



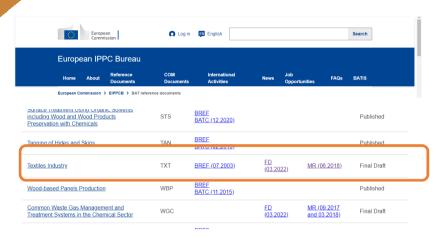
# TXT Bref Stato dei lavori

Fabio Colonna

ARPA Lombardia

IED E IL PROCESSO DI SIVIGLIA- 21 giugno 2022 – ISPRA Roma

## Dove siamo arrivati...

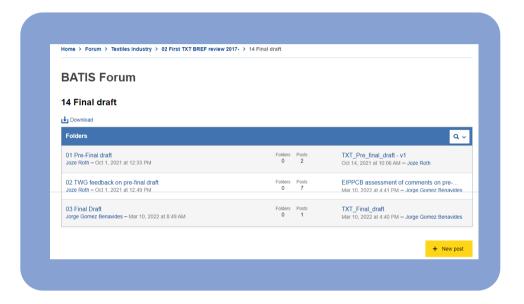


### **COMMENTS**

Posts			Q v
AT comments to pre-final draft	Attachments	Replies	Nov 5, 2021 at 5:32 PM
Gertraud Moser – Nov 5, 2021 at 5:32 PM	1	0	Gertraud Moser
EIPPCB assessment of comments on pre-final draft	Attachments	Replies	Mar 10, 2022 at 4:41 PM
Jorge Gomez Benavides – Mar 10, 2022 at 4:41 PM	1	0	Jorge Gomez Benavides
EURATEX additional information on BAT 18	Attachments	Replies	Jan 21, 2022 at 10:50 AM
Mauro Scalia – Jan 21, 2022 at 10:50 AM	1	0	Mauro Scalia
EURATEX additional information on BAT 37 [ 236, EURATEX, 2021 ]	Attachments	Replies	Nov 5, 2021 at 12:13 PM
Mauro Scalia – Nov 5, 2021 at 12:13 PM	1	0	Mauro Scalia
SE Appendix Table 3-3 page 206	Attachments	Replies	Nov 5, 2021 at 12:29 PM
Terese Niklasson – Nov 5, 2021 at 12:29 PM	1	0	Terese Niklasson
SE Comments on Pre-Final Draft	Attachments	Replies	Nov 5, 2021 at 12:28 PM
Terese Niklasson – Nov 5, 2021 at 12:28 PM	1	0	Terese Niklasson
Template for comments to Pre-final draft	Attachments	Replies	Oct 5, 2021 at 3:56 PM
Joze Roth – Oct 5, 2021 at 3.56 PM		0	Joze Roth

## FINAL DRAFT marzo 2022

Starting 2003



### SPLIT **VIEW**

The updated split view assessment, could be found in the following BATIS folder: BATIS > Forum > Textiles Industry > 02 First TXT BREF review 2017->06 Split views > 03 Split view assessment.





# Da che punto siamo partiti

**KoM: June 2018** 

**Data collection from mid-February** to end of-April 2019

First draft of the revised TXT BREF: December 2019

**D2** 

**Revised draft BAT conclusions for** the textiles industry (March 2021)



MITE **ISPRA** ARPA LOMBARDIA (1) 1 ARPA TOSCANA (1) **SUPPORTING EXPERTS (2)** 

Raccolta commenti

# FINAL MEETING

7 giornate dal 25 maggio a 11 giugno 2021

### NOTA MITF del 20-04.2021

Ministero della Transizione Ecologica

SUBJECT: Review of the Reference Document on the Best Available Techniques for the Textile Industry (TXT BRef). Italian TWG members

Referring to the words concerning the seview of the Reference Document on the Best Available Techniques for the Testils Industry (TAT BER), undertaken by the EEPPC Buseus in the concent of the Director 2016/73/E on Industrial Emissions (ED), places find above the new composition of the group of Industria experts who will participate in the information exchange within the deducted relication always group of the propose.

