

# Higg Index

## **Higg Facility Environment Module (Higg FEM) Assessment Questions**

Version 3.0

Released November 2017

## **Higg Facility Environmental Module (Higg FEM) Convergence Partners**

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*The Higg FEM Chemicals Management section is a joint effort among the Sustainable Apparel Coalition (SAC), the Outdoor Industry Association (OIA), and the Zero Discharge of Hazardous Chemicals (ZDHC) Programme to converge their respective chemicals tools into one assessment questionnaire.*



Higg FEM replaces the standalone OIA Chemicals Management Module Facilities Indicators. OIA recommends that all its members utilize the Higg FEM as one holistic tool in its entirety, and as their primary source of benchmarking and measurement for chemicals management best practices at the facility level.

## **Ø ZDHC**

Higg FEM replaces the ZDHC Audit Protocol V.2.0, which is no longer supported by ZDHC. ZDHC Contributors are encouraged to access and utilize Higg FEM as a critical part of the ZDHC system of tools for management and improvement of chemical management. Further, ZDHC requests that Contributors accept Higg FEM assessments and verifications as indicators of chemical management performance.

Through the process of convergence, ZDHC, OIA, and the SAC intend to reach thousands of facilities to harmonize chemical management assessments and reduce duplicative efforts, while also increasing assessment quality and enabling data sharing.

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## Higg Facility Environmental Module (Higg FEM) version 3.0

### Content

#### General Information and Structure of FEM 3.0 Facility Profile

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### General Information and Structure of FEM 3.0

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All facilities are required to complete their facility profile on higg.org first, where they are asked to provide information regarding their industry sector, facility type, facility processes, site information, material types, total number of employees, annual production volumes and all permits and licenses they hold. After completing the facility profile, you can start filling in the Facility Environment Module (FEM) sections.

In the module on Higg.org, each section has an introduction and guidance, and all questions in FEM 3.0 have the following additional information and context provided, which provides substantial guidance on:

- Scoring rules
- What is the intent of the question?
- How does this question help a facility drive improvement?
- Technical guidance
- How this will be verified
- Other references

In addition to the in-tool information and guidance given, the Higg FEM has a so-called 'How to Higg' guide, which is a comprehensive guidance document that contains additional background information, guidance and references to aid facilities and guide them through the completion of the Higg Module. For further information and to access the How to Higg guide, visit [howtohigg.org](http://howtohigg.org).

#### **Applicability Test**

Some sections in FEM 3.0 have an applicability test, which means that users are asked to fill out several questions regarding each topic. Questions are used to determine whether your facility is, for example, a heavy water user or a light water user, which subsequently determines which questions in that section apply and do not apply to your facility and hence do not contribute to your FEM score.

The sections that have an applicability test are: Water, Wastewater, Air Emissions and Chemicals Management.

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## Facility Profile

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Your responses to these questions will be used to categorize your factory for comparative analytics. Please reference [howtohigg.org](http://howtohigg.org) for detailed guidance for each question.

### Industry Sector

Select all that apply:

- Apparel
- Footwear
- Home Textiles (includes bed linens, tablecloths, towels, cloth napkins and similar products)
- Accessories (includes handbags, jewelry, belts and similar products)
- Home Furnishings
- Hard Goods (includes bikes, tents, backpacks, luggage, electronics, coolers, climbing gear, watercraft, and other equipment made of metal, plastic, or wood)
- Other

### Facility Type

Select all that apply:

- Sewing or Final Product Assembly
- Printing or Dyeing
- Materials Supplier
- Trim
- Chemical
- Packaging

### Facility Processes:

Sewing or Final Product Assembly	Printing or Dyeing	Materials Supplier (incl. wet process)	Trim	Chemical	Packaging
Casting	Dyeing	Casting	Casting	Raw Material Storage / Warehousing	Converting raw materials (incoming paperboard or plastic resin)
Cutting	Sublimation	Coating	Dyeing	Chemical Synthesis	Die cutting (e.g. cartons)
Embossing	Wet printing	Dyeing	Gluing	Standardization / Chemical Finishing	Assembly (e.g. corrugated board)
Priming	Screen Printing	Extrusion	Heat Press / Heating and Cooling	Blending / Formulating	Molding (plastic)

Heat Press / Heating and Cooling	Rotary Printing	Finishing	Lamination/Coating	Packaging	Printing
Lasting		Insulation: animal (down) processing	Molding	Waste Treatment / Management	Assembly
Molding		Insulation: non-woven processing	Non-woven	Final Product Warehousing / Storage	Gluing
No sew		Knitting		Shipping	Finishing
Packaging		Lamination			Die cutting
Gluing		Mixing (EVA / Rubber / primer / glue)			Packing
Seam Taping		Bonding			Shipping
Sewing		Spinning			
Sundries Application		Tanning (beam house or retannage)			
Washing		Vulcanization			
Welding		Washing			
Printing		Weaving			
Embroidery					

## Material Types

### Barriers

- BiComponent Coating
- BiComponent Laminate
- Microporus Coating
- Microporus Laminate
- Monolithic Coating

