

No. A-11015/02/2016-CPW
Government of India
Ministry of Environment, Forest & Climate Change
(CP Division)

Prithvi Wing, 2nd Floor,
Indira Paryavaran Bhawan, Aliganj,
Jor Bagh Road, New Delhi-110003
Dated – 12th January, 2016

To,

✓ Shri Debadityo Sinha
28/1, Ground Floor,
Govindpuri (Behind Meera Bai Mandir)
Kalkaji, New Delhi-110019

Sub: - Your Online application under RTI act, 2005 – regarding

Sir,

This refers to your aforesaid online application received vide Registration No. MOENF/R/2015/61257 dated 24.11.2015.

2. With regard to para (1) and para (2) of your application, it is to inform that your representation was considered for finalisation of the draft notification on Emission Standards for Thermal Power Plants. The comments received in the aforesaid matter were compiled along with your representation and then put up before a 'Working Group' constituted for examination of comments for finalisation of draft standards.

3. With regard to para (3) and para (4) of your application, the copies of 'File notings' (2 number of pages) and 'Minutes of Meeting' (2 number of pages) are annexed as Annexure 1 & Annexure 2 respectively. A copy of Gazette notification is also annexed as Annexure 3 (5 number of pages) indicating the Emission Standards finalised by the 'Working Group'.

4. The RTI-MIS account of undersigned was opened on 11.01.2016 and hence, the online application is emerged thereafter only. The unintentional delay in replying to your application is regretted.

5. The First Appellate Authority under the RTI Act, 2005 is Dr. Rashid Hasan, Adviser, CP Division, Ministry of Environment, Forest and Climate Change, 2nd Floor, Prithvi Block, Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi-110002.

Yours faithfully,

Enclosure:As above


(Dinesh Raniwal)
Scientist-D & CPIO

Copy to:

1. RTI Cell – w.r.t. his Registration no. MOENF/R/2015/61257 dated 24.11.2015

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Ministry of Environment, Forest & Climate Change
CP Division

Subject: Draft notification on Standards of emission from Coal Based Thermal Power Plants- Minutes of the meeting of working group- regarding

A committee was constituted to examine the comments received in response to the draft notification for Thermal Power Plants:

The Working Group consisting of Dr. Manoranjan Hota, Scientist 'F', CP Division, Shri B. B. Barman, Scientist 'F', IA (Thermal) Division, MoEF&CC and Dr. S. S. Bala, Scientist 'E', CPCB held a meeting on 03.07.2015 to discuss the comments received from various stakeholders on the afore-said draft notification. The list of participants is annexed at Annexure-I. The results of the meeting are as follow:

1. The Working Group examined and discussed the comments received to the draft notification.
2. In order to have an effective assessment, it was reiterated that CPCB makes a compilation of all the comments received in this regard. However, in order to expedite the assessment, the Working Group provided the following input/views:

2.1 Water Consumption limits:

Many comments including from Ministry of Power / NTPC etc. were of the view that it would be difficult to install Cooling Tower (CT) in place of Once Through Cooling (OTC). The Group, however, was of the view that the Thermal Power Units should usually have provisions for additional space for expansion and other ancillary activities. Therefore, the contention of inadequate of space was not acceptable by the Group.

Further, the Group gathered that a TPP requires about 7-10% of area for providing a CT. Therefore, finding space / land to provide CT, as proposed in the draft standards should not pose any problem.

2.2 Particulate Matter:

In order to bring down the Particulate Matter from exiting level to the proposed standards, the Thermal Power Plants (TPPs) are required to install and incorporate Electrostatic Precipitator (ESP). The comments received from stakeholders advocate for no change to the "existing norms" on the plea of space constraint in the existing plants that will entail installation/ renovation by adding Electrostatic Precipitator (ESP). Developers further stated that it would not be economically viable to invest in old plants which will be out living its useful life soon.

The Working Group suggested that CPCB, in collaboration with SPCBs may find out as to how many TPPs have got space problem to retrofit ESP and other Pollution Control equipments in order to reduce the Particulate Matter emission. Ministry of Power was of the view that wherever Environmental Clearance (EC) has been granted based on the existing norms, change should not be made to this condition. Further, the Working Group was of the view that the argument of non-availability of space is not acceptable as while granting Environment Clearance, a condition for providing ESP is stipulated for which the TPP units should have adequate space required for ensuring compliance. Regional office / IA Division may be requested to provide information in this regards.

