobile No. 08728-272125/ Fax No: 08728-272122
	a.	Address of concerned project Chief Engineer (with Pin Code & telephone/telex/fax numbers		Shri. P.K. Mohapatra, Executive Director (R), M/s NTPC-Ramagundam, P.O.:Jyothinagar, Ramagundam, Dist. Karimnagar

				Telangana State - 505215 Phone / Mobile No. 08728-272125/ 9494807700 Fax No: 08728, 272122 (E-mail: pkmohapatra02@ntpc.co.in).																										
6		<u>Salient features</u> :																												
	a.	Present status of the project		The project has already commissioned and in operation.																										
	b.	of the environmental management plans		Covered in EIA/EMP & submitted to MoEF&CC during project appraisal.																										
7		<u>Break up of the project area</u> :																												
	a	Submergence area (forest & non-forests)		Nil																										
	b	Others		<table><tr><th colspan="3">(As informed by PA)</th></tr><tr><td>1</td><td>Main plant area</td><td>1196 acres</td></tr><tr><td>2</td><td>Temporary colony</td><td>167 acres</td></tr><tr><td>3</td><td>Permanent colony</td><td>684 acres</td></tr><tr><td>4</td><td>Ash pond</td><td>1834 acres</td></tr><tr><td>5</td><td>Balancing reservoir</td><td>4837 acres</td></tr><tr><td>6</td><td>Others (MGR, Road, Pipeline, Oxidation pond)</td><td>884 acres</td></tr><tr><td></td><td>Total area</td><td>9602 acres</td></tr></table>			(As informed by PA)			1	Main plant area	1196 acres	2	Temporary colony	167 acres	3	Permanent colony	684 acres	4	Ash pond	1834 acres	5	Balancing reservoir	4837 acres	6	Others (MGR, Road, Pipeline, Oxidation pond)	884 acres		Total area	9602 acres
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	Total area	9602 acres																												
8		Break up of project affected population with enumeration of those losing houses/dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers/artisans.		3761 (As per project Authority)																										
	a	SC,ST/Adivasis		852																										
	b	Others		2909																										
9		<u>Financial Details:</u>																												
	a	Project cost as originally planned and subsequent revised estimates and the years of price reference		(As per project Authority) Stage I & II: Rs. 2059 Crores Stage III : Rs. 1818 Crores																										
	b	Allocations made for environmental management plans, with item wise and year wise breakup (Capital & Recurring)		During the visit it is learnt that separate allocation under (Capital & Recurring cost) for EMP has not been made.																										

	c	Benefit cost ratio/internal rate of return and the years of assessment		-
	d	Whether (c) includes the cost of environmental management as shown in (b) above		--
	e	Total expenditure on the Project so far		Rs. 4340 Crores for all stages as on 31 <sup>st</sup> March 2015
	f	Actual expenditure incurred on the environmental management plans so far		Details of the expenditure incurred (both capital cost & Recurring cost) on EMP are not being maintained separately.
10		<u>Forest land requirement :</u>	-	Nil
	a	The status of approval for a diversion of forest land for non-forestry use		NA
	b	The status of compensatory afforestation, if any		NA
	c	The status of clear felling		NA
	d	Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far		NA
11		The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information		NA
12		<u>Status of construction :</u>		
	a	Date of commencement		<b>(As per project Authorities)</b> UNIT- I 200 MW – May, 1981 UNIT- II 200 MW – September, 1981 UNIT- III 200 MW – January, 1982 UNIT- IV 500 MW – April, 1980 UNIT- V 500 MW - Oct, 1985 UNIT- VI 500 MW - January 1987 UNIT- VII 500 MW – August, 2001
	b	Date of completion (actual and/or planned)		UNIT- I 200 MW – October, 1983 UNIT- II 200 MW – May, 1984 UNIT- III 200 MW – December, 1984 UNIT- IV 500 MW – June, 1988 UNIT- V 500 MW – March, 1989 UNIT- VI 500 MW – October, 1989