### Foams

- Ethylene-vinyl acetate (EVA) foam
- Polyethylene (PE) foam
- Polyurethane (PU) foam

### Insulation Materials

- Duck Down insulation
- Goose Down Insulation
- Polyester insulation
- Sheep Wool insulation

### Leather

- Cow leather
- Goat leather
- Kangaroo leather
- Pig leather

### Metals

- Aluminum
- Brass
- Chromium
- Copper
- Gold
- Iron
- Lead
- Nickel
- Platinum
- Silver
- Steel
- Tin
- Titanium
- Zinc

### Plastics

- Acrylonitrile butadiene styrene (ABS) plastic
- Epoxy plastic
- Nylon/Polyamide (PA) plastic
- Poly(methyl methacrylate) (PMMA) (Acrylic) plastic
- Polycarbonate (PC) plastic
- Polyester plastic
- Polyethylene (PE) plastic
- Polylactic Acid (PLA) plastic

- Polypropylene (PP) plastic
- Polysterene (PS) plastic
- Polytetrafluoroethylene (PTFE) plastic
- Polyurethane (PU) plastic
- Polyvinyl Acetate (PVA) plastic
- Silicone plastic
- Thermoplastic Polyurethane (TPU) plastic
- Thermoset PU plastic

### Rubbers

- Butyl rubber
- Chloroprene rubber (Neoprene)
- Elastomeric polyurethane (PU ) rubber
- Foamed rubber
- Isoprene Rubber (IR)
- Natural Rubber (NR)
- Nitrile Rubber (NBR)
- Polybutadiene rubber (BR)
- Silicone rubber
- Styrene-butadiene rubber (SBR)
- Thermoplastic elastomer (TPE)

### Synthetic Leathers

- Polyurethane (PU) synthetic leather

### Textiles

- Acetate, Triacetate fabric
- Acrylic fabric
- Alpaca
- Aramid fabric
- Bast fiber fabric
- Carbon fiber fabric
- Elastane/Spandex fabric
- Glass fiber fabric
- Lyocell fabric
- Cashmere
- Cotton fabric
- Modal fabric
- Nylon fabric
- Polyester fabric
- Polylactic Acid (PLA) fabric
- Polypropylene (PP) fabric
- Silk fabric
- Viscose/Rayon fabric
- Wool fabric

### Wood-Based

- Cork
- Wood

### Operating Days:

Total number of days per year the facility operates

**Specify the number of total, full-time and temporary, employees:**

- 1-25
- 26-100
- 101-500
- 501-1,000
- 1,001-5,000
- 5,001-10,000
- 10,000+

**What was your facility's annual production volume?**

*IMPORTANT: Your annual production unit will be used for all normalized baselines, targets, and reductions in the Higg Energy, Water, and Waste sections. Please select the unit that you use most commonly use to track production for your facility. For example, if you report your annual production in kilograms, you will be asked to share baselines for energy used per kilogram in the Energy section and baselines for water used per kilogram in the Water section.*

**Quantity:** number

**Units**

- Unit (piece or pair)
- Square Yard
- Meter
- Kilogram

**Does your facility site use pre-treatment for freshwater prior to entering the manufacturing process?**

*Suggested Upload: Schematics or permits*

- Yes
- No
- Not applicable

**If yes, please select what type: (include option to upload pre-treatment flow chart, not required)**

**Pre-Treatment**

- [Screening/Seaving](#)
- [Equalization tank/Homogenization tank](#)
- [Grit chambers \(only Spanish version\)](#)
- [pH Neutralization](#)

**Primary Treatment**

- [Coagulation -flocculation](#)
- [Primary clarifier](#)
- [Dissolved air flotation](#)
- [Lamellar settling](#)

**Biological Treatment**

- [Activated sludge](#)
- [Sequential batch reactor \(SBR\)\(only Spanish version\)](#)
- [Trickling filters](#)
- [Rotating biological contactors](#)
- [Submerged aerated filters](#)
- [Aerated biofilters](#)
- [Fluidized Bed](#)
- [Anaerobic digestion](#)

- [UASB Reactor](#)
- [Membrane bioreactors](#)
- [Aerated ponds](#)

#### Secondary Treatment

- [Sand filtration](#)
- [Adsorption with activated carbon](#)
- [Fenton reactions](#)
- [Ozonization](#)
- [Membrane filtration and reverse osmosis](#)
- [Ion exchange](#)

#### Advanced

- [Advanced Oxidation Processes \(AOPs\)](#)
- [Electrocoagulation-Electroflocculation \(only Spanish version\)](#)
- [Evaporation](#)

#### Sludge Treatments

- [Sludge thickening](#)
- [Sludge dehydration technologies](#)
- Please upload your facility's pre-treatment flow chart, if you have one

#### Guidance:

- Need definitions: [http://www.wateractionplan.com/en/web/gestion-del-agua/training#panel\\_2](http://www.wateractionplan.com/en/web/gestion-del-agua/training#panel_2)

## Permits

The purpose of this section is to determine your compliance status with relevant environmental permits. Please include adherence to any rules or regulations your facility is required to follow such as permits, authorizations, licenses, registrations, certificates or other compliance documentation. Examples of non-permit requirements to include are annual required government reports and required registration of specific chemicals.

