Questionnaire (textiles and printing)



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QUESTIONNAIRE FOR THE TEXTILE AND PRINTING INDUSTRY (SECTOR-RELATED QUESTIONS)

The completion of this questionnaire is voluntary. However, replying to the relevant questions as completely as possible will facilitate and speed up the assessment of the environmental, social and human rights impacts of the project for which the German export supplies or services offered for cover are intended. This – together with the questionnaire not related to a particular sector, the completion and submission of which should also be considered in order to speed up the assessment procedure – can replace the description of the environmental, social and human rights impacts in the memorandum.

The questionnaire provides guidance on what information may be important for this sector. It is based on the World Bank/IFC General Environmental Health and Safety (EHS) Guidelines, the EHS Guidelines for Textile Manufacturing and the EHS Guidelines for Printing. Additional information on the applicable standards can be found at the <u>on our Website</u>.

This is a list of possible questions. Depending on the individual case only some of them, or perhaps also additional information, may become relevant in the course of the application procedure. Because of the specific features of each project further clarification may be required.

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- A. Textile manufacturing (page 2)
- B. Printing industry (page 9)
- C. Additional information (page 15)

A. Textile manufacturing

A.1. General questions

- Please describe what products are manufactured at the site.
- Please describe the production operations and explain the processes used (spinning, weaving, bleaching, dyeing, sewing, etc.).
- Please provide information on the national standards and certifications implemented and describe their contents and requirements.
- Please provide information on the international standards and certifications (Oeko-Tex 1000, Oeko-Tex STeP, Global Organic Textile Standard, EU Ecolabel, SA8000, Fair Wear Foundation, etc.) implemented.

A.2. Resources management

- Please provide information on the project's water consumption and describe the sources used (local drinking water supply, river, lake, use of rainwater or reuse of purified waste water, etc.).
- Is the project area an area where water is scarce?
- Please describe to what extent the water consumption (fresh water or groundwater) affects the ecology
 of the environment and/or the water supply of the local population and agriculture.
- Does a production-related connection with other (planned) facilities (electricity generation, combustion processes, etc.) exist?
- What raw materials (cotton, synthetic fibre, chemicals, other) are used?
- Please provide information on the sources of the raw materials used for the production (cotton, synthetic fibres, chemicals, others) and comment on the sustainability of their cultivation or production.

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 Please state the resources and energy consumption after the project's completion in accordance with the table below.