			UNIT- VII 500 MW –September, 2004
13		Reasons for the delay if the project is yet to start.	No delay.
14		<u>Date of site visit :</u>	
	a	The dates on which the project was monitored by the Regional Office on previous occasions, if any	01.08.2008
	b	Date of site visit for this monitoring report	24 <sup>th</sup> August, 2015

### **PRESENT STATUS**

Ministry of Environment, Forests & Climate Change vide letter No. J-13011/20/94-IA-II dated 25.09.1995 granted environmental clearance for the Ramagundam Super Thermal Power Project Stage – III (1x500 MW) by M/s National Thermal Power Corporation Ltd. (Presently in the Telangana State) subject to the implementation of environmental conditions and safeguards. As per the project authority, the land requirement for project is 9602 acres which includes Temporary and permanent Colony of the project. No forest land /ecologically sensitive area are involved. Water requirement for the project is being met from the Sriram Sagar/ Yellampalli Project. In this regard water allocation was received from I&CAD Department of Govt. A.P vide letter dated 18.06.2001. Coal is being sourced from the mines of SCCL, SECL, WCL etc. The detail of the units with various stages in NTPC Ramagundam Thermal Power Project is furnished under:

Stage	Unit	Unit Capacity	Remarks
Stage - I	Unit - I	200 MW	Stage – I & II of the project was commissioned prior to 1990. Clearance was obtained from Department of Science and Technology vide letter dated 04.11.1977.
	Unit - II	200 MW	
	Unit – III	200 MW	
Stage - II	Unit - IV	500 MW	
	Unit - V	500 MW	
	Unit -VI	500 MW	
Stage - III	Unit -VII	500 MW	MoEF&CC accorded EC vide letter No. J-13011/20/94-IA-II dated 25.09.1995.
	Total	2600 MW	

The above Stage III of the project was monitored on 24.08.2015 along with the Regional Office of TSPCB, Ramagundam and project authorities. The status of compliance on the stipulated EC conditions in respect of Stage – III is furnished under:

#### **(i). Details of power generation (As per project Authorities):**

Product	Consented Quantity	Year-wise actual production			
		2011- 2012	2012-2013	2013-2014	2014-2015
Electricity generation	2600 MW (rated capacity)	21255.369 MU	20785.224 MU	19746.229 MU	20443.114 MU

**(ii). Details of Coal consumption (As per project Authorities):**

Year	Coal receipts (indigenous) (MTS)	Coal Receipts (Imported) (MTS)	Total Consumption	Remarks / Details of Coal linkage
2011-2012	12475227	366524	12799614 MT	SCCL, SECL, WCL & MCL,CCL,ECL
2012-2013	12972246	338134	13127263 MT	
2013-2014	12610738	635640	13447960 MT	
2014-2015	13115939	1596955	14297525 MT	

**(iii). Details of fly ash generation and its disposal (As per project Authorities):**

Sl. No.	Year	Quantity generated in (Tons)	Quantity transported (Tons)	Stock available (Tons) (As on 31 <sup>st</sup> March 2015 in the ash pond)
(i)	2009-2010	42,79,679	31,33,783	59.8 Million tonnes
(ii)	2010-2011	40,65,806	26,11,111	61.9 Million tonnes
(iii)	2011-2012	42,93,583	26,08,369	64.4 Million tonnes
(iv)	2012-2013	45,20,519	3052265	66.6 Million tonnes
(v)	2013-2014	50,48,778	3152300	68.5 Million tones
vi	2014-2015	55,14.425	3551240	70.4 Million tonnes