Please note that this section is NOT SCORED. This means that you do not get points for being in compliance. However, you must be in compliance to earn any points in the Facility Environmental Module. If you answer "No" to "Does your factory site have a valid operating license?", you will score ZERO for the entire module. This is because a valid operating license is required to score points in the Facility Environmental Module.

### 1. Does your factory site have a valid operating license, if required by law?

- Yes
- No
- Unknown
- Not applicable, not required by law.

Please upload a copy of the operating license, if applicable.

Scoring: If the facility answers "No" to PER-1.1, they will score ZERO for the entire module. If "No or unknown" is selected for PER-1.1 a pop-up will appear. "A valid operating license is required to use the Facility Environmental Module - you will be able to proceed but will score ZERO points for this assessment."



**2. Did your facility receive any government-issued environmental violation records in 2017?**

- Yes
- No
- Unknown

**If yes, please describe the violation and your site's action plan to improve**

*Suggested Upload: Copies of violation notices*

**Does your facility currently have any records in the Institute of Public & Environmental Affairs (IPE) database?**

- Yes
- No
- Unknown

*Suggested Upload: IPE database records*

**If yes, has your facility supplied enterprise feedback to the database and/or taken steps to remove the record(s) from the database?**

- Yes
- No
- Unknown

**3. Please complete the following questions to provide details on your facility's environmental permits requirements and compliance status**

*Please note that licenses/permits for hazardous waste contractors will be requested in the Waste section.*

Permit / Agreement Type	Required for your site? If yes, all columns must be complete to move on from this page.	Name of the regulatory agency issuing the permit or agreement	Effective Date (MM/YYYY)	Is there an expiration date (MM/YYYY)	What is your Compliance Status for this permit?	Upload a copy of your permit	Provide any additional notes
Is a permit required for water use?	<i>Required Not Required</i>	<i>Open text</i>	<i>MM/YYYY</i>	<i>Yes / No If yes, MM/YYYY</i>	<i>In compliance Not in compliance</i>	<i>Upload</i>	<i>Open text</i>
Is a permit required for water discharge?							
Is a permit required for wastewater treatment?							
Are permits required for							

specific chemical use and management?							
Are permits required for air emissions?							
Is a permit required for solid waste discharge?							
Are any other environmental permits required?							

## Section 1. Environmental Management System (EMS)

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### EMS – Level 1

**1. Are one or more employees at your facility responsible for coordinating your facility's environmental management activities?**

- Yes
- No
- Unknown

**If yes, please answer the following questions for each:**

- Name (text)
- Job title (text)
- Time spent on environmental management (select one):
  - Full time (100%)
  - Half time (50-99%)
  - Part time (1-49%)
  - Seasonal
  - Contract
- Select environmental topic (select all that apply):
  - Energy
  - Waste
  - Water
  - Wastewater
  - Air Emissions
  - Chemicals Management
- Description (text)

*Please answer Yes if you have any full-time, half-time, part-time, seasonal or contract employees working on environmental management in your facility.*

*If yes, provide details below. Click the "+Add" button to provide details on up to five employees. If you wish to provide details on more than five employees, please upload these details in a document.*

**2. Does your facility have a company environmental management strategy that guides long-term decision-making on environmental management?**

- Yes
- No
- Unknown

**Select all topics covered by this strategy:**

- Energy
- Water
- Wastewater
- Air
- Waste
- Chemicals Management

Please upload environmental management strategy if available

If you cannot upload the documents, please describe here:

*Please answer Yes if you have a documented environmental strategy in place that sets forth environmental priorities, goals, and actions for 3+ years. A good environmental strategy should: 1) address your facility's significant environmental impacts and compliance obligations as prioritized in your environmental impact assessment; 2) be supported by factory leadership; and 3) be communicated to all employees. To ensure environmental objectives are carried out, your strategy should include plans for achievement that detail: what will be done, what resources will be required, who will be responsible, when it will be completed, and how results will be evaluated (reference: ISO 14001). If you have an environmental strategy that aligns with requirements in ISO 14001, you may answer Yes to this question.*

**3. Has your facility identified the significant environmental impacts associated with current operations within the factory premises?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please answer Yes only if you have an environmental impact assessment that shows significant environmental impacts from current factory operations.*

*Upload: a) Environmental impact analysis and aspect evaluation; b) Latest local government environmental assessment report (if applicable)*

**4. Does your site have a program or system in place to review and monitor environmental permit status and renewal (where appropriate) and ensure compliance?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Upload: a) List of required permits needed for facility to operate; b) Documentation of program or system in place to review and monitor environmental permit status and renewal and ensure are meeting the law requirement*

