

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 2296**  
TO BE ANSWERED ON 10.03.2016

**PROCESSING OF WASTE WATER FOR POWER PLANTS**

2296. SHRIMATI RAKSHATAI KHADSE:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) Whether the Government proposes to process and convert the waste water generated particularly in urban areas into usable water (need not be potable) which can be used by power plants like NTPC; if so, the details thereof;
- (b) Whether the Government has framed/proposes to frame any norms in this regard; and
- (c) If so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR POWER, COAL & NEW AND RENEWABLE ENERGY (INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

**(a):** Yes Madam, as per clause 6.2(5) of the revised Tariff Policy notified on 28.01.2016 by the Ministry of Power, Government of India, the thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of municipality/local bodies / similar organization shall in the order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as a pass through in the tariff. Such thermal plants will also ensure back-up source of water to meet their requirement in the event of shortage of supply by the sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plant. The shutdown of the sewage treatment plant will be taken in consultation with the developer of the power plant.

**(b)&(c):** The Manual on Sewerage and Sewage Treatment Systems, published by the Ministry of Urban Development in 2013, recommends norms/quality of treated sewage for various specified activities including industrial use. The typical guidelines for cooling water quality, as per the Manual, are given at Annexure.

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**Annexure referred to in reply to parts (b)&(c) of Lok Sabha Unstarred Question  
No. 2296 for 10.03.2016**

**Table 7.15 of the Manual on Sewerage and Sewage Treatment Systems for Cooling  
Water Quality Guidelines**

S. No.	Parameter/Condition	Recommended Value
<b>(A) In make-up-water</b>		
1	pH	6.8-7.0 (variation less than 0.6 units in 8 hours)
2	Average TDS value (with variation +25% permissible on 8 hours average)	Cycles of concentration in re-circulating water
	3,000 mg/l	2.0
	1,000 mg/l	3.5
	500 mg/l	6.0
3	Oil and grease	Absent
4	BOD (5 day, 20°C)	Less than 50 mg/l
5	Chlorides (Cl)	Less than 175 mg/l
6	Ammonia	No appreciable amount
7	Caustic alkalinity	Absent
8	Methyl orange alkalinity (as CaCO <sub>3</sub> )	Less than 200 mg/l
<b>(B) In re-circulating water</b>		
9	Silica (As SiO <sub>2</sub> )	Less than 150 mg/l
10	Phosphates, sulphates	Not to exceed solubility limit than 1 minutes after 10 seconds of vigorous shaking of re-circulating water
11	Alkyl Benzene Sulphonate (ABS)	Foam not to persist more than 1 minute after 10 seconds of vigorous shaking of re-circulating water
12	Langelier index at skin temperature of heat exchange surface	0.5±0.1
13	Ryzner Stability Index	6.0 to 7.0