**(iv). Quantitative details of hazardous waste generated and its disposal (As per project Authorities):**

Sl. No.	Year	Quantity produced in (Tons)	Quantity transported in (Tons)	Stock available (Tons)
(i)	2011-2012	Used oil : 69.740 MT	Used oil : 69.740 MT Lead acid Batteries : 1.77 MT E- waste: 4.880 MT	Used oil -20.94 MT Detoxified oil & grease drums – 2771 nos Used lead acid batteries -1.5 MT nos.
(ii)	2012-2013	Used oil : 91.875 Empty oil & grease drums - 679	Used oil -39.96 MT Empty oil & grease drums - 3050 nos.	Used oil -72.855MT Empty oil and grease drums -400 nos Detoxified oil & grease drums – 1000 nos. Used lead acid batteries -1.5 MT nos.
(iii)	2013-2014	Used oil 61.145 Used resins -800 lit Oil soaked cotton -865kg	Used oil -105 MT	Used oil -29 MT, Used resins -800 lit. Oil soaked cotton -865 kg Empty oil and grease drums - 469 nos. Detoxified oil & grease drums - 600 nos. Used lead acid batteries -1.9 MT
(iv)	2014-2015	Used oil -66.046	Used oil -44.9 Mt Lead acid batteries -190 nos.	Used oil - 50.146, Used resins - 800 lit. Oil soaked cotton -865 kg Empty oil and grease drums -469 nos. Detoxified oil & grease drums - 600 nos. Used lead acid batteries -330 nos.

**View of the NTPC - Ramagundam Thermal Power Plant**




### **PART-II & III**


**Subject:** Ramagundam Super Thermal Power Project Stage– III (1x500 MW) by M/s NTPC Ltd.

**Ref:** (1). Ministry's EC letter No. J-13011/20/94-IA-II dated 25.09.1995  
(2). Order No. TSPCB/HYD/RGM/65/CFO/HO/2014/792 dated 12.01.2015 of TSPCB.  
(3). EC Amendment No.J-13011/20/94-IA.II dated 14.12.1998.

<b>No.</b>	<b>EC Conditions</b>	<b>Status of Compliance along with details</b>
1.	All the conditions stipulated by the State Pollution Control Board shall be implemented effectively.	<b>Being complied.</b> As informed by the PA, the conditions stipulated by the State Pollution Control Board are being implemented.
2.	A stack of height not less than 275 meters shall be provided along with stack monitoring devices.	<b>Complied with.</b> As informed by the project authority, Stack height of 275 meter with stack monitoring facilities has been provided.
3.	The Electrostatic Precipitators having efficiency of not less than 99.8 percent shall be installed.	<b>Being complied.</b> Reportedly ESP having 99.8% efficiency has been provided. PA should maintain the log books in addition to the computerized database.
4.	The particulate emission shall not exceed the prescribed limit of 150 mg/Nm <sup>3</sup> at any time.	<b>Being complied.</b> Particulate emissions are being maintained within the prescribed limit of 115 mg/Nm <sup>3</sup> .
5.	Space provision shall be made for installation of FGD plant, if felt necessary, at future time.	<b>Complied.</b> Adequate Space has been provided for installation of FGD plant in future, if necessary.
6.	Regular monitoring of air quality (at least two days a week) in and around the power plant shall be carried out and records maintained. Periodic report (on six monthly basis) on air quality shall be submitted to this Ministry.	Ambient Air Quality monitoring is being carried out twice in a week by third party at 3 locations identified with SPCB and records are being maintained. However, third party monitored AAQ parameters are not conformed to the latest NAAQ standards. Further, the unit has installed 3 online continuous AAQ monitoring stations which are connected to the server of State PCB. The monitored AAQ data is well within the prescribed limit. The monitored data is being submitted along with six monthly compliance report to the MoEF&CC.
7.	Recycling and reuse of ash pond effluents shall be undertaken to the extent possible. There shall be no direct discharge into the river Godavari.	<b>Partly complied.</b> It appears that 70% of ash pond water is being treated and reused for ash handling. However, part of the ash pond effluents is being discharged without treatment to the nearby agriculture fields. Details are not made available regarding direct discharge of ash pond water to the river Godavari.
8.	The proposed study on leaching of heavy metals from the ash pond to ground water will be undertaken early and report furnished to	<b>Complied.</b> Project Authority informed that geo-hydrological