*Suggested Upload: Calendar for permit activities.*

**5. Does your facility maintain a documented system to identify, monitor and periodically verify all laws, regulations, standards, codes and other legislative and regulatory requirements for your significant environmental impacts?**

*Please answer Yes only if you have a system to monitor requirements.*

*Suggested Upload: Calendar for regular meetings with representatives from relevant organizations.*

- Yes
- No
- Unknown

**Select all topics covered by the system:**

- Energy
- Water
- Wastewater
- Air
- Waste
- Chemicals

**Are the findings used to set an improvement plan that is regularly reviewed?**

*Upload: Documentation of your system to identify, monitor, and periodically verify all laws, regulations, standards, codes, and other legislative and regulatory requirements for your significant environmental impacts*

Please upload documentation if available

If you cannot upload the documents, please describe here:

**6. Does your facility have a process and schedule to maintain all equipment?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please answer Yes if you maintain all equipment as this is important for managing emissions to air, energy efficiency, water efficiency, and other environmental impacts.*

*Upload: a) Documentation of your process to maintain all equipment on your facility site; b) Maintenance schedule*

*Suggested Upload: List of responsible individuals*

**EMS – Level 2**

**7. Does your facility review the environmental management strategy with your facility's managers each calendar year?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please answer Yes only if you have evidence of management reviews conducted in 2017.*

*Suggested Upload: Records from last annual management strategy review.*

*Upload: a) Internal communication plan showing yearly training schedule for communicating the facility environmental strategy with factory management; b) Training material for most recent environmental management strategy training conducted*

**8. Do employees at your facility responsible for environmental management have the technical competence required to do their job?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please answer Yes if you can explain how you ensure environmental employees: a) have technical competence, b) are provided with trainings or certifications as needed, and c) are evaluated for competence on an annual basis. If you can demonstrate employee competence but do not yet have a process for annual performance review, please answer Partial Yes.*

*Suggested Upload: Qualifications (including certifications) for individuals responsible for environmental management.*

*Upload: a) List of individuals that are responsible for environmental related issues; b) Job descriptions for the list of individuals that are responsible for environmental related issues; c) Procedure to cross reference the individuals listed have the technical competence required to do their job*

**9. Does your facility promote awareness of the environmental strategy to employees?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Workers play a major role in how much energy and water is used, how much waste is generated, and can also help identify improvements for air and wastewater impacts. Please answer Yes if you can demonstrate how your environmental strategies have been communicated to workers. If you are in the process of developing a communication plan, you may answer Partial Yes.*

*Suggested Upload: Training document examples (e.g. posters).*

*Upload: Plan for promoting awareness of the environmental strategy to workers.*

**10. Does your facility monitor, evaluate, and/or engage with your subcontractors on their environmental performance using the Higg Index?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please answer Yes if you engaged subcontractors in environmental assessment using Higg. If you have a plan to engage subcontractors, please answer Partial Yes. If you do not have subcontractors, select "Not Applicable".*

*Upload: a) List of all subcontractors that your facility conducts business with and identify which ones have been engaged using Higg; b) Proof of Higg Index engagement: e.g., show Higg.org Module share or other documentation of their Module results such as an emailed export of results.*

### EMS – Level 3

**11. Does your facility engage in environmental improvement in your local context?**

- Yes
- No

**Select the ways in which your facility engages in environmental improvement:**

- No, we focus on our own impact reduction
- Yes, we are supporting (financially or otherwise) conservation or improvement projects for environmental issues (e.g. preserving wetlands).
- Yes, we work with other similar businesses to share best practice for environmental management.
- Yes, we engage in dialogue with local communities to understand their views on how we as a company should manage our environmental impacts.
- Yes, we work within a group of other local stakeholders including government and communities, to understand and address local environmental issues together.
- Yes, we engage directly with local or national governance bodies on environmental regulation or management issues.
- Yes, we work together in a group with other local stakeholders, to engage with local or national governance bodies on environmental regulation or management issues.
- Yes, other please describe.

*Please answer Yes if you have engaged in your local context (e.g., your community, your river basin, your region) and can show improvements and lists of stakeholders that you worked with.*

*Suggested Upload: a) Evidence of environmental improvement in your local context (e.g., community, river basin, etc.); b) List of local stakeholders and dates of engagement*

Tech: for each of these, ask them to select the environmental topic and describe.



**12. Does your facility monitor, evaluate, and/or engage with your upstream suppliers using the Higg Index?**

- Yes
- Partial Yes
- No
- Unknown

If yes, which type of suppliers?

- Chemical suppliers
- Raw material suppliers
- Other, please describe

For each, describe your engagement activities and environmental benefit that has resulted.

