

**MINISTRY OF ENVIRONMENT AND FORESTS  
NOTIFICATION**

**New Delhi, the 30<sup>th</sup> August, 2005**

**G.S.R.546 (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) Third Amendment Rules, 2005.
- (2) They shall come into force on the date of their publication in the Official Gazette or otherwise as mentioned.
2. In the Environment (Protection) Rules, 1986, in Schedule I,-
  - (i) in serial number 14 relating to '**Small Pulp and Paper Industry**', in columns 3 and 4, after the existing entries, the following entries shall be inserted, namely:-

Sr. No.	Industry	Parameter	Standards
1	2	3	4

"Absorbable Organic Halogens (AOX) in effluent discharge	3.00 kg/ton of paper produced with effect from the date of publication of this notification.
	2.00 kg/ton of paper produced with effect from the 1 <sup>st</sup> day of March, 2006.

**Explanation.-** These standards shall apply to all small scale Pulp and Paper Mills having capacity below 24,000 MT per annum.";

(ii) in serial number 53 relating to '**Large Pulp & Paper News Print/Rayon Grade Plants of capacity above 24,000 MT/Annum**'-

- (a) in column 2, for the words, figures and letters " capacity above 24,000 MT/Annum", the words, figures and letters "capacity above 24,000 MT per annum" shall be substituted;

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- (b) in columns 3 and 4, for " TOCL 2.0 kg/ton of product", the following shall be substituted, namely:-

1	2	3	4
		"Absorbable Organic Halogens (AOX) in effluent discharge	1.5 kg/ton of product with effect from the date of publication of this notification.
			1.0 kg/ton of product with effect from the 1 <sup>st</sup> day of March, 2008.";

- (iii) in serial number 72 relating to 'Oil Drilling and Gas Extraction Industry' for paragraph C and entries relating thereto, the following shall be substituted, namely:-

" C. **Guidelines for Disposal of Solid Waste, Drill Cutting and Drilling Fluids for Offshore and Onshore Drilling Operation-**

1. Disposal of Drill Cutting and Drilling Fluids for On-shore Installations:
  - (a) Drill Cuttings (DC) originating from on-shore or locations close to shore line and separated from Water Base Mud (WBM) should be properly washed and unusable drilling fluids (DF) such as WBM, Oil Base Mud (OBM), Synthetic Base Mud (SBM) should be disposed off in a well designed pit lined with impervious liner located off-site or on-site. The disposal pit should be provided additionally with leachate collection system.

Design aspects of the impervious waste disposal pit; capping of disposal pit should be informed by the oil industry to State Pollution Control Board (SPCB) at the time of obtaining consent.
  - (b) Use of diesel base mud is prohibited. Only WBM should be used for on-shore oil drilling operations.

Contd.

- (c) In case of any problem due to geological formation for drilling, low toxicity OBM having aromatic content < 1% should be used. If the operators intend to use such OBM to mitigate specific whole problem/ SBM it should be intimated to Ministry of Environment and Forests/State Pollution Control Board.
- (d) The chemical additives used for the preparation of DF should have low toxicity i.e. 96 hr LC<sub>50</sub> > 30,000 mg/l as per mysid toxicity or toxicity test conducted on locally available sensitive sea species. The chemicals used (mainly organic constituents) should be biodegradable.
- (e) DC separated from OBM after washing should have oil content at < 10 gm/kg for disposal into disposal pit.
- (f) The waste pit after it is filled up shall be covered with impervious liner, over which, a thick layer of native soil with proper top slope is provided.
- (g) Low toxicity OBM should be made available at installation during drilling operation.
- (h) Drilling wastewater including DC wash water should be collected in the disposal pit evaporated or treated and should comply with the notified standards for on-shore disposal.
- (i) Barite used in preparation of DF shall not contain Hg > 1 mg/kg & Cd > 3mg/kg.
- (j) Total material acquired for preparation of drill site must be restored after completion of drilling operation leaving no waste material at site. SPCB should be informed about the restoration work.
- (k) In case, environmentally acceptable methods for disposal of drill waste such as (a) injection to a formation through casing annulars, if conditions allow (b) land farming at suitable location (c) bio-remediation (d) incineration or (e) solidification can be considered, in such cases oil industry is required to submit proposal to Ministry of Environment and Forests/State Pollution Control Board (MoEF/SPCB) for approval.