	this Ministry. Based on the results of the study, corrective measures if any felt necessary shall be implemented.	study was undertaken by the Indo-Dutch collaboration and report was submitted to MoEF&CC on 02.06.1997.
9.	NOC from State Pollution Control Board shall be obtained and furnished.	<b>Complied.</b> Project Authority informed that No Objection Certificate (NOC) was obtained and submitted to MoEF&CC on 23.08.1999.
10.	Dust suppression and dust extraction devices shall be installed in the coal handling areas to ensure that the level of dust is well within the prescribed limits.	<b>Being complied.</b> Dust suppression and extraction system are installed in the coal handling areas to ensure that the level of dust is well within the prescribed limits.
11.	Closed circuit cooling with induced draft cooling tower shall be provided.	<b>Being complied.</b> Closed cycle cooling system with induced draft towers has been provided.
12.	The workers in the high noise areas will be provided with ear protection devices.	<b>Being complied.</b> The workers in the high noise areas are provided with appropriate ear protection devices. Noise levels are being monitored on daily basis and records are being maintained.
13.	A workable plan for ash utilization starting with at least 20% in the first year and gradually increasing by 10 during subsequent years so as to achieve 100% Utilization by the end of the ninth year shall be prepared and submitted to this Ministry within six months.	<b>Not complied.</b> Reportedly ash utilization plan has been prepared and submitted to the Ministry. However, PA has not achieved 100% ash utilization. As informed by the PA in the year 2014-15 the unit has achieved 64.4% of ash utilization.
	<p style="text-align: center;"><b>View of Ash pond</b></p> 	
14.	In order to conserve water at thermal power station, efforts should be made to utilize the	<b>Being complied.</b>

	treated water to the maximum extent possible.	The treated effluents are being reused for ash handling. The cooling tower blow down is being reused for dust suppression system.
15.	Liquid effluents shall be treated to conform to the standards prescribed by State/Central Pollution Control Board.	<p><b>Partly complied.</b></p> <p>An integrated Effluent Treatment Plant (ETP) cum Ash Water Recirculation System (AWRS) has been provided in the above unit. All effluents from plant area are finally treated and treated effluent conformed to the discharge standards.</p> <p>However, during the visit inadequate treatment of effluent was observed due to maintenance of clarifier. Further, the parameters monitored for the inlet and outlet of the ETP are not in uniform manner and it needs to be analysed on daily basis.</p> <p>Domestic effluents are being treated in the STP.</p>
	<p><b>View of ash pond water being discharged directly to the nearby agriculture field.</b></p> 	
16.	Adequate measures for protection against various hazards such as fire shall be taken to the satisfaction of the respective authorities concerned.	<p><b>Complied.</b></p> <p>Extensive Fire detection and protection system are provided to the satisfaction of the respective authorities concerned.</p>
17.	Green belt of adequate width shall be developed all around the power plant by selecting suitable species in consultation with the authorities of State Forest Department.	<p><b>Being complied.</b></p> <p>Green belt all around the power plant has been developed. PA reportedly discussed with State</p>

