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stopppwatch

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INSIDE THIS ISSUE:

<i>India News</i>	2
<i>World News</i>	3
<i>Statistics</i>	4
<i>Regulations & Cases</i>	4
<i>Publications</i>	4
<i>Miscellaneous</i>	4

Relevant Websites & Contacts

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CAG'S COMMENTS ON THE DRAFT ENVIRONMENT PROTECTION AMENDMENT RULES 2015

5.a Water Consumption Limits— CAG's Comments

a) TPS are coastal based and non coastal based. The specific water consumption norm currently stipulated in the notification are for non coastal based. For coastal based where many TPS are coming up, main cooling water will be met from "Once-through" sea water, and. The norm should also reflect for coastal based TPS.

b) The key water requirement is for cooling system. For wet cooling, the specific water consumption range is 3.5 to 4 m³/hr.MW and for dry cooling power plants will be more than 0.55 m³/hr.MW. However a dry cooling plant will consume more specific coal due to losses associated with such system. So while prescribing such specific water consumption norm, technology driven "Cooling system", this may kindly be stipulated.

c) Zero Liquid Discharge (ZLD) stipulation has become the order of the day, whether it is viable or not. By stipulating such impractical norms, it may be noted that Policy/Regulatory body is coming out of potential "Community threat" but really not hand-holding the project proponent with reality norm.

It is requested that Ministry refer to the report published by Central Electricity Authority (CEA), specifically for TPS (dated Jan 2012), on possible way of achieving specific water consumption reduction.

d) There was also a manual circulated by CPCB for entire Ganga Basin Polluters for compliance towards ZLD.

It is requested that the Ministry may monitor the level of stipulation, specially when administered water prices are far below the "Recycling cost".

25. Emission Limits

As on date, there is no measured data for the Hg emission level for the operating power plants, from Industry or from State Pollution Control Boards. In the absence of such data, how the Industry will plan any program for achieving the norm? If there is no need of any APC devices, then what will be the use of prescribing such norm. Under CREP, it was the responsibility of Central Electricity Authority (CEA) to arrive at guideline for Hg Management. CREP norm for Particulate Matter has been 100 mg/Nm³. The Ministry may kindly take into consideration any data from CEA to get an idea as to how many TPPs are conforming to an emission level of 100 mg/Nm³.

(Continued on page 2)

TPP Category	Draft PM Norm (mg/Nm ³)	Draft SO ₂ Norm (mg/Nm ³)	Draft NO _x Norm (mg/Nm ³)	Draft Hg Norm (mg/Nm ³)	Remarks
TPP installed before Dec 2003	100	600 (for < 500 MW) 200 (>500 MW)	600	- 0.03	Existing TPP are stipulated with PM norm of 150 mg/ Nm ³ and not for others. How will they retrofit APC?
TPP after 2003 to Dec 2006	50	- 200 (> 500 MW)	300	0.03	Same as above; Why no SO₂ norm for < 500 MW?
TPP to be installed from Jan 1, 2017	30	100	100	0.03	All existing proposals & new proposal to be examined by MOEF need to stipulate this; Are DPR Consultants familiar and APC suppliers capable?

CAG'S COMMENTS ON THE DRAFT ENVIRONMENT PROTECTION AMENDMENT RULES 2015 (CONTD)

In order to achieve a particulate emission norm level of 50 or 30 mg/Nm³, a combination of Electrostatic Precipitator and bag Filter or bag Filter systems are required. These will add-on to high pressure drop across APC systems, thereby higher Auxiliary Power Consumption.

It is desirable to get a feedback from "Bureau of Energy Efficiency" with Energy Performance Index stipulation, rather than stipulating non achievable norms.

It is possible that existing TPPs may not be able to achieve the above stipulated norm. The Ministry may look into any directive by CPCB and SPCB to existing Power Plants, if in place, or give suitable regulations, for compliance with Performance Bank Guarantee.

c. Comments on Heavy Metal Contents & Mercury in Coal

The latest Fly Ash Notification stipulates no difference in "Fly Ash" and "Bed Ash", which means entire ash must be han-

dled in dry form and utilized 100%. Based on heavy metals contents from the coal, the entire quantity has to reappear in "Ash" only. Based on typical characteristics declared in this EIA, and considering Ni, Pb and Cr alone, the following impact to marine environment could be predicted:

Reported concentration of Ni, Pb and Chromium in Coal is 97.8 ppm, 32 ppm and 41 ppm respectively. Coal consumption for typical power project is 5.88 MTPA. The total heavy metal contribution is 170.8 ppm (mg/Kg Coal). Hence burning of 5.88 MTPA coal will generate 1004.3 Tonne/year of heavy metals (5.88 X 1000000 T/year X 170.8 gm Heavy Metal / Coal divided by 1000000 = 1004.3 TPA Heavy metal. The above heavy metals will be released to these ashes only.