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2. Disposal of Drill Cutting and Drilling Fluids for Off-shore Installations:

- (a) Use of diesel base mud is prohibited. Only WBM is permitted for offshore drilling. If the operator intend to use low toxicity OBM or SBM to mitigate specific hole problems in the formation, it should be intimated to MoEF/SPCB. The low toxicity OBM should have aromatic content < 1%.
- (b) The toxicity of chemical additives used in the DF (WBM or OBM or SBM) should be biodegradable (mainly organic constituents) and should have toxicity of 96 hr LC<sub>50</sub> Value > 30,000 mg /l as per mysid toxicity or toxicity test conducted on locally available sensitive sea species.
- (c) Hexavalent chromium compound should not be used in DF. Alternative chemical in place of chrome lignosulfonate should be used in DF. In case, chrome compound is used, the DF/ DC should not be disposed offshore.
- (d) Bulk discharge of DF in offshore is prohibited except in emergency situations.
- (e) WBM/OBM /SBM should be recycled to a maximum extent. Unusable portion of OBM should not be discharged into sea and shall be brought to on-shore for treatment & disposal in an impervious waste disposal pit.
- (f) Thoroughly washed DC separated from WBM/SBM & unusable portion of WBM/SBM having toxicity of 96 hr LC<sub>50</sub> > 30,000 mg/l shall be discharged off-shore into sea intermittently, at an average rate of 50 bbl/hr/well from a platform so as to have proper dilution & dispersion without any adverse impact on marine environment.
- (g) Drill cutting of any composition should not be discharged in sensitive areas notified by the Ministry of Environment and Forests.

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- (h) In case of specific hole problem, use of OBM will be restricted with zero discharge of DC. Zero discharge would include re-injection of the DC into a suitable formation or to bring to shore for proper disposal. In such a case, use of OBM for re-injection should be recorded and made available to the regulatory agency. Such low toxic OBM having aromatic content < 1% should be made available at the installation.
- (i) In case, DC is associated with high oil content from hydrocarbon bearing formation, then disposal of DC should not have oil content > 10 gm/kg.
- (j) The DC wash water should be treated to confirm limits notified under EPA, before disposal into Sea. The treated effluent should be monitored regularly.
- (k) Discharge of DC from the installation located within 5 km away from shore should ensure that there is no adverse impact on marine Eco-system and on the shore. If, adverse impact is observed, then the industries have to bring the DC on-shore for disposal in an impervious waste disposal pit.
- (l) If any, environmental friendly technology emerges for substitution of DF and disposal technology, it may be brought to the notice of MoEF and regulatory agencies. If the operator desires to adopt such environment friendly technology a prior approval from Ministry of Environment and Forests is required.
- (m) Barite used in preparation of DF shall not contain Hg > 1 mg/kg & Cd > 3 mg/kg.
- (n) Oil drilling operators are required to record daily discharge of DC & DF to offshore and also to monitor daily the effluent quality, and submit the compliance report once in every six-month to Ministry of Environment and Forests.";

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(iv) after serial number 96 and entries relating thereto, the following serial number and entries shall be added at the end, namely:-

1	2	3	4
"97.	<b>Boilers Using Agriculture Waste as Fuel</b>	Step Grate Particulate matter	250 mg / Nm <sup>3</sup>
		Horse Shoe/ Pulsating Particulate matter	500 mg / Nm <sup>3</sup> (12% of CO <sub>2</sub> )
		Spreader stroker Particulate matter	500 mg / Nm <sup>3</sup> (12% of CO <sub>2</sub> );

98. **Guidelines for Pollution Control in Ginning Mills-**

Measures for Noise Control

- (i) Creating separate soundproof enclosures for the fans within the ginning area.
- (ii) Keeping the fans outside the ginning room in separate enclosures.
- (iii) Roller gins may be covered by sound proof enclosures and use of pneumatic feeding of raw cotton while suction of ginned cotton is introduced to considerably reduce the dust pollution level.

