

Manthan Adhyayan Kendra

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12 December 2017

MS, CPCB,

and

H. Kharkwal,
Scientist D,
Ministry of Environment, Forests and Climate Change,
Government of India,
New Delhi.

Subject: Comments on the Draft Notification Environment (Protection) Amendment Rules, 2017, regarding Water Consumption and Emissions from Coal Thermal Power Plants

Ref: Notification of the MoEFCC dated 16 Oct 2017

Dear Sir/Madam,

We write to you on behalf of Manthan Adhyayan Kendra, a group studying water and energy issues in the context of equitable, just and sustainable development. In particular, Manthan has been studying in detail issues related to coal and water since last several years. The details about Manthan and the undersigned can be found on our website.

Please find below our comments on the above mentioned proposed amendments to EPA Rules 1986.

Scope of Comments

We have restricted our comments only to the following part of the proposed draft amendment, that is:

“(a) against serial number 5A, in column 4, for item III, the following item shall be substituted, namely:—

“III. Specific water consumption shall not exceed maximum of 3.0 m³/MWh for new plants installed after the 1st January, 2017 and these plants shall also achieve zero waste water discharge.”;

Amendment is a Dilution of Norms

1. This amendment clearly represents a dilution of the limit on the specific water consumption for plants installed after 1 Jan 2017 from 2.5 m³/MWh to 3.0 m³/MWh.

Urge that the Amendment and Dilution of Norms Must be Dropped

2. We would strongly urge that there is no case whatsoever for this dilution of norms, and this section should be deleted from the proposed amendment.
3. That is, the maximum allowed specific water consumption for plants installed after 1 Jan 2017 should remain at 2.5 m³/MWh.
4. The proposed amendment is problematic both, in terms of the procedure adopted, and in terms of the impacts that it will have.

Proposed Amendment will Have Adverse Impacts

5. In terms of impacts, assuming that a new thermal power installed after 1 Jan 2017 would have a plant load factor of 80%, the dilution means that every 1000 MW plant would end up using an *additional* 3.5 million cubic meters of water as compared to if it had to adhere to the existing norms.
6. An indication of how big this impact is that this amount of water could be used to irrigate around 700 ha of land. Given that many of the power plants are in areas already facing water scarcity issues, this is a huge impact. Note that this is not the impact of the total water consumed by the plant, which would be much higher. This is just the impact of the additional water that the plant would consume in case the norms are diluted.
7. This is a clear, significant, adverse impact on the local communities, with likely impact on more than a thousand households, given the land holding sizes in India.
8. This dilution in the water norms will also encourage violations of the ash utilisation requirement. Currently, the regulations require 100% utilisation of fly ash within four years of plant commissioning. This is being violated by large number of plants, who either continue to dispose ash in a wet slurry form in ash ponds, or discharge the slurry into local water bodies, or just dump the ash in dry form in the surroundings. Such "disposal" of ash has significant impacts on the environment and the health of local communities.

In case the plants are required to follow the specific water use norms of maximum of 2.5 m³/MWh, they have less flexibility to use water for disposal of ash, creating additional deterrent to the violations of the ash use/disposal regulations.

On the other hand, allowing additional water use through the proposed dilution of water use norms is an open encouragement for the plants to continue – and even increase – the practise of disposing ash in the wet slurry form either into ash ponds or into local water bodies. In a way, this will facilitate violations of the ash utilisation norms.

9. Given the fact that as per CEA directions, all coal based thermal power plants to be installed after March 2017 have to use super-critical technology, there does not seem to be any reason to dilute the water use norms. Supercritical technology, being more efficient thermally, reduces cooling water use significantly. This raises the apprehension that the dilution in water use norms is being undertaken to allow higher use of water in ash disposal, as any higher use in cooling is

unwarranted. In fact, water needed for cooling should be going down significantly in the new plants.

Procedure to Amend the Norms is Flawed

10. Procedurally, the manner in which the amendment is being proposed has serious flaws. First of all, there are no reasons or justifications provided for the proposed dilution in the water use norms. This makes the proposed amendment *ad hoc*, arbitrary and unjustified.
11. Such unjustified amendment also creates an impression that there was little application of mind when the norms were first formulated, that is, in Dec. 2015. Even at that time, we had in our comments suggested that justifications and reasons should be given for the norms, which were not given.
12. Another, and more problematic and damaging impression that is conveyed by such unjustified dilution is that the MoEFCC is not serious about implementing the rules it creates. It gives an impression to industry that ultimately, the MoEFCC can be pressurised into diluting norms, and that the MoEFCC will succumb and not insist on implementation of norms.

Larger Comment on the Overall Process of Setting Environmental Norms

13. A larger issue is that for all the above reasons, the MoEFCC should have a standard, approved and publicly known protocol for laying down various norms and standards through a transparent and participatory process that provides proper reasoning and justification, backed by in-depth studies. The need for such a process, its absence currently, implications of the lack of such a procedure and some international experiences of laying down standards and norms through such processes are outlined in a paper by the undersigned. The paper, *Setting Environmental Standards : Comparing Processes in Thermal Power Plants in India, US, and EU* , in Economic and Political Weekly, Vol. 52, Issue No. 19, 13 May, 2017, (<http://www.epw.in/journal/2017/19/special-articles/setting-environmental-standards.html>), we urge should be taken as a larger comment on this Draft Amendment and also a suggestion for the MoEFCC for its entire process of setting standards and norms.

We will be happy to provide any further inputs and/or respond to any queries in the matter.

Thanking you,

Sincerely,

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Shripad Dharmadhikary,

Manthan Adhyayan Kendra