The total ash production is about 1.76 MTPA, accounting 1.41 MTPA as fly ash and 0.35 MTPA as Bed ash. The fly ash and bed ash will have equal

level of heavy metals. The combined heavy metal concentration will be 712 mg/Kg Ash.

Indian coal ash has an average mercury concentration of 0.53 mg/kg, based on measurements from a few selected power plants. The levels in Indian coal are high in comparison to other countries. Hence burning of 5.88 MTPA coal will generate 3.1164 Tonne/year of Mercury (5.88 MTPA X 0.53 gram Hg/T = 3.1164 TPA Mercury).

The entire quantity will reappear in ash only. The ash generation is 1.76 MTPA.

Thus the Hg concentration in ash will be 1.771 mg/Kg (3.1164 X 1000/1.76 = 1.771 mg/Kg).

This kind of impact has not been considered in the EIA report, which is sensitive for marine ecology for biomagnification. This may be looked into by the Ministry.

(concluded)

Close your curtains and shut your windows on sunny days to keep the sunlight from heating your home.

INDIA POWER CORPORATION TO COMMISSION HALDIA PROJECT IN SEPTEMBER 2015

India Power Corporation plans to start commercial generation at its 450 mw thermal power plant in Haldia in September.

The company is setting up three units of 150 mw each and the first one is expected to start commercial generation by September 30, the company said. The second and third units are slated to be commissioned three months and six months hence, respectively.

"The project has already obtained all requisite clearances including environmental clearance, consent for establishment, water allocation and coal linkage. Boundary wall has been completed, and the intake

pump house and the pipeline are on the verge of completion," the company said in a statement.

Construction activities are in full swing. Boiler drum lifting, one of the major milestones, was achieved on December 4, 2014 for Unit I and February 23, 2015 for Unit II.

Companies working on the project include Bharat Heavy Electricals, Simplex, ABB, Scorpio, Energo, Paharpur, Ramky, WPIL, Raunaq and Honeywell.

Power generated from the plant shall be evacuated through West Bengal State Electricity Transmission Company's

(WBSETCL) 220 KV substation in Haldia.

The project has been designed with advanced technologies to reduce environmental impact and optimise project cost. One such technology is over-the-ground coal mixing, to maintain the calorific value of the fuel. Another innovation is the controlling of the entire system on the same platform for better efficiency of the power plant, the company said.

Also, fly ash generated from the plant will be used to manufacture cement, thereby reducing the environmental impact, it said. ([Economic Times](#), May 18, 2015)

EU AGREES 'LANDMARK' CARBON MARKET DEAL

A deal to claw back hundreds of millions of surplus allowances from Europe's emissions trading system (ETS) has been hailed as a watershed by environmentalists, MEPs and renewable industry groups.

Nearly half of the continent's emissions are covered by the ETS, the world's largest carbon market, which sets a cap on CO2 output and forces firms to buy or sell allowances to stay within its boundaries.

Recession and lavish handouts to industry have contributed to a glut of around 2bn allowances but a new market reserve will now start removing roughly the same amount from the market in 2019, as the Guardian reported in February.

Damien Morris, the policy chief for Sandbag, an environmental NGO, welcomed the agreement as a "landmark" that marked "a huge turning point for Europe's flagship climate policy".

"After a decade of what seemed like terminal decline, this enhanced stability reserve has the potential to inject new life into the carbon market," he said.

But with another 2.2bn of surplus allowances likely to accrue by 2020, Sandbag says that attention should now switch to tightening the market's cap as quickly as possible.

The deal was agreed in 'trilogue' negotiations between the EU's parliament, commission and member states after wealthier EU countries agreed to commit more allowances to the reserve than poorer ones.

The environment spokesman for the Liberal group in the European parliament, Gerben-Jan Gerbrandy described it as "a welcome result that will help put the EU's climate policies back on track".

The Green party was more guarded, warning that EU cli-



A passenger plane flies through aircraft contrails in the skies near Heathrow airport in London. Photograph: Toby Melville/Reuters

mate policy would grind to a standstill without a solution to the ETS's structural problems.

"This agreement is a band aid to address the massive oversupply of emissions permits, which is totally undermining the EU carbon market," said the party's climate change spokesperson Bas Eickhout. "Nobody should be deluded that this addresses the more fundamental problems with the system. The debate must shift to permanently fixing the ETS and this must now be a priority."

The reserve will work by removing an estimated 1.5-2bn surplus carbon allowances in total, with 610m of them being fast-tracked directly into the reserve. Up to 100m carbon credits will automatically be released back onto the market when carbon prices are 'short'.