Please upload documentation if available

*Please answer Yes if you can show Module shares, Higg.org invitations, or Module exports from your upstream suppliers. If you cannot yet show results but can demonstrate your plan for an upcoming Higg.org roll-out, please answer Partial Yes.*

*Suggested uploads: a) List of ALL upstream suppliers facility conducts business with; b) Proof of Higg Index engagement: e.g., emailed registration invitations, communications / requests for completion, Higg.org connection or Module share, or documentation of their Module results.*

## Section 2. Energy Use & GHG

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### Energy & GHG – Level 1

**1. Select all sources of energy for your facility:**

*You will receive full points if you are completely tracking all sources of energy that your facility uses. You will receive partial points if you are completely tracking at least one of your energy sources, but are not yet tracking all of your energy sources.*

*Suggested Upload: a) Copies of utility bills (or meter readings) for all energy sources listed covering the full calendar year; b) Picture of the energy meters used to monitor the consumption of the main energy sources.*

Select all sources of energy for your facility	Does your facility track its energy use from this source?	What quantity of energy was used by this source in 2017?	Which method was used to track this energy source?	What was the frequency of measurement?	Provide any additional comments
<p><i>Biomass</i> Select all types of biomass used at your facility:</p> <ul style="list-style-type: none"> <li>• Begasse</li> <li>• Cane Sugar</li> <li>• Cashew Nut Shell</li> <li>• Corncob</li> <li>• Cornstalk</li> <li>• Empty Fruit Branch</li> <li>• Eucalyptus Bark</li> <li>• Palm Fiber</li> <li>• Palm Leaf</li> <li>• Palm Shell</li> <li>• Palm Trunk</li> <li>• Parawood</li> <li>• Peanut Shells</li> <li>• Rice Husk</li> <li>• Rice Straw</li> <li>• Saw Dust</li> <li>• Sliver of wood</li> <li>• Tapioca Rhizome</li> <li>• Wood Briquette</li> <li>• Biodiesel</li> </ul>	<p>Yes No Unknown</p>	<p>Enter Quantity: _____ Select Unit:</p> <ul style="list-style-type: none"> <li>• g</li> <li>• kg</li> <li>• lb</li> <li>• oz</li> <li>• ton (metric)</li> <li>• ton (short)</li> <li>• kWh</li> <li>• MJ</li> <li>• mmBTU</li> <li>• BTU</li> <li>• Joule</li> <li>• cu ft</li> <li>• cu yard</li> <li>• liter</li> <li>• m3</li> <li>• gal</li> <li>• CCF</li> </ul>	<p>Meters Invoices Estimates</p>	<p>Continuously Daily Weekly Monthly Bimonthly Quarterly Annually</p>	
<p><i>Chilled Water</i> The most common practice is to generate your own chilled water by chilling with purchased electricity, but in some areas you purchase chilled water from a centralized system - must track for Scope 1</p>					
<i>Coal</i>					
<i>Diesel</i>					
<i>Electricity (produced on-site)</i>					
<i>Electricity (purchased)</i>					
<i>Fuel Oil</i>					
<i>Geothermal</i>					
<i>Hydro</i>					
<i>Micro-Hydro</i>					

Natural Gas					
Petrol					
Solar Photovoltaic					
Steam (produced on-site)					
Steam (purchased)					
Wind					

### Energy & GHG – Level 2

**2: Has your facility set baselines for energy use? If yes, select all sources of energy for which your facility has set a baseline.**

*In order to demonstrate improvements or reductions, it's important to know what your starting point is. A "baseline" is a starting point or benchmark that you can use to compare yourself against over time. For example, if your facility used 80 MJ of natural gas per 10,000 fabric meters in 2016, you will be able to compare your performance against this amount in years to come. In this example, "80 MJ of natural gas per 10,000 fabric meters in 2016" is an example of a normalized baseline.*

*Suggested Upload: A full year's worth of energy consumption data that is used for setting energy reduction targets.*

Energy Source (fills from source selections above)	Is the baseline absolute or normalized?	What is the baseline quantity? <i>If you are reporting a normalized baseline, it must be normalized by the production unit you specified in the Site Info section. Please make sure your normalization calculation reflects your production volumes from your baseline year, not from 2017.</i>	Enter the baseline year	How was your baseline calculated?	Was the baseline verified?
Source	Normalized Absolute	Enter Quantity: _____ Numerator Unit: <ul style="list-style-type: none"> <li>• g</li> <li>• kg</li> <li>• lb</li> <li>• oz</li> <li>• ton (metric)</li> <li>• ton (short)</li> <li>• kWh</li> <li>• MJ</li> <li>• mmBTU</li> <li>• BTU</li> <li>• Joule</li> <li>• cu ft</li> <li>• cu yard</li> <li>• liter</li> </ul>	Dropdown of years	Open text	If yes, tell us date and auditing party. Not req

		<ul style="list-style-type: none"> <li>• m3</li> <li>• gal</li> <li>• CCF</li> </ul> <p><i>Denominator Unit: populates from annual production selection in Site Info</i></p>			
+ Add new row					

**3. Does your facility know what facility processes or operations use the most energy?**

- Yes
- No

**Upload the methodology for identifying the highest energy use factors**

If you do not have a document to upload, describe your methodology here

**What are the highest energy use factors at your facility?**

*These can be any factors in production such as machines, processes, or sections*