- 1/r Autonio Domenico Mililio
- Mr. Dovide laria
  Service for risks and environmental sustainability of technologies, chemicals, production
  cycles and water services and for inspection activities—Balain environment agency
  (SFRA—high intuities for environmental protection and research)
  eff ~ 30 o 5007 2384

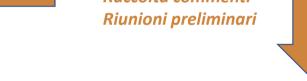
  email: darticle artificial journabicate it
- Mr. Fabto Colonna

#### **CALENDARIO FM**

- Tuesday, 25 May 2021
- Thursday, 27 May 2021
- Tuesday, 01 June 2021
- Friday, 04 June 2021
- Monday, 07 June 2021
- Wednesday, 09 June 2021
- Friday, 11 June 2021







# Campo di applicazione (punto 6.2)

### **RICADONO ATTIVITA' ELENCATE SE ASSOCIATE:**

The following activities when they are directly associated with activities point 6.2:

covered by Directive 91/271/EEC.

The combined treatment of wastewater from

different origins, provided that the main pollutant load originates from activities covered by these BAT

conclusions and that the wastewater treatment is not

SCARICHI CONNESSI

- o COATING
- o DRY CLEANING;
- o FABRIC PRODUCTION
- o FINISHING
- o LAMINATION
- o PRINTING
- o SINGEING
- o WOOL CARBONISING
- o WOOL FULLING
- o YARN PRODUCTION SPINNING OF FIBRES (other than man-made fibres);
- o WASHING OR RINSING ASSOCIATED WITH DYEING, PRINTING OR FINISHING.

### 6.2 PRFTRATTAMENTI

Lavaggio, candeggio, mercerizzazione > 10 t/g

6.2 TINTURA

6.11 IMPIANTI CONSORTILI

> 10 t/q

## IMPIANTI DI COMBUSTIONE «DIRETTI» (monitoring)

On-site combustion plants which that are directly associated with the activities covered by these BAT conclusions, provided that the gaseous products are put into direct contact with the textile fibres or textiles (such as direct heating, drying, heat-setting) or when radiant and/or conductive heat is transferred through a solid wall (indirect heating) without using an intermediary heat transfer fluid





# Considerazioni generali /BAT generali

BAT AEL riferiti a media giornaliera (scarichi idrici continui)

Autocampionatore

INDICATIVE (not associated) LEVELS per consumi specifici

Criteri per calcolo Suddivisione in fasi (acqua)

> Efficienza energetica Piani e audit annuali

# **EMS**

APPLICABILITA'
Livello di dettaglio in relazione
alla dimensione e alla
complessità



INVENTARIO
INPUT OUTPUT RISORSE



INVENTARIO

MATERIALI E SOSTANZE CHIMICHE



OTNOC Monitoraggio transitori

Identificazione degli streams «impattanti»

CMS: valutazione sostituzione sostanze pericolose

Identificazione potenziali emettittori





# Emissioni in acqua (AEL s)

SEPARAZIONE DEI FLUSSI

BAT 19. In order to reduce emissions to water, BAT is to pretreat (separately collected) waste water streams and pastes (e.g. printing and coating) containing high loads of pollutants that cannot be treated adequately by biological treatment.

## SCARICHI DIRETTI

# SCARICHI INDIRETTI Stessi AEL s

Table 5.3: BAT-associated emission levels (BAT-AELs) for direct discharges to a receiving water body

Substance/Parameter		Activities / processes	BAT-AEL (¹) (mg/l)	
Adsorbable organically bound halogens (AOX) (2)			0.1-0.4 (3)	
Chemical oxygen dem	and (COD) (4)	All activities / processes	40–100 ( <sup>5</sup> ) ( <sup>6</sup> )	
Hydrocarbon oil index	(HOI) (2)		1-7	
	Autimore (CL)	Pre-treatment and/or dyeing of polyester textile materials		
Metals / metalloids	Antimony (Sb)	Finishing with flame retardants using antimony trioxide	0.1–0.2 (*)	
	Chromium (Cr)	Dyeing with chromium mordant or chromium- containing dyes (e.g. metal-complex dyes)	0.01-0.1 (8)	
	Copper (Cu)	Dyeing	0.03-0.4	
	Nickel (Ni)	Printing with dyes	0.01-0.1 (°)	
	Zinc (Zn) ( <sup>2</sup> )	All activities / processes	0.04-0.5 (10)	
Sulphide, easily released (S <sup>2-</sup> )		Dyeing with sulphur dyes	<1	
Total nitrogen (TN)			5-15 (11)	
Total organic carbon (TOC) (4) Total phosphorus (TP) Total suspended solids (TSS)		All activities / processes	13–30 ( <sup>6</sup> ) ( <sup>12</sup> )	
		An activities / processes	0.4-2	
		\ \ \ \ \ \ \	5–30	