But a proposal to allow hundreds of millions more allowances to trickle back into circulation by 2030 did not make it into the final text. Around 50m allowances may be put into an innovation fund to help industry.

The reserve's 2019 kick-off will have disappointed the UK and Germany, which favoured an earlier 2017 start date. But reactions from market analysts were broadly supportive.

Sara Deblock, the European policy director of the International Emissions Trading Asso-

ciation said that the move marked "another step to restoring the credibility of the EU ETS".

Allowance prices inched higher on news of the deal but, at around €7.50 (£5.60), are still far too low to encourage fuel switching or investment in renewables.

Ivan Pineda, a spokesman for the European Wind Energy Association said that the result had been "pleasing" but that "much more comprehensive reform is needed in order for this instrument to provide a meaningful signal to investors."

While Europe has pioneered carbon trading as a way of reducing emissions, nearly 40 countries are enacting similar schemes with analysts keenly watching developments in South Korea and China.

Regions such as California, Quebec and Ontario have also rung the bell on their own carbon markets and the EU is close to an emissions trading pact with Switzerland, although a report by Carbon Market Watch earlier this week warned that doing so could limit emissions abatement and Hoover up public funds.

The new ETS reform is now expected to be rubber-stamped by the European parliament by July, and by the European council shortly after. ([Guardian](#), May 6 2015)

Nearly half of the EU emissions are covered by the ETS, the world's largest carbon market, which sets a cap on CO2 output and forces firms to buy or sell allowances to stay within its boundaries.

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Established in 1985, Citizen consumer and civic Action Group (CAG) is an advocacy and campaigning group that works towards protecting citizens rights in consumer and environmental issues and promotes good governance processes including transparency, accountability and participatory decision-making.

PRIMARY SOURCES OF GREENHOUSE GAS EMISSIONS IN THE UNITED STATES ([2013](#))

Electricity production (31% of 2013 greenhouse gas emissions) - Approximately 67% of our electricity comes from burning fossil fuels, mostly coal and natural gas.

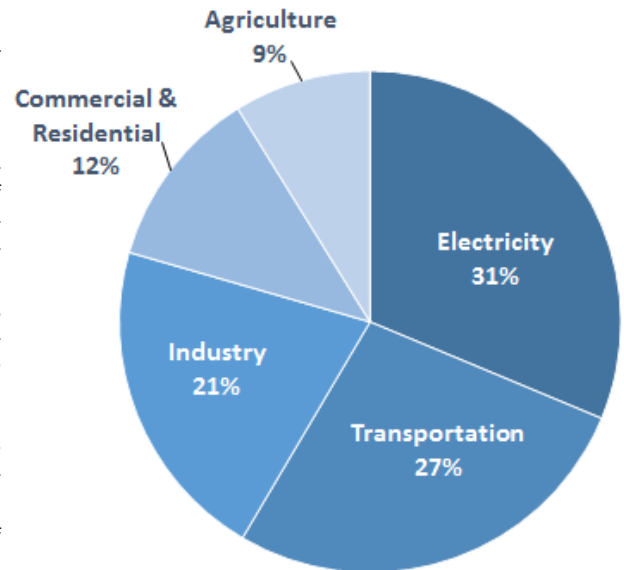
Transportation (27% of 2013 greenhouse gas emissions) - Over 90% of the fuel used for transportation is petroleum based, which includes gasoline and diesel.

Industry (21% of 2013 greenhouse gas emissions) - Greenhouse gas emissions from industry primarily come from burning fossil fuels for energy as well as greenhouse gas emissions from certain chemical reactions necessary to produce goods from raw materials.

Commercial and Residential (12% of 2013 greenhouse gas emissions) - .

Agriculture (9% of 2013 greenhouse gas emissions).

Land Use and Forestry (offset of 13% of 2013 greenhouse gas emissions) - Land areas can act as a sink (absorbing CO₂ from the atmosphere) or a source of greenhouse gas emissions.



REGULATIONS AND CASES

- *Okay and others v. Turkey*, 36220/97 [2005] ECHR 476 (12 July 2005). Click [here](#)
- Ministry of Environment, Forests and Climate Change, Draft Environment Protection Amendment Rules 2015, May 2015. click [here](#)

PUBLICATIONS

- UNEP, Climate Commitments of Subnational Actors and Business: A Quantitative Assessment of their Emission Reduction Impact, 2015. click [here](#)
- IEA, Tracking Clean Energy Progress 2015, 2015. click [here](#)

MISCELLANEOUS

- CEM Bangladesh Off-Grid Appliance and Clean Energy System Industry Networking Event, Dhaka, Bangladesh, 31 July - 1 August 2015. click [here](#)
- Climate and Sustainable Energy Finance Summer Academy 2015, Frankfurt, Hessen, Germany 19 July - 24 July 2015. click [here](#)