2.3 SO_x Emission

The comments received from stakeholders suggests, 'no change' to the existing norms on the plea of space constraint in the existing plants required for installation of Flue Gas De-Sulphurization (FGD) system. The Working Group

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was the view that the information on number of TPPs of less than 500 MW and number of TPPs more than 500 MW is not available so as to take a view on whether there should be single standard or dual standards for < 500 MW and > 500 MW TPPs respectively. FGD is required for coal having high sulphur content (e.g imported coal). While granting EC, MoEF&CC stipulates conditions, inter alia, for providing FGD, wherever found necessary. The working group is of the considered view that space requirement for such environmental safeguard measures is miniscule considering the overall space/land requirements for a TPP and, therefore, such alibi was not found reasonable.

2.4 NOx Emission:

Comments received suggests 'no change' to the existing norms on the plea of space constraint in old plants required for installation of de-nitrification system like Selective Catalytic Reduction (SCR) system. With regard to space requirement for installing de-nitrification system, the Group was of the view that this argument may not hold good as, while granting Environment Clearance, one of the conditions is stipulated for providing such system, wherever necessary for which they should have adequate space. The working group is of the considered view that space requirement for such environmental safeguard measures is miniscule considering the overall space/land requirements for a TPP and, therefore, such alibi was not found reasonable.

433/DIR(MH)S
22/7/15

2.5 Mercury:

The Working Group noted that MoEF&CC has undertaken a pilot scale study with CIMFR, Dhanbad under the aegis of UNEP for estimating Mercury in Indian Coal vis-a-vis emission of Mercury in TPPs. Data of the study could indicate the trend of Mercury emission. Therefore, the statement of the Ministry of Power that no data is available for Mercury, seems untrue.

3. With regard to views of Shri R.N. Jindal, Director (CP) for inclusion of Phenol as a parameters for storm water and mercury in effluent & emission, the Group suggested that the standards / limits for these parameters may be developed and a view is this regard may be taken.

433/0.2(DP)
23/7/2015

Conclusion:

The Working Group, after examining the comments, was of the view that the stakeholders appeared to be reluctant to accept the notified draft standards primarily with a plea of space constraints. Ministry of Power, the major stakeholder has also subscribed to these views. While MoEF&CC may not accept this argument, it would be prudent to ask the CPCB / SPCBs to collect relevant information as deliberated in the assessment and thereafter, a final view may be taken.

Submitted please.

Shumika Pant Pathak
Shumika Pant Pathak
SA
21/7/15

DD(R/CP)

Dir (MH)

Rupanjay
21/7/15

Recd on
23/7/15

Div (B&BS) may also see before
it is sent upward

Dir (B&BS) - 1A (Thermal)
Dir (MH)

AH
24/7/15
23/7

Minutes of the 1st Meeting of working group on Draft notification on various Standards of emission from Coal Based Thermal Power Plants

The Working Group consisting of Dr. Manoranjan Hota, Scientist 'F', CP Division, Shri B. B. Barman, Scientist 'F', IA (Thermal) Division, MoEF&CC and Dr. S. S. Bala, Scientist 'E', CPCB held a meeting on 03.06.2015 to discuss the comments received from various stakeholders on the afore-said draft notification. The list of participants is annexed at **Annexure-I**.

1. The Working Group examined and discussed the comments received to the draft notification.

2. In order to have an effective assessment, it was reiterated that CPCB to make compilation of comments. However, in order to expedite the assessment, the Working Group provided the following input/views:

2.1 Water Consumption limits:

Many comments including from Ministry of Power / NTPC etc. were of the view that it would be difficult to install Cooling Tower (CT) in place of Once Through Cooling (OTC). The Group however, was of the view that the Thermal Power Units should usually have provisions for additional space for expansion and other ancillary activities. Therefore, the contention of inadequate of space was not acceptable by the Group.

Further the Group gathered that a TPP requires about 7-10% of area for providing a CT. Therefore, finding space / land to provide CT, as proposed in the draft standards should not pose any problem.