<b>VE 1 1 1</b>		Pre-treatment and/or		
		dyeing of polyester textile		
S	Antimony (Sb)	materials	0.1-0.2 (5)	
	Anumony (S0)	Finishing with flame	0.1-0.2()	
		retardants using antimony		
		trioxide		
		Dyeing with chromium		
Metals / metalloi	ds Chromium (Cr)	mordant or chromium-	0.01-0.1 ( <sup>6</sup> )	
	Chromani (Cr)	containing dyes (e.g.		
		metal-complex dyes)		
	Copper (Cu)	Dyeing	0.03-0.4	
		Printing with dyes	0.03-0.4	
	Nickel (Ni)	Dyeing	0.01-0.1 (7)	
		Printing with dyes	0.01-0.1()	
	Zinc (Zn) (3)	All processes	0.04-0.5 (8)	
Sulphide, easily a	released (S <sup>2-</sup> )	Dyeing with sulphur dyes	<1	

- (1) The averaging periods are defined in the general considerations.
- (2) The BAT-AELs may not apply if the downstream waste water treatment plant is designed and equipped appropriately to abate the pollutants concerned, provided this does not lead to a higher level of pollution in the environment.
- (3) The BAT-AELs only apply when the substance/parameter concerned is identified as relevant in the waste water stream based on the inventory of inputs and outputs mentioned in BAT 2.
- (4) The higher end of the BAT-AEL range may be higher and up to 0.8 mg/l when dyeing polyester and/or modacrylic fibres.
- (5) The higher end of the BAT-AEL range may be higher and up to 1.2 mg/l when dyeing polyester and/or modacrylic fibres.
- (6) The higher end of the BAT-AEL range may be higher and up to 0.3 mg/l when polyamide, wool or silk fibres are dyed using metal-complex dyes.
- (7) The higher end of the BAT-AEL range may be higher and up to 0.2 mg/l when dyeing or printing with nickel-containing reactive dyes or pigments.
- (8) The higher end of the BAT-AEL range may be higher and up to 0.8 mg/l when treating viscose fibres or when dyeing using zinc-containing cationic dyes.





# **Emissioni in atmosfera (AELs)**

## Formaldeide e COV

Спариег э

Table 5.5: BAT-associated emission levels (BAT-AELs) for channelled emissions of organic compounds and formaldehyde to air

Substance/Parameter	Activities / Processes (including associated thermal treatments)	BAT-AEL (Average over the sampling period) (mg/Nm³)
	Coating (1)	
	Flame lamination	
Formaldehyde	Printing (1)	1-5 (2) (3)
	Singeing	
	Finishing (1)	
1	Coating	
	Dyeing	
	Finishing	7 / /
TVOC	Lamination	3-40 (2) (4) (5)
	Printing	
	Singeing	
3	Thermofixation or heat-setting	

- (1) The BAT-AEL only applies when formaldehyde is identified as relevant in the waste gas stream based on the inventory of inputs and outputs mentioned in BAT 2.
- (2) For activities listed under points 3 and 9, Part 1 of Annex VII to the IED, the BAT-AEL ranges only apply to the extent that they lead to lower emission levels than the emission limit values in Parts 2 and 4 of Annex VII to the IED.
- (3) For finishing processes with easy-care agents, water-/oil-/soil-repellents and/or flame retardants, the higher end of the BAT-AEL range may be higher and up to 10 mg/Nm<sup>3</sup>.
- (4) The lower end of the BAT-AEL range is typically achieved when using thermal oxidation.
- (\*) The BAT-AEL does not apply when the TVOC mass flow is below 200 g/h for emission point(s) where:
  - abatement techniques are not used, and
  - no CMR substances are identified as relevant in the waste gas stream based on the inventory
    of inputs and outputs mentioned in BAT 2.