					Forest Department. Details are furnished under:	
	Sl. No.	Year	Area Covered (ha)	No. of species and No. plants planted	Survival Rate	Expenditure incurred Rs.
	1	2011-12	18	20,000 No	90%	
	2	2012-13	18	20,000 No	90%	Rs.1087306.00
	3	2013-14	7	7500 No	90%	Rs. 966474.89
	4	2014-15	For 2 lakhs saplings, amount of Rs. 20 Lakhs deposited to DFO, Karimangar, Telangana under state Govt. Telanganakku Haritha Haram Program			Rs. 829272.94 Plus Rs. 20 lakhs
18.	As the liquid effluents are finally being discharged into river Godavari, a study on bio-magnification of heavy metals in the aquatic life may be taken up and the report submitted to this Ministry.				<b>Complied.</b>  The study was undertaken through M/s. Shriram Institute of Industrial Research, Delhi and the report was forwarded to MoEF&CC vide letter dated 16.08.2004.	
19.	During ash pond reclamation, the selection of species to be planted may be made very carefully taking into consideration the nature of the soil and the total climatic conditions in consultation with the authorities of the State Forest Department.				Presently, ash pond reclamation has not yet started, since it is under use. PA assured to comply with the condition.	
20.	Stack data to be furnished within three months.				Stack emissions are being monitored by MoEF&CC approved third party once in a six months and data is being furnished along with six monthly compliance reports. Further, continuous online stack monitoring has been installed and connected to the server of State PCB. <b>However, in the continuous online stack monitoring system, project authority needs to monitor gaseous emission also apart from SPM.</b>	
21.	Information on change of emission load with ESP field failures may be furnished.				<b>Being complied.</b>  PA informed that adequate care has been taken in the ESP design and function to ensure emission within stipulated standards all the times.	
22.	Copy of the confirmation regarding coal linkage to be provided.				<b>Complied with.</b>  Coal linkage had been accorded vide letter dated 02.09.1999. Copy of this letter has already been provided to the MoEF&CC on 03.08.2000.	
	<b>Typical coal analysis data on 19.08.2015</b>					
	Sl. No.	Area	%Ash	%Fixed carbon	% Volatile	% Moisture
	1.	Stage-1 & 2	38.67	24.08	24.13	13.11
		Stage-3	39.01	23.9	24.06	13.02
23.	Only washed coal shall be used for the project. Fuel; analysis of the washed coal so used shall be carried out every month and records maintained. The analysis report shall form part of the six monthly report to be submitted to this Ministry.				The condition has been amended and vide letter dated 14.12.1998 of MoEF&CC permission accorded for the use of raw coal.	

24.	Reduction in fresh water requirement may be examined taking into account the plant as a combined unit by adopting suitable size of the condenser, flow rate and drift.	PA informed that reduction in fresh water requirement was examined and the condition being complied with. The closed cooling water system along with dedicated treatment system for CW water enabled the COC increase from 2.0 to 3.5, which has reduced the water requirement. Blow down of CW system is used for equipment cooling and service water purpose before joining plant effluent. Water flow meters are being provided.
25.	Separate funds should be allocated for implementation of environment protection measures along with item wise breakup. These costs should be included as part of the project cost. The funds earmarked for the environmental protection measures should not be diverted for other purposes and year wise expenditure should be reported to this Ministry.	Separate funds on environmental protection measures have not been maintained. PA assured that the funds so provided shall not be diverted for any other purposes.
26.	Regional Office of this Ministry at Bangalore will monitor the implementation of above conditions.	Regional Office of this Ministry at Chennai will monitor the implementation of above conditions.
27.	The project authorities shall submit to this Ministry a half yearly report on the implementation of the stipulate conditions and environmental safeguards.	<b>Partly complied.</b> PA submitted hard copy of six monthly compliance report to the MoEF&CC. <b>Soft copy of the six monthly compliance report has not been submitted to the RO of MoEF&amp;CC regularly. Six monthly compliance report needs to be submitted by Project Authority both in hard and soft copies along with monitored data to the Regional Office of MoEF&amp;CC. The same needs to be uploaded on the website of the company and periodically updated.</b>

**Compliance status of the conditions Stipulated in the revalidated Environmental Clearance letter No. J-13011/20/94-IA.II(T) dated 08.11.2000.**