2.2 Particulate Matter:

In order to bring down the Particulate Matter from existing to the proposed standards, the Thermal Power Plants (TPPs) are required to install and incorporate Electrostatic Precipitator (ESP). The comments received from stakeholders advocate for no change to the "existing norms" on the plea of space constraint in the existing plants for installation/ renovation by adding Electrostatic Precipitator (ESP). They further stated that it would not be economically viable to invest in old plants which will be living its life soon.

Working Group suggested that CPCB, in collaboration with SPCBs may find out as to how many TPPs have space problem to retrofit ESP and other Pollution Control equipments in order to reduce the Particulate Matter emission. Ministry of Power was of the view that wherever Environmental Clearance (EC) has been granted based on the existing norms, no change should be made to this condition. Further, the Working Group was of the view that the argument of non-availability of space is not acceptable as while granting Environment Clearance, a condition for providing ESP is stipulated for which the TPP units should have adequate space. Regional office / IA Division may be requested to provide information in this regards.

2.3 SOx Emission

The comments received from stakeholders proposed for no change to the existing norms on the plea of space constraint in the existing plants for installation of Flue Gas De-Sulphurization (FGD) system. The Working Group was the view that the information on numbers of TPPs of less than 500 MW and numbers of TPPs more than 500 MW is not available so as to take a view on whether there should be one standard or two standards for < 500 MW and > 500 MW TPPs. FGD is required for coal having high sulphur content (e.g imported coal). While granting EC, MoEF&CC stipulates a condition for providing FGD, wherever necessary.

2.4 NOx Emission:

Comments received suggested for no change to the existing norms on the plea of space constraint in old plants for installation of de-nitrification system like Selective Catalytic Reduction (SCR) system. With regard to space requirement for installing de-nitrification system, the Group was of the view that this argument may not be acceptable as while granting Environment Clearance, a condition is stipulated for providing such system wherever necessary for which they should have adequate space.

2.5 Mercury:

The Working Group noted that MoEF&CC has under taken a pilot study with CIMFR, Dhanbad under the aegis of UNEP for estimating Mercury in Indian Coal vis-a-vis emission of Mercury in TPPs. This data could indicate the trend of Mercury emission. Therefore the statement of the Ministry of Power is not valid that no data is available for Mercury.

3. With regard to views of Shri R.N. Jindal, Director (CP) for inclusion of parameters viz. phenol etc. for storm water and mercury in effluent & emission, the Group suggested that the standards / limits for these parameters may be developed and a view is this regard may be taken.

4. The Working Group, after examining the comments was of the view that the stakeholders are no accepting the notified standards primarily due to space constraints. Ministry of Power, the major stakeholders has also subscribes to these views. While MoEF&CC may not accept this argument to ask the CPCB / SPCBs to collect the relevant information as deliberated in the assessment and thereafter a view may be taken, if agreed to.



भारत का राजपत्र

The Gazette of India

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 7 दिसम्बर, 2015

का.आ. 3305(अ).—केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :—

1.(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) संशोधन नियम, 2015 है।

(2) वे उनके राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 में,—

(क) क्रम सं. 5 और उसमें संदर्भित प्रविष्टियों के स्थान पर निम्नलिखित क्रम सं. और प्रविष्टियां अंतःस्थापित की जाएंगी, अर्थात् :—

| क्रम सं. | उद्योग | मापदंड | मानक |
|----------|--|----------|--|
| 1 | 2 | 3 | 4 |
| 5क | ताप विद्युत संयंत्र (जल उपभोग सीमा) | जल उपभोग | 1. एक बार शीतलन (ओडीसी) के माध्यम से सभी संयंत्र शीतलन टावरों (सीटी) को प्रतिष्ठापित करेंगे और अधिसूचना की तारीख से दो वर्ष की अवधि के भीतर अधिकतम 3.5m ³ /MWh के विनिर्दिष्ट जल उपभोग को हासिल करेंगे। |

| | | | |
|--|--|--|--|
| | | | <p>II. सभी विद्यमान सीटी-आधारित संयंत्र 3.5m³/MWh इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर अधिकतम 3.5m³/MWh तक के विनिर्दिष्ट जल उपभोग को कम करेंगे।</p> <p>III. जनवरी, 2017 के पश्चात् प्रतिष्ठापित किए जाने वाले नए संयंत्र अधिकतम 2.5 m³/MWh तक के विनिर्दिष्ट जल उपभोग को पूरा करेंगे और शून्य जल दुर्व्यय को हासिल करेंगे।</p> |
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(ख) क्रम सं. 25 और उससे संबंधित प्रविष्टियों के पश्चात् निम्नलिखित क्रम सं. और प्रविष्टियां रखी जाएंगी, अर्थात् :—