## **POLVERI**

CAMPIONAMENTI PERIODICI

 BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from singeing and thermal treatments, excluding thermofixation and heat-setting

Substance/Parameter	BAT-AEL (Average over the sampling period) (mg/Nm³)
Dust	< 2–10 (¹)

- (1) The BAT-AEL does not apply when the dust mass flow is below 50 g/h for emission point(s) where:
  - abatement techniques are not used, and
  - no CMR substances are identified as relevant in the waste gas stream based on the inventory of inputs and outputs mentioned in BAT 2.
    - 7: BAT-associated emission level (BAT-AEL) for channelled ammonia emissions to air from coating, printing and finishing, including thermal treatments associated with these processes

## AMMONIACA

Substance/Parameter	BAT-AEL (1) (Average over the sampling period) (mg/Nm³)		
NH <sub>3</sub>	3–10 (²)		

- The BAT-AEL only applies when NH<sub>3</sub> is identified as relevant in the waste gas stream based on the inventory of inputs and outputs mentioned in BAT 2.
- (2) The higher end of the BAT-AEL range may be higher and up to 20 mg/Nm³ when ammonium sulphamate is used as a flame retardant or ammonia is used for curing (see BAT 50).





# **Split views**

## 2 IT Split views inserite nel FD

## MONITORAGGIO POLVERI solo se pertinente

### BAT 9. BAT is to monitor channelled emissions to air with at least the frequency given below

		I IUIII IUIIIIIIIIIIII	II.		J
		Singeing			
	( )	Combustion			
Dust	EN 13284-1	Thermal treatments associated with pre- treatment, dyeing, printing and finishing	year (2)	BAT 27	

#### **CAPITOLO 7**

Degree of consensus reached during the information exchange

**15 split views** were expressed which fulfil the conditions set out in Section 4.6.2.3.2 of Commission Implementing Decision 2012/119/EU.

BAT 261 Table 5.5	Jonas in Section () the present consensed on possible sections the billings red of the SATAMS reggs For Enabling present with any companion and soliton in our oppositions, the higher and of the SATAMS reggs to or to age that. For Enabling presents with tentilize-there and finale contents region and contemporares or the section of the section of the section of the contents region and are contemporares. In Lights and up to a gent for the section of section of written in a privillar device specific section of written in a privillar device specific section of written in a privillar device specific section in the privillar devices of the section of the section for privile healings on we made in the privile.		MagNa/and 20 mgNa/
BATP	Add Somers (5 the the pressurer due.	п	(M)
EXT 40 (0)	Amend the applicability of technique (s) in delicers.  The applicability step he installed by product specifications (a.g. times resentance for high fire safety applications).	16,180	) M
BAT 60(s)	Add a new nechanges (1) on substitution of hosticated distance was them (EFE) with bookprotein minimum. The application many be merciand by the product questionies (a.g. for included minimum promotion requirement).	AT, SEC. DE, DK, TL SE said EEB	164
BAT SI	Add a new reclusion to BAT 50 on intritution of year and polydiamental shipl information (FFAE), with biologicalities unbelones, only applicable if only worse repelled a trapicited. The applicability may be received by the product procification (e.g. the inclinate besides).	AT BE DE DE	HA
BAT 42	The applicability of implanting (a) could reflect the it may be restricted by product specifications (a.g., colour fluence and shote).	п	NA.
BAT 15	Add a View below the Applicability. When China's and Holing Chinacids are used as "40 redshed space I.e. when approprise detail-profit professionars of the work channel for more all the section of the model of the section of the se	α	10A
BATE	For the EFE parameter, sold a formous with the lo- of EFE compressed from Carolina E.I. E. of the	conc	NA.

### Add footnote (4) for the parameter dust.

The monitoring only applies when the substance concerned is identified as relevant in the waste gas stream based on the inventory of inputs and outputs mentioned in BAT 2.

## TINTURA LANA: USO DI COLORANTI REATTIVI solo se possibile

BAT 42. In order to reduce emissions to water from the dyeing of wool, BAT is to use one of the techniques given below in the following order of priority.

Tec	hnique	Description	Applicability	
a.	Optimised reactive dyeing	Wool dyeing is carried out with reactive dyes.	Generally applicable.	b
		Dyeing is carried out with metal-complex dyes under		

### Change:

The applicability of technique (a) could reflect that it may be restricted by product specifications (e.g. colour fastness and shade).

Esempio di Dissenting View (asciugatura no trattamento termico

**Thermal treatment** of textile materials includes thermofixation, heat-setting or a process step (e.g. **drying**, curing) of the activities covered by these BAT conclusions (e.g. coating, dyeing, pretreatment, finishing, printing, lamination

### **DISSENTING VIEW:**

IT raised a dissenting view on the definition of thermal treatment not specifying the conditions of drying.









# Grazie

Fabio Colonna

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