*It is important to understand what influences energy use the most in your facility. This allows you to strategically target those factors in order to improve energy efficiency and/or greenhouse gas emissions. Please answer Yes only if you have documented records and methodology to identify the highest factors of energy use on-site (e.g., processes, machines, etc.).*

*Suggested Upload: a) Ranking of processes or services that consume the most energy (with energy consumption values); b) Copy of an energy audit conducted by an energy management specialist (if available)*

**4. Has your facility set targets for improving energy use or GHG emissions? If yes, select all sources of energy for which your facility has set an energy or GHG reduction target.**

*You will receive full points if you set targets for energy sources that make up 80% or more of your total energy use. You will receive partial points if you set targets for energy sources that make up 50-79% or more of your total energy use. This is to reward you for aiming to improve your most significant sources of energy use which will maximize environmental impact.*

If yes, please tell us about your targets: (tool auto-calculates)

Fuel Source (pull down info from	Scope (auto populates as 1 or 2 based on Fuel source	kWh (auto populated )	What is your target for change in megajoules (MJ) use	Enter the target year	Is this a normalized or absolute target?	Proposed Emissions reduction (renewables does not calculate unless there	Proposed kWh reduction	Describe the measures planned to achieve this target
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table above) Add option for: Overall energy / GHG emissions	drop down. No Scope 3 emissions calculated)		from this source? Enter a negative percentage for a reduction target, and a positive percentage for an increase target			is an applicable emissions factor)		
Fuel Oil	Scope 1		-10%		Normalized Absolute			Text
Electricity	Scope 2		-30%		Normalized Absolute			Text
<b>TOTAL</b>		X kWh				X CO2e	X kWh	

**5. Does your facility have an implementation plan to improve energy use and/or GHG Emissions?**

- Yes
- Partial Yes
- No
- Unknown

**Upload a copy of the plan**

Improvements may be made by reducing energy use or improving GHG emissions by replacing existing energy sources with renewable sources. Please answer Yes if you have an implementation plan in place that demonstrates you are taking action to achieve your targeted reductions. Please choose Partial Yes if you have a plan but have not started on all action items. You may download a sample implementation plan here:

[https://www.dropbox.com/s/fm2ilfjcqnw93ew/Template\\_Implementation\\_Plan.xlsx?dl=0](https://www.dropbox.com/s/fm2ilfjcqnw93ew/Template_Implementation_Plan.xlsx?dl=0)

**6. Has your facility improved energy consumption compared with its baseline? If yes, select all sources of energy that have been improved.**

You will receive full points if you made reductions for energy sources that make up 80% or more of your total energy use. You will receive partial points if you made reductions for energy sources that make up 50-79% or more of your total energy use. This is to reward you for reducing your greatest sources of energy use which will maximize environmental impact.

We recommend that you show normalized reductions such as “electricity used per fabric meter was reduced by 2% in 2017.” This is because normalized metrics show real improvement rather than reductions from business changes such as reduced production.

Suggested Upload: Relevant utility bills or record of the consumption for 2017 and relevant utility bills for the calendar years that are compared to the baseline.

If yes, please complete the energy reduction table: (tool auto-calculates)

<b>Fuel Source (pull down info. From table above)</b>  Add one option in the drop-down "overall energy / GHG emissions"	<b>Scope (auto populates as 1 or 2 based on Fuel source drop down. No Scope 3 emissions calculated)</b>	<b>Select a baseline year</b>	<b>Indicate your facility's change in energy use from this source</b> <i>Enter a negative number for a reduction, and a positive number for an increase</i>	<b>kWh reduction</b>	<b>Describe the strategies used to achieve this improvement</b>
<b>Fuel Oil</b>	<b>Scope 1</b>			<b>Quantity Unit of Measure</b> <ul style="list-style-type: none"> <li>• g</li> <li>• kg</li> <li>• lb</li> <li>• oz</li> <li>• ton (metric)</li> <li>• ton (short)</li> <li>• kWh</li> <li>• MJ</li> <li>• mmBTU</li> <li>• BTU</li> <li>• Joule</li> <li>• cu ft</li> <li>• cu yard</li> <li>• liter</li> <li>• m3</li> <li>• gal</li> <li>• CCF</li> </ul>	<b>Text</b>
<b>Electricity</b>	<b>Scope 2</b>				<b>Text</b>
<b>TOTAL</b>			<b>X CO2e</b>	<b>X kWh</b>	

## Energy & GHG – Level 3

**7. Were your facility's annual Scope 3 greenhouse gas (GHG) emissions calculated in 2017? (This question is not scored.)**

- Yes
- No
- Unknown

**Report your facility's 2017 Scope 3 GHG emissions in co2e here:**

**Describe your Scope 3 calculation here:**

*The GHG Protocol categorizes these emissions into three broad scopes:*

*Scope 1: All direct GHG emissions. (this was covered in Level 1 energy tracking)*

*Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam. (this was covered in Level 1 energy tracking)*

*Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc. (Source: <http://www.ghgprotocol.org/calculationg-tools-faq>)*