| क्रम सं. | उद्योग | मापदंड | मानक |
|----------|--------|---|--|
| 1 | 2 | 3 | 4 |
| | | विवक्त पदार्थ | 100 mg/Nm ³ |
| | | सल्फर डायोक्साइड (SO ₂) | 600 mg/Nm ³ (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयों) 200 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयों) |
| | | नाइट्रोजन के आक्साइड (NOx) | 300 mg/Nm ³ |
| | | पारा (Hg) | 0.03 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयों) |
| | | 1 जनवरी, 2003 के पश्चात् 31 दिसंबर, 2016 तक प्रतिष्ठापित टीपीपी (इकाईयों) | |
| | | विवक्त पदार्थ | 50 mg/Nm ³ |
| | | सल्फर डायोक्साइड (SO ₂) | 600 mg/Nm ³ (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयों) 200 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयों) |
| | | नाइट्रोजन के आक्साइड (NOx) | 300 mg/Nm ³ |
| | | पारा (Hg) | 0.03 mg/Nm ³ |
| | | 1 जनवरी, 2017 से प्रतिष्ठापित टीपीपी (इकाईयों) | |
| | | विवक्त पदार्थ | 30 mg/Nm ³ |
| | | सल्फर डायोक्साइड (SO ₂) | 100 mg/Nm ³ |
| | | नाइट्रोजन के आक्साइड | 100 mg/Nm ³ |

| | | |
|--|------------|-------------------------|
| | (NOx) | |
| | पारा (Hg) | 0.03 mg/Nm ³ |

* टीपीपी (इकाईयां) इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर परिष्कृतियों को पूरा करेंगी।

** इसके अंतर्गत सभी टीपीपी (इकाईयां) हैं, जिन्हें पर्यावरणीय निकासी प्रदान की गई है और संनिर्माण के अधीन है।

[फा. सं. वसू-15017/40/2007-सीपीडब्ल्यू]

डा. राशिद हुसैन, सलाहकार

विषय :- मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii) में सं. का.आ. 844(अ) 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका पश्चानवर्ती का.आ. 433(अ) तारीख 18 अप्रैल, 1987 ; मा.का.नि. 176(अ) तारीख 2 अप्रैल, 1996; मा.का.नि. 97 (अ), तारीख 18 फरवरी, 2009 ; मा.का.नि. 149(अ) तारीख 4 मार्च, 2009 ; मा.का.नि. 543(अ) तारीख 22 जुलाई, 2009 ; मा.का.नि. 739(अ) तारीख 9 सितम्बर, 2010 ; मा.का.नि. 809(अ) तारीख 4 अक्टूबर, 2010, मा.का.नि. 215(अ) तारीख 15 मार्च, 2011 ; मा.का.नि. 221(अ) तारीख 18 मार्च, 2011 ; मा.का.नि. 354(अ) तारीख 2 मई, 2011 ; मा.का.नि. 424(अ) तारीख 1 जून, 2011 ; मा.का.नि. 446(अ) तारीख 13 जून, 2011 ; मा.का.नि. 152(अ) तारीख 16 मार्च, 2012 ; मा.का.नि. 266(अ) तारीख 30 मार्च, 2012 ; मा.का.नि. 277(अ) तारीख 31 मार्च, 2012 ; मा.का.नि. 820(अ) तारीख 9 नवम्बर, 2012 ; मा.का.नि. 176(अ) तारीख 18 मार्च, 2013 ; मा.का.नि. 535(अ) तारीख 7 अगस्त, 2013 ; मा.का.नि. 771(अ) तारीख 11 दिसम्बर, 2013 ; मा.का.नि. 2(अ) तारीख 2 जनवरी, 2014 ; मा.का.नि. 229(अ) तारीख 28 मार्च, 2014 ; मा.का.नि. 232(अ) तारीख 31 मार्च, 2014 ; मा.का.नि. 325(अ) तारीख 7 मई, 2014, मा.का.नि. 612(अ) तारीख 25 अगस्त, 2014 और अन्तिम संशोधन मा.का.नि. 789(अ) तारीख 11 नवम्बर, 2014 किया गया था।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 7th December, 2015