No.	Condition	Status of Compliance
1.	All the stipulations made in our environmental clearance letter dated 25 <sup>th</sup> September, 1995 referred to above should be strictly implemented	All the stipulations made in the environmental clearance letter dated 25 <sup>th</sup> September, 1995 are not completely implemented. Compliance status is separately provided above.
2.	100% fly ash utilization should be ensured by 9 <sup>th</sup> year as per the broad utilization Plan submitted along with NTPC's communication no.CC: ESE: 3100:2000: GEN: 4B dated 3 <sup>rd</sup> August 2000.	<b>Not complied.</b> PA has not achieved 100% ash utilization. As informed by the PA in the year 2014 -2015 the unit has achieved only 64.4% of ash utilization.
3.	The findings of the study on Bio-magnification of heavy metals in the aquatic life due to discharge of liquid effluents into Godavari river should be submitted along with the Management Plan within one year.	<b>Complied.</b> The study was undertaken through M/s. Shriram Institute of Industrial Research, Delhi and the report has been forwarded to MoEF&CC vide letter dated 16.08.2004.



4.	A copy of the Geo-hydrological study under Indo-Dutch collaboration should be submitted along with the plans for necessary corrective measures to avoid leaching of heavy metals from ash pond area to ground water.	A Geo-hydrological study under the Indo-Dutch collaboration has been completed. The report was submitted to MoEF&CC on 2 <sup>nd</sup> June, 1997. However, details of plans for necessary corrective measures to avoid leaching of heavy metals from ash pond area to ground water have not been made available.
5.	Rs.162.38 Crores earmarked for environmental measures should not be diverted for any other activity and provision should be made for additional funds, if required.	PA informed that they have spent more than the earmarked amount. However, no separate account is being maintained under environmental protection measures.

**Observed non-compliances & recommendations for immediate corrective action:**

- (i). Third party monitored AAQ parameters are not conformed to the latest NAAQ standards – **condition no. 6.**
- (ii). Part of the ash pond effluent is being discharged without treatment to the nearby agriculture fields – **condition no. 7.**
- (iii). PA has not achieved 100% Ash utilization plan as stipulated in the **condition no. 13 & condition no. 2 of Clearance letter No. J-13011/20/94-IA.II(T) dated 08.11.2000.**
- (iv). Treatment of effluents and its monitoring needs to be strengthened – **condition no. 7.**
- (v). During ash pond reclamation the condition no. 19 needs to be complied with.
- (vi). Project authority needs to install online monitoring devices for gaseous emission also in addition to the particulate matter - **condition no. 20.**
- (vii). Separate funds on environmental protection measures have not been maintained - **condition no. 25 & condition no. 5 of Clearance letter No. J-13011/20/94-IA.II(T) dated 08.11.2000.**
- (viii). Soft copy of the six monthly compliance report has not been submitted to the RO of MoEF&CC regularly. Six monthly compliance report needs to be submitted by Project Authority both in hard and soft copies along with monitored data to the Regional Office of MoEF&CC. The same needs to be uploaded on the website of the company and periodically updated - **condition no. 27**
- (ix). Treated water is partly utilized for ash handling / ash slurry pumping and partly discharged in to River Godavari. It appears that the unit do not have dedicated pipeline till the discharge point of the river rather the treated water of the unit getting mixed-up with domestic waste water drainages before confluencing into the river Godavari. Necessary corrective action needs to be taken to avoid conflict in near future regarding treatment of effluents by M/s NTPC.

**Details of the Directions issued by the State PCB:**

APPCB vide letter No. 15-RGM/PCB/ZO-HYD/2013-3258 dated 30.12.2013 issued following directions to the industry:

- (i). to install new advanced ESP controls for all fields of stage II UNITS (Unit – 4, 5 & 6) by the end of November, 2014.
- (ii). to install Ammonia Dosing system at the ESP inlet of unit 5 & 6 for improving ash conductivity and ESP efficiency.

- (iii). to take measures for continuous transmission of online stack and ambient air quality monitoring data from the Central Server to APPCB Website by coordinating with NIC.

In response to the above directions of APPCB, a compliance report was submitted by the M/s NTPC Ltd. vide letter No. 09/EMG/A-2/2014 dated 04.04.2014.

**This issues with the approval of Competent Authority vide diary No. 64 dated 01.10.2015**



**(Dr. M.T. Karuppiah)**  
**Scientist – C**