Measures for Dust Control

- (i) The fugitive emission can be largely controlled by employing mechanical or pneumatic handling of raw material and ginned material through covered ducts and providing overhead hoods connected to exhaust through ducts and filters; use of lifting platforms for bale formers.
- (ii) The overhead hoods with exhaust arrangement can be provided at:
  - (a) The saw-ginning machine where manual handling to maintain proper feeding in the machine.

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- (b) At the feeding point of the roller ginning machine when manual feeding is carried out.
- (c) At the collection points of ginned cotton from saw ginning condenser”.

(F. No. Q-15017/95/2000-CPW)

**(R. K. VAISH)**  
**JOINT SECRETARY TO THE GOVT. OF INDIA**

**Note :** The principal rules were published in the Gazette of India vide number S.O. 844 (E) dated 19<sup>th</sup> November, 1986 and subsequently amended vide S.O. 433(E) dated 18<sup>th</sup> April, 1987, S.O. 64(E) dated 18<sup>th</sup> January, 1988, S.O. 3(E) dated 3<sup>rd</sup> January, 1989, S.O. 190(E) dated 15<sup>th</sup> March, 1989, G.S.R. 913(E) dated 24<sup>th</sup> October, 1989, S.O. 12(E) dated the 8<sup>th</sup> January, 1990, G.S.R. 742(E) dated the 30<sup>th</sup> August, 1990, S.O. 23(E) dated the 16<sup>th</sup> January, 1991, G.S.R. 93(E) dated the 21<sup>st</sup> February, 1991, G.S.R. 95(E) dated the 12<sup>th</sup> February, 1992, G.S.R. 329(E) dated the 13<sup>th</sup> March, 1992, G.S.R. 475(E) dated the 5<sup>th</sup> May, 1992, G.S.R. 797(E) dated the 1<sup>st</sup> October, 1992, G.S.R. 386(E) dated the 28<sup>th</sup> April, 1993, G.S.R. 422(E) dated the 19<sup>th</sup> May, 1993, G.S.R. 801(E) dated the 31<sup>st</sup> December, 1993, G.S.R. 176(E) dated the 3<sup>rd</sup> April, 1996, G.S.R. 631(E) dated the 31<sup>st</sup> October, 1997, G.S.R. 504(E) dated the 20<sup>th</sup> August, 1998, G.S.R. 7(E) dated the 2<sup>nd</sup> January, 1999, G.S.R. 682(E) dated the 6<sup>th</sup> October, 1999, G.S.R. 742(E) dated the 25<sup>th</sup> September, 2000, G.S.R. 72(E) dated the 6<sup>th</sup> February, 2001, G.S.R. 54(E) dated the 22<sup>nd</sup> January, 2002, G.S.R. 371(E) dated the 17<sup>th</sup> May, 2002, G.S.R. 489(E) dated the 9<sup>th</sup> July, 2002, S.O. 1088(E) dated the 11<sup>th</sup> October, 2002, G.S.R. 849(E) dated the 30<sup>th</sup> December, 2002, G.S.R. 520(E) dated the 1<sup>st</sup> July, 2003 and G.S.R. 92(E) dated the 29<sup>th</sup> January, 2004, G.S.R. 448 (E) dated the 12<sup>th</sup> July, 2004 and Corrigenda G.S.R. 520(E) dated 12<sup>th</sup> August, 2004, G.S.R 272 (E) dated 5<sup>th</sup> May 2005 and G.S.R. 315 (E) dated 16<sup>th</sup> May 2005.