ProcessValuegy [kWh/kg][MJ/kg][L/kg]Wool ScouringGuideline Value0,33,52-6Project ValueIIIIYarn FinishingGuideline Value70-120Project ValueIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Resource and energy	Resource and energy consumption ^(a)					
Wool ScouringImage: Contract of the second sec	Process	Value			Water Consumption [L/kg]		
Project ValueImage: constraint of the state o	Weel Securing	Guideline Value	0,3	3,5	2-6		
Yarn FinishingImage: Control of the second sec	wool Scouring	Project Value					
Project ValueYarn DyeingGuideline Value0,8 - 1,113 - 1615 - 30 (dyeing) 30 - 50 (rinsing)Project ValueProject Value13 - 1615 - 30 (dyeing) 30 - 50 (rinsing)Loose Fiber DyeingGuideline Value0,1 - 0,44 - 144 - 15 (dyeing) 4 - 20 (rinsing)Project Value0,1 - 0,44 - 144 - 15 (dyeing) 	Varn Finishing	Guideline Value			70 – 120		
Yarn DyeingGuideline Value0,8 - 1,113 - 1030 - 50 (rinsing)Project ValueProject Value0,1 - 0,44 - 144 - 15 (dyeing) 4 - 20 (rinsing)Loose Fiber DyeingGuideline Value0,1 - 0,44 - 144 - 15 (dyeing) 4 - 20 (rinsing)Knitted Fabric FinishingGuideline Value1 - 610 - 60 (b)70 - 120Woven Fabric FinishingGuideline Value0,5 - 1,530 - 70 (c)50 - 100Project Value0,5 - 1,530 - 70 (c)50 - 100Dyed Woven Fabric FinishingGuideline Value<200	ram rinisiniy	Project Value					
Project ValueImage: constraint of the state o	Varn Dyeing	Guideline Value	0,8-1,1	13 – 16			
Loose Fiber DyeingGuideline Value0,1-0,44-144-20 (rinsing)Project ValueProject Value1-610-60 (b)70-120Knitted Fabric FinishingGuideline Value1-610-60 (b)70-120Project Value0,5-1,530-70 (c)50-100Project Value0,5-1,530-70 (c)50-100Project Value<200	fam Dyeing	Project Value					
Project ValueProject ValueImage: constraint of the state of th	Looso Fiber Dusing	Guideline Value	0,1-0,4	4 – 14	4 – 15 (dyeing) 4 – 20 (rinsing)		
Knitted Fabric FinishingProject ValueImage: Constraint of the second	Loose Fiber Dyeing	Project Value					
Woven Fabric FinishingGuideline Value0,5 – 1,530 – 70 ^(c) 50 – 100Project Value0.5 – 1,550 – 100Dyed Woven Fabric FinishingGuideline Value<200	Knitted Fabric	Guideline Value	1 – 6	$10-60^{(b)}$	70 – 120		
Woven Fabric Finishing Project Value Project Value Oyed Woven Fabric Finishing Guideline Value	Finishing	Project Value					
Dyed Woven Fabric Guideline Value <-200	Woven Fabric	Guideline Value	0,5 – 1,5	$30 - 70^{(c)}$	50 – 100		
Dyed Woven Fabric		Project Value					
Finishing	Dyed Woven Fabric	Guideline Value			<200		
a) European Commission (2003b). The data of "industry benchmarks" originate from only a limited number of installa-	Finishing	Project Value					

tions.

b) The higher value is for mills also having spinning and coning sections.

c) The higher value is for mills also having spinning, twisting, and coning sections.

Source: WORLD BANK/IFC EHS Guidelines for TEXTILE MANUFACTURING 2007, page 13

A.3. Waste and hazardous materials

- What relevant waste products are generated on site?
- What measures are taken of avoid, treat and dispose of the waste (solid/liquid) generated and where/how is it deposited?
- Are sludge and hazardous materials that are generated in the course of the production process (waste water treatment, chemical residues, etc.) disposed of through companies licenced for that?

- Will the disposal of waste and hazardous materials meet local standards and national law?
- Will any chemicals be used that are listed in the OEKO-TEX SteP¹ (previously OEKO-TEX Standard 1000) Manufacturing Restricted Substance List (MRSL)?
- Please describe use, storage and transport of hazardous materials and chemicals at the site.
- How are hazardous materials and chemicals prevented from seeping into the soil and the groundwater (leakages, accidents, etc.)?

A.4. Air emissions

Please state the expected maximum values for air emissions after the project's completion for all process steps in accordance with the table below. Occasionally, not all pollutants listed in the table are emitted or others specific to the project have to be added. Please inform us if that is the case.

Pollutants	Unit	Guideline Value	Project Value
VOCs	mg/Nm³	2 / 20 / 50 / 75 / 100 / 150 ^(a, b)	
Chlorine	mg/Nm³	5	
Formaldehyde	mg/Nm³	20	
Ammonia	mg/Nm³	30	
Particulates	mg/Nm³	50 (c)	
H₂S	mg/Nm³	5	
CS₂	mg/Nm³	150	

b) As the 30-minute mean for stack emission. Applicability of guideline values:

- 2 mg/Nm3 for VOCs classified as carcinogenic or mutagenic with mass flow greater than or equal to 10 g/hour;

- 20 mg/Nm3 for discharges of halogenated VOCs with a mass flow equal or greater than 100 g/hour;
- 50 mg/Nm3 for waste gases from drying for large installations (solvent consumption >15 t/a);
- 75 mg/Nm³ for coating application processes for large installations (solvent consumption >15 t/a);

- 100mg/Nm³ for small installations (solvent consumption <15 t/a).

- If solvent is recovered from emissions and reused, the limit value is 150 mg/Nm³

c) As the 30-minute mean for stack emissions.

d) Guideline values are applicable to installations with a solvent consumption >5t/a.

Source: WORLD BANK/IFC EHS Guidelines for TEXTILE MANUFACTURING 2007, page 12

¹ See Appendix 3 of the OEKO-TEX SteP Standards

- Please also state the (expected) emission values (in particular greenhouse gas emissions (CO₂eq), dust (PM), sulfur dioxide (SO₂) and nitrogen oxides (NO_x) in mg/Nm³) for any steam and power generation. In the case of plants with a capacity of more than 50 MW_{thermic} please use the questionnaire *Conventional Energy* as guideline.
- Please describe what measures are taken to avoid/reduce air emissions from the site. Will separated dust be recycled?
- What limit values for ambient air quality are applicable in the buyer's country (please make a table available)? Please state the relevant expected air emission levels. Please comment on changes in the ambient air quality before and after the project implementation. If there are no national limit values, please use the table below.

WHO Ambie	WHO Ambient Air Quality Guidelines ^{1,2}						
	Averaging Period	IFC Guideline Value [µg/m³]	Guideline Value Host country	Project Value (baseline status) [μg/m³]	Project Value (after imple- mentation) [μg/m³]		
Sulfur dioxide (SO ₂)	24-hour	125 (Interim target-1) 50 (Interim target-2) 20 (guideline)					
	10 minute	500 (guideline)					
Nitrogen dioxide	1-year	40 (guideline)					
(NO ₂)	1-hour	200 (guideline)					
Particulate Matter	1-year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline) 150 (Interim target-1)					
(PM ₁₀)	24-hour	100 (Interim target -2) 75 (Interim target-3) 50 (guideline)					
Particulate	1-year	35 (Interim target-1)25 (Interim target-2)15 (Interim target-3)10 (guideline)					
Matter (PM _{2.5})	24-hour	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) 25 (guideline)					

Ozone	8-hour daily maximum	160 (Interim target-1) 100 (guideline)			
Notes: ¹ World Health Organization (WHO). Air Quality Guidelines Global Update, 2005. PM 24-hour value is the 99th percentile. ² Interim targets are provided in recognition of the need for a staged approach to achieving the recommended guidelines.					
Source: WORLD BANK/IFC GENERAL EHS GUIDELINES 2007, page 4					

• Please describe the on-site monitoring of air emissions as well as ambient air quality levels.

A.5. Effluents

- What wastewater streams are generated?
- How are effluents treated before they are discharged? Please also state whether effluents are discharged into a public sewage treatment system or into surface water bodies (river, lake, sea). If there are discharges, please provide information on the quantities of the wastewater streams (e.g. m³/h or l/s).
- If wastewater is discharged directly into a surface water body, please state the maximum values of the pollution levels in mg/l in accordance with the table below. Occasionally, not all pollutants listed in the table are emitted or others specific to the project have to be added. Please inform us if that is the case.

Effluent levels for the tex	Effluent levels for the textile industry ^(a)					
Pollutants	Units	Guideline Value	Project Value			
рН	S.U.	6 – 9				
BOD	mg/L	30				
COD	mg/L	160				
AOX	mg/L	1				
TSS	mg/L	50				
Oil and Grease	mg/L	10				
Pesticides	mg/L	$0,05-0,10^{(b)}$				
Cadmium	mg/L	0,02				
Chromium (total)	mg/L	0,5				
Chromium (hexavalent)	mg/L	0,1				
Cobalt	mg/L	0,5				
Copper	mg/L	0,5				
Nickel	mg/L	0,5				
Zinc	mg/L	2				
Phenols	mg/L	0,5				

Sulfide	mg/L	1		
Total Phosphorus	mg/L	2		
Ammonia	mg/L	10		
Lead	mg/L	0,2		
Total Nitrogen	mg/L	10		
Color	m ⁻¹	7 (436 nm, yellow) 5 (525 nm, red) 3 (620 nm, blue)		
Toxicity to Fish Eggs	T.U. 96h	2		
Temperature increase	°C	<3		
Coliform bacteria	MPN/100ml	400		
 a) At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity b) 0.05 mg/L for total pesticides (organophosphorous pesticides excluded); 0.10 mg/l for organophosphorous pesticides. Source: WORLD BANK/IFC EHS Guidelines for TEXTILE MANUFACTURING 2007, page 13 				

How and where are the effluents discharged? Please explicitly comment on a temperature rise at the point of discharge, describe possible effects of the discharge on the ecology of the water bodies and provide information on the condition and size of the water body (e.g. flow values, flow rate). Please give also details on protection measures.

- Please describe the measures planned to avoid/reduce/treat wastewater.
- Please describe the on-site monitoring of the effluent values.
- What national standards are applicable in the buyer's country for the discharge of sanitary sewage? How
 is sewage treated before it is discharged? Please state the expected maximum values of the pollution
 levels in the sewage. If there are no national limit values, please use the table below.

Indicative Values for Treated Sanitary Sewage Discharges ¹					
Pollutants	Units	Guideline Value	Project Value		
рН	pН	6-9			
BOD	mg/L	30			
COD	mg/L	125			
Total nitrogen	mg/L	10			
Total phosphorus	mg/L	2			
Oil and grease	mg/L	10			
TSS	mg/L	50			
Total coliform bacteria	MPN ² /100 ml	400 ¹			
Notos:					

Notes

¹ Not applicable to centralized, municipal, wastewater treatment systems which are included in EHS Guidelines for Water and Sanitation.

² MPN = Most Probable Number

Source: WORLD BANK/IFC GENERAL EHS GUIDELINES 2007, page 30

A.6. Noise

 Please state the noise impact (existing background noise level and additional noise emissions of the project) on the nearest receptors (industrial estates and residential areas) in dB(A) for day and night after completion of the project in accordance with the table below.

Noise Level Guidelines ¹ One Hour LA _{eq} (dBA)				
Receptor	Guideline Value Daytime (07:00-22:00)	Dne Hour Project Value Daytime (07:00-22:00)	Guideline Value Nighttime (22:00-07:00)	Project Value Nighttime (22:00-07:00)
Residential; institutional; educational ²	55		45	
Industrial; commercial	70		70	
² For acceptable in	s are for noise levels measure ndoor noise levels for residenti BANK/IFC GENERAL EHS GU	ial, institutional, and e	ducational settings refer to V	

- Do the project's noise emissions lead to an increase of the background noise level at the nearest receptors by more than 3 dB(A)?
- How far is the nearest residential area away?
- Are noise mitigation measures necessary or planned? If so, what measures?

A.7. Occupational health and safety

- What safety measures and/or control systems are planned to prevent accidents?
- How are safety and health (in particular with regard to the operation of machines, exposure to emissions, heat, noise, x-rays and chemicals) guaranteed at the workplace?
- What average and maximum noise exposure is to be expected in the production? What safety measures are taken at workplaces where the noise exposure exceeds 85 dB(A)?
- Please make accident statistics for the past two years available to us.

- How are subcontractors integrated into the health and safety measures on site?
- Please provide information on the safe handling of chemicals and hazardous materials at the site and describe any rules of conduct.

A.8. Health and safety of the population

- What measures are taken to minimize impacts and possible risks (noise, odours, air emissions and/or due to increased traffic) for adjacent communities?
- Please make information on infrastructure links (access roads, railway link, etc.), which may be necessary, available to us.

A.9. Social aspects

- How is it guaranteed that national workers' rights are respected?
- What international standards and conventions on workers' rights are taken into account (freedom of association, right of collective bargaining, equal treatment, prohibition of child labour, prohibition of forced labour, etc.)?
- Will a grievance mechanism for workers and/or affected communities be implemented?
- Will the project operator offer programmes for further education and professional training for workers or affected communities?

B. Printing industry

B.1. General questions

Please describe the production processes and explain the printing technology used (lithography, offset printing, gravure, flexography, letterpress printing, etc.).

- Please describe what products will be produced.
- Does a production-related connection with other (planned) facilities (electricity generation, combustion processes, etc.) exist?

B.2. Resources management and waste

- What raw materials are used?
- What relevant waste products are generated on site?
- What measures are taken of avoid, treat and dispose of the waste (solid/liquid) generated and where/how is it deposited?
- Please give also details on possible waste incineration processes (type and quantity of waste, incineration temperature, etc.).
- Please provide additional information on the use of raw materials and the waste generated by completing the table below.

Resource Use and Wast	Resource Use and Waste ^(a)					
Inputs per unit of product	Unit	Industry Benchmark	Project Value			
Energy		(h)				
Energy consumption	MWh/ton	0,52-0,77 ^(b)				
Water Water consumption per paper used	m³/ton	0,62 – 2,09 ^(c)				
Materials						
Total consumption of printing carriers	kg/ton	1,110 – 1,370				
Non-renewable materi- als (films, plates, miner- al-based oil in printing	kg/ton	0,50 – 11				
ink, UV-ink and plastics) Hazardous materials	kg/ton	0-1,2				

Outputs per unit of product	Unit	Industry Benchmark	Project Value		
Emissions VOC-emissions	kg/ton	0,17-0,69			
Notes: a Data from 1998-2000 for Sw edish commercial printing industry, except where otherw ise noted. Source: Enroth (2001) b Includes statistics for Finland, 130 printing firms, in year 2000. Source: O.Ö. Energiesparverband (2003)					
c Data from year 2000 for 130 printing firms in finland. Low er value for heatset and higher value for sheet-fed print- ers. Coldset printers have intermediate values. Source: O.Ö. Energiesparverband (2003)					
Source: WORLD BANK/IFC	EHS Guidelines for PRINTING	G 2007, page 11			

B.3. Hazardous materials

- Please provide information on the hazardous materials used on the site and on their disposal and/or reuse.
- Are sludge and hazardous materials that are generated in the course of the production process (waste water treatment, chemical residues, etc.) disposed of through companies licenced for that?
- Will the disposal of waste and hazardous materials meet local standards and national law?
- Please describe use, storage and transport of hazardous materials and chemicals at the site.
- How are hazardous materials and chemicals prevented from seeping into the soil and the groundwater (leakages, accidents, etc.)?

B.4. Noise

Please state the noise impact (existing background noise level and additional noise emissions of the project) on the nearest receptors (industrial estates and residential areas) in dB(A) for day and night after completion of the project in accordance with the table below.

Noise Level Gu	uidelines ¹	delines¹ One Hour LA _{eq} (dBA)				
Receptor	Guideline Value Daytime (07:00-22:00)	Project Value Daytime (07:00-22:00)	Guideline Value Nighttime (22:00-07:00)	Project Value Nighttime (22:00-07:00)		
Residential; institutional; educational ²	55		45			
Industrial; 70 70 70						
Notes: ¹ Guidelines values are for noise levels measured out of doors. Source: Guidelines for Community Noise, WHO, 1999. ² For acceptable indoor noise levels for residential, institutional, and educational settings refer to WHO (1999).						

Source: WORLD BANK/IFC GENERAL EHS GUIDELINES 2007, page 53

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- Do the project's noise emissions lead to an increase of the background noise level at the nearest receptors by more than 3 dB(A)?
- How far is the nearest residential area away?
- Are noise mitigation measures necessary or planned? If so, what measures?

B.5. Effluents

- How much (fresh) water is used? Is the water recirculated?
- Where and how is the water withdrawn?
- What wastewater streams are generated?
- How are effluents treated before they are discharged? Please also state whether effluents are discharged into a public sewage treatment system or into surface water bodies (river, lake, sea). If there are discharges, please provide information on the quantities of the wastewater streams (e.g. m³/h or l/s).
- If wastewater is discharged directly into a surface water body, please state the maximum values of the pollution levels in mg/l in accordance with the table below. Occasionally, not all pollutants listed in the table are emitted or others specific to the project have to be added. Please inform us if that is the case.

Effluent Levels for Printing Industry					
Pollutants	Units	Guideline Value	Project Value		
рН	-	6-9			
COD	mg/L	150			
BOD ₅	mg/L	30			
Total Phosphorus	mg/L	2			
Total Suspended Solids (TSS)	mg/L	50			
Oil and Grease	mg/L	10			
Aluminium	mg/L	3			
Cadmium	mg/L	0,1			

Chromium Hexavalent Total	mg/L	0,1 0,5		
Copper	mg/L	0,5		
Iron	mg/L	3		
Lead	mg/L	1		
Silver	mg/L	0,5		
Zinc	mg/L	0,5		
Cyanide	mg/L	0,2		
Adsorbable Organi- callybonded Halogens (AOX)	mg/L	1		
Toxicity	To be determined on a case specific basis			
Temperature increase	°C	<3 ^a		
a At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiv- ing water use, potential receptors and assimilative capacity				
Source: WOLRD BANK/IFC EHS Guidelines for PRINTING, page 11				

How and where are the effluents discharged? Please explicitly comment on a temperature rise at the point of discharge, describe possible effects of the discharge on the ecology of the water bodies and provide information on the condition and size of the water body (e.g. flow values, flow rate). Please give also details on protection measures.

- Please describe the measures planned to avoid/reduce/treat wastewater.
- Please describe the on-site monitoring of the effluent values.
- What national standards are applicable in the buyer's country for the discharge of sanitary sewage? How is sewage treated before it is discharged? Please state the expected maximum values of the pollution levels in the sewage. If there are no national limit values, please use the table below.

Indicative Values for Treated Sanitary Sewage Discharges ¹				
Pollutants	Units	Guideline Value Project V		
рН	рН	6-9		
BOD	mg/L	30		
COD	mg/L	125		
Total nitrogen	mg/L	10		
Total phosphorus	mg/L	2		
Oil and grease	mg/L	10		
TSS	mg/L	50		

Total coliform bacteria	I coliform bacteria MPN ² /100 ml			
Notes: ¹ Not applicable to centralized, municipal, wastewater treatment systems which are included in EHS Guidelines for Water and Sanitation. ² MPN = Most Probable Number				
Source: WORLD BANK/IFC GENERAL EHS GUIDELINES 2007, page 30				

B.6. Air emissions

Please state the expected maximum values for air emissions after the project's completion for all process steps in accordance with the table below. Occasionally, not all pollutants listed in the table are emitted or others specific to the project have to be added. Please inform us if that is the case.

Air Emission Levels for Printing Industry				
Pollutant	Units	Guideline Value	Project Value	
VOC	mg/Nm³	100 ^{a, b}		
		20 ^{a, c}		
		75 ^{a, d}		
		100 ^{a, e}		
Particulates	mg/Nm³	50 ^f		
NOx	mg/Nm³	100 – 500 ^g		
Isocyanates	mg/Nm³	0,1 ^h		
 NOTES: a) Calculated as total carbon b) Heatset web offset printing with 15-25 tonnes / year solvent consumption c) Heatset web offset printing with >25 tonnes / year solvent consumption d) Publication rotogravure with >25 tonnes / year solvent consumption e) Other rotogravure, flexography, rotary screen printing, laminating, or varnishing units (> 15 tonnes / year solvent consumption) e) Other rotogravure, flexography, rotary screen printing, laminating, or varnishing units (> 15 tonnes / year solvent consumption) rotary, screen printing on textile/card-board (> 30 tonnes / year solvent consumption) f) As 30 minute mean for contained sources. From all processes / activities. g) As 30 minute mean for contained sources. From turbines, reciprocating engines or boilers used as VOC abatement equipment. h) As 30 minute mean for contained sources, excluding particulates, and expressed as NCO. From all process- 				

y i es / activities using isocyanates. Source: WORLD BANK/IFC EHS Guidelines for PRINTING 2007, page. 10

- Please also state the (expected) emission values (in particular greenhouse gas emissions (CO2eq), dust (PM), sulfur dioxide (SO₂) and nitrogen oxides (NO_x) in mg/Nm³) for any steam and power generation. In the case of plants with a capacity of more than 50 MW_{thermic} please use the questionnaire *Conventional* Energy as guideline.
- Please describe what measures are taken to avoid/reduce air emissions from the site.
- Will there be a Solvent Management Plan?

What limit values for ambient air quality are applicable in the buyer's country (please make a table avail-able)? Please state the relevant expected air emission levels. Please comment on changes in the ambient air quality before and after the project implementation. If there are no national limit values, please use the table below.

WHO Ambient Air Quality Guidelines ^{1,2}					
	Averaging Period	IFC Guideline Value [μg/m³]	Guideline Value Host country	Project Value (baseline status) [μg/m³]	Project Value (after imple- mentation) [μg/m³]
Sulfur dioxide (SO ₂)	24-hour	125 (Interim target-1) 50 (Interim target-2) 20 (guideline)			
	10 minute	500 (guideline)			
Nitrogen	1-year	40 (guideline)			
dioxide (NO ₂)	1-hour	200 (guideline)			
Particulate Matter (PM ₁₀)	1-year	70 (Interim target-1) 50 (Interim target-2) 30 (Interim target-3) 20 (guideline)			
	24-hour	150 (Interim target-1)100 (Interim target-2)75 (Interim target-3)50 (guideline)			
Particulate Matter (PM _{2.5})	1-year	35 (Interim target-1)25 (Interim target-2)15 (Interim target-3)10 (guideline)			
	24-hour	75 (Interim target-1) 50 (Interim target-2) 37.5 (Interim target-3) 25 (guideline)			
Ozone	8-hour daily maximum	160 (Interim target-1) 100 (guideline)			
Notes: ¹ World Health Organization (WHO). Air Quality Guidelines Global Update, 2005. PM 24-hour value is the 99th					

percentile. ² Interim targets are provided in recognition of the need for a staged approach to achieving the recommended guidelines.

Source: WORLD BANK/IFC GENERAL EHS GUIDELINES 2007, page 4

Please describe the on-site monitoring of air emissions as well as ambient air quality levels. •

B.7. Occupational health and safety

- What safety measures and/or control systems are planned to prevent accidents?
- How are safety and health (in particular with regard to the operation of machines, exposure to emissions, heat noise, x-rays and chemicals) guaranteed at the workplace?
- What average and maximum noise exposure is to be expected in the production? What safety measures are taken at workplaces where the noise exposure exceeds 85 dB(A)?
- Please make accident statistics for the past two years available to us.
- How are subcontractors integrated into the health and safety measures on site?
- Please provide information on the safe handling of chemicals and hazardous materials at the site and describe any rules of conduct.

B.8. Health and safety of the population

- What measures are taken to minimize impacts and possible risks (noise, odours, air emissions and/or due to increased traffic) for adjacent communities?
- Please make information on infrastructure links (access roads, railway link, etc.), which may be necessary, available to us.

B.9. Social aspects

How is it guaranteed that national workers' rights are respected?

- What international standards and conventions on workers' rights are taken into account (freedom of association, right of collective bargaining, equal treatment, prohibition of child labour, prohibition of forced labour, etc.)?
- Will a grievance mechanism for workers and/or affected communities be implemented?
- Will the project operator offer programmes for further education and professional training for workers or affected communities?

C. Additional information

Additional information on the **Common Approaches**, our **environmental**, **social and human rights due diligence** and the **applicable standards** can be found at:

https://www.exportkreditgarantien.de/en/sustainability/sustainability/ehsr-assessment.html

The World Bank/IFC EHS Guidelines can be found on the website:

http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our +ap proach/risk+management/ehsguidelines.