S.O. 3305(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2015.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in Schedule - I, -

(a) after serial number 5 and entries relating thereto, the following serial number and entries shall be inserted, namely:—

| Sr. No. | Industry | Parameter | Standards |
|---------|---|-------------------|--|
| 1 | 2 | 3 | 4 |
| 5A. | Thermal Power Plant (Water consumption limit) | Water consumption | I. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption upto maximum of 3.5m ³ /MWh within a period |

Annexure-3
Page-4

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|--|--|--|--|
| | | | <p>of two years from the date of publication of this notification.</p> <p>II. All existing CT-based plants reduce specific water consumption upto maximum of 3.5m³/MWh within a period of two years from the date of publication of this notification.</p> <p>III. New plants to be installed after 1st January, 2017 shall have to meet specific water consumption upto maximum of 2.5 m³/MWh and achieve zero waste water discharged¹.</p> |
|--|--|--|--|

(b) for serial number 25, and the entries related thereto, the following serial number and entries shall be substituted, namely:-

| Sr. No. | Industry | Parameter | Standards |
|---------|---------------------|--|---|
| 1 | 2 | 3 | 4 |
| 25. | Thermal Power Plant | TPPs (units) installed before 31 st December, 2003* | |
| | | Particulate Matter | 100 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 600 mg/Nm ³ (Units Smaller than 500MW capacity units) 200 mg/Nm ³ (for units having capacity of 500MW and above) |
| | | Oxides of Nitrogen (NO _x) | 600 mg/Nm ³ |
| | | Mercury (Hg) | 0.03 mg/Nm ³ (for units having capacity or 500MW and above) |
| | | TPPs (units) installed after 1 st January, 2003, upto 31 st December, 2016* | |
| | | Particulate Matter | 50 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 600 mg/Nm ³ (Units Smaller than 500MW capacity units) 200 mg/Nm ³ (for units having capacity of 500MW and above) |
| | | Oxides of Nitrogen (NO _x) | 500 mg/Nm ³ |
| | | Mercury (Hg) | 0.03 mg/Nm ³ |
| | | TPPs (units) to be installed from 1 st January, 2017** | |
| | | Particulate Matter | 30 mg/Nm ³ |
| | | Sulphur Dioxide (SO ₂) | 100 mg/Nm ³ |
| | | Oxides of Nitrogen (NO _x) | 100 mg/Nm ³ |
| | | Mercury (Hg) | 0.03 mg/Nm ³ |

*TPPs (units) shall meet the limits within two years from date of publication of this notification.

**Includes all the TPPs (units) which have been accorded environmental clearance and are under construction.

[F. No. Q-15017/40/2007-CPW]

Dr. RASHID HASAN, Advisor

Note: - The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide number S.O. 844(E), dated the 19th November, 1986 and subsequently amended vide the following notifications:—
S.O. 433(E), dated 18th April 1987; G.S.R. 176(E) dated 2nd April, 1996; G.S.R. 97(E), dated the 18th February, 2009; G.S.R. 149(E), dated the 4th March, 2009; G.S.R. 543(E), dated 22nd July, 2009; G.S.R. 739(E), dated the 9th September, 2010; G.S.R. 809(E), dated, the 4th October, 2010; G.S.R. 215(E), dated the 15th March, 2011; G.S.R. 221(E), dated the 18th March, 2011; G.S.R. 354(E), dated the 2nd May, 2011; G.S.R. 424(E), dated the 1st June, 2011; G.S.R. 446(E), dated the 13th June, 2011; G.S.R. 152(E), dated the 16th March, 2012; G.S.R. 265(E), dated the 30th March, 2012; and G.S.R. 277(E), dated the 31st March, 2012; and G.S.R. 820(E), dated the 9th November, 2012; G.S.R. 176(E), dated the 18th March, 2013; G.S.R. 535(E), dated the 7th August, 2013; G.S.R. 771(E), dated the 11th December, 2013; G.S.R. 2(E), dated the 2nd January, 2014; G.S.R. 229(E), dated the 28th March, 2014; G.S.R. 232(E), dated the 31st March, 2014; G.S.R. 325(E), dated the 07th May, 2014; G.S.R. 612(E), dated the 25th August, 2014 and lastly amended vide notification G.S.R. 789(E), dated 11th November, 2014.