*Calculating Scope 3 emissions for your facility or business is an advanced practice that can be noted in this question. However, this question is unscored because Higg only gives Level 3 points for taking action that improves environmental impact directly. Calculating Scope 3 emissions can provide useful insights and/or support reporting, but it does not guarantee any environmental improvement has occurred.*

*Suggested Upload: Scope 3 Emissions Inventory including boundaries and methodology applied.*

## Section 3. Water Use

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### Applicability Test

1. **How many days per year does your facility operate?** *This information will be used to auto-calculate average daily water use to determine applicability.*
2. **Is your facility location rated “high” or “very high” for overall water risk using either of these tools?**
  - [WRI Aqueduct Tool](#)
  - [WWF Water Risk Filter](#)
  - *Low risk or very limited risk = proceed to question 2*
  - *Medium or limited/some risk = proceed to question 2*
  - *High risk = you are considered a HEAVY WATER USER*
  - *Extremely or very high risk = you are considered a HEAVY WATER USER*

### Water Use – Level 1

**1. Select all water sources used by your facility (see table below)**

*If you are unable to tell us the amount of water used from a source, the method being used to track it, and the frequency of measurement; please select No or Unknown as your answer option for the question: Does your facility track its water use from this source?*

*You will receive full points if you are completely tracking the quantity of water that your facility withdraws from all sources. You will receive partial points if you are completely tracking at least one of your sources, but are not yet tracking all of your sources.*

*Suggested uploads: Utility bills or water meter readings for the full calendar year*

**APPLICABILITY NOTE:** This information will be used to auto-calculate average daily water use to determine applicability.

- If your facility site uses more than 35 m3/day, you are a HEAVY WATER USER
- If your facility site uses less than or equal to 35 m3/day, you are a LIGHT WATER USER

	Does your facility track water use from this source?	What quantity of water from this source was used in 2017?	Which method was used to track water use from this source?	What was the frequency of measurement?	Provide any additional comments
Fresh Surface Water	Yes No Unknown	Quantity Unit of Measure <ul style="list-style-type: none"> <li>• CCF</li> <li>• cu ft</li> <li>• cu yard</li> <li>• gal</li> <li>• liter</li> <li>• m3</li> <li>• MI</li> </ul>	Meters Invoices Estimates	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually	
Rainwater					
Groundwater					
Produce/Process Water					
Municipal Water					
Wastewater from another organization					
Brackish Water/Seawater					
Total Water					



## Water use – Level 2

**2. Has your facility set baselines for water use? If yes, select all water sources for which your facility has set a baseline.**

*If you are unable to tell us your baseline year and normalized quantity for a source; please select No or Unknown as your answer option for that source.*

*In order to demonstrate improvements or reductions, it's important to know what your starting point is. A "baseline" is a starting point or benchmark that you can use to compare yourself against over time. For example, if your factory used 80 m<sup>3</sup> of water per 10,000 fabric meters in 2016, you will be able to compare your performance against this amount in years to come. In this example, "80 m<sup>3</sup> of water per 10,000 fabric meters in 2016" is an example of a normalized baseline.*

Water Source (fills from source selections above)	Is the baseline absolute or normalized?	What is the baseline quantity? (#) <i>If you are reporting a normalized baseline, it must be normalized by the production unit you specified in the Site Info section. Please make sure your normalization calculation reflects your production volumes from your baseline year, not from 2017.</i>	Enter the baseline year	How was your baseline calculated?	Was the baseline verified?
Fresh Surface Water	Normalized Absolute	Enter Quantity: _____ Select Numerator Units: <ul style="list-style-type: none"> <li>• CCF</li> <li>• cu ft</li> <li>• cu yard</li> <li>• gal</li> <li>• liter</li> <li>• m<sup>3</sup></li> <li>• MI</li> </ul> <i>Denominator Unit: populates from annual production selection in Site Info</i>	Dropdown of years	Open Text	Yes No Unknown
Rainwater					
Groundwater					
Produced/Process Water					
Municipal Water					
Brackish Surface Water / Seawater					
Total Water					

**3. Does your facility know what facility processes or operations use the most water?**

- Yes
- No
- Unknown

Upload the methodology for identifying the highest water use factors OR If you do not have a document to upload, describe your methodology here:

**What are the highest water use factors at your facility?**

*It is important to understand what influences water withdrawal the most in your facility. This allows you to strategically target those factors in order to reduce water withdrawal. Please answer Yes only if you have documented incoming water, water loss and outgoing water in a water pipeline drawing/diagram/flowchart that is complete with meter locations.*

*Suggested uploads: ranking of processes or services that consume the most water (with water consumption values).*

**4. Has your facility set targets for reducing water use? If yes, select all sources of water for which your facility has set a reduction target.**

*If you are unable to tell us your target amount, year and whether it is absolute or normalized for a source; please select No or Unknown as your answer option for that source.*

*You will receive full points if you set targets for water sources that make up 80% or more of your total water use. You will receive partial points if you set targets for water sources that make up 50-79% or more of your total water use. This is to reward you for aiming to reduce your greatest sources of water withdrawal which will maximize environmental impact.*

*We recommend that you set normalized targets such as “reduce total water use by 30% by 2020”. This is because normalized metrics show real improvement rather than reductions from business changes such as reduced production. For example, if your baseline was “80 m3 per 10,000 fabric meters in 2016” then a good normalized target might be: “Reduce total water use by 30% per fabric meter by 2020”.*

*Please upload:*

*Documentation describing the targets in place to reduce the water withdrawal*

*Evidence of the site’s actions towards meeting the targets or, if targets are newly established, documentation of the review structure and responsibility delegation to achieve results*

**If yes, please tell us about your targets: (tool auto-calculates)**

Select source targeted to be improved (select one)	M3 (autopopulated from total above)	What is your target for change in water use from this source?	Enter the target year	Is this a normalized or absolute target?	Proposed m3 reduction	Describe the measures planned to achieve this target.

		<i>Enter a negative percentage for a reduction target, and a positive percentage for an increase target</i>				
All water Fresh surface water Rainwater Groundwater Produced/process water Municipal water Wastewater from another organization Brackish surface water/seawater		-10%		<b>Select one:</b> <b>Normalized</b> <b>Absolute</b> <b>Other</b>  Guidance: The target setting should allow the facilities to express and set their own targets which may not fall in absolute or normalized target.		<i>Text</i>
+ Add new rows						<i>Text</i>
<b>TOTAL</b>	Xm3				Xm3	

**5. Does your facility have an implementation plan to improve water use?**

- Yes
- No
- Unknown

Please upload a copy of the implementation plan.

*Please answer Yes if you have an implementation plan in place that demonstrates you are taking action to achieve your targeted reductions.*

*Suggested uploads: Please upload the water use reduction plan showing specific actions designed to achieve targeted reductions in water consumption.*

**6. Has your facility reduced water withdrawal, compared with your baseline? Select all water sources that have been reduced.**

*If you have entered a baseline for each of your sources, your reductions will be auto-calculated below. If you have not entered a baseline, you have the option to manually enter your reductions below. If you have no reductions or are unable to state what your reductions are for a source, please select No as your answer option for that source.*

*You will receive full points if you made reductions for water sources that make up 80% or more of your total water use. You will receive partial points if you made reductions for water sources that make up 50-79% or more of your total water use. This is to reward you for reducing your greatest sources of water withdrawal which will maximize environmental impact.*

If yes, complete this table:

Select source that was reduced	Select baseline year	Indicate your facility's change in water use from this source <i>Enter a negative number for a reduction, and a positive number for an increase</i>	Describe the strategies used to achieve this improvement.
All water Fresh surface water Rainwater Groundwater Produced/process water Municipal water Wastewater from another organization Brackish surface water/seawater		Quantity Unit of Measure <ul style="list-style-type: none"> <li>• CCF</li> <li>• cu ft</li> <li>• cu yard</li> <li>• gal</li> <li>• liter</li> <li>• m3</li> <li>• MI</li> </ul>	
+ Add new rows			

### Water use – Level 3

**7. Has your facility implemented a water balance or another analysis to evaluate the traceability of water intake vs. usage (i.e. which processes) and output (i.e. to wastewater treatment plant)?**

- Yes
- Partial Yes
- No
- Unknown

*Please answer Yes if your facility has fully implemented a water balance to fully understand the traceability of water intake vs. usage and outputs in the facility. A complete water balance must include the below information. Please answer Partial Yes if you have completed a partial water balance, but have an action plan to complete all requirements.*

*The incoming water in the facility: amount and water sources.*

*The quantity of water used during the production process*

*The quantity of water recycled/reused in the facility*

*The quality of wastewater generated*

*The wastewater generated in the facility*

*The volume of water discharged after the own treatment*

*The frequency which the water balance is updated*

*Suggested uploads: Water Balance or equivalent*

Upload the methodology for analyzing the water balance.  
How was the water balance analysis conducted?

## Section 4. Wastewater / Effluent

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### Applicability Test

**1. Does your facility generate domestic wastewater?**

- Yes = go to Q2
- No = receive an error (*required to select yes because everyone has domestic wastewater*)

**2. Does your facility generate industrial wastewater?**

- Yes = go to Q3
- No = go to Q5

**3. Does your facility have Zero Liquid Discharge?**

- Yes = **ZLD TREATMENT**
- No = go to Q4

**4. Do you treat industrial and domestic wastewater separately or together?**

- Together = go to Q6
- Separately = go to Q5

**5. Where is your domestic wastewater treated?**

- Treated onsite only and discharge to the environment after treatment = **DOMESTIC ONSITE**
- Treated offsite only = **DOMESTIC OFFSITE**
- Treated onsite and offsite = **DOMESTIC ONSITE + OFFSITE**
- Sent to septic system = **SEPTIC**
- Not treated = cannot proceed, receive alert.

**6. Where is your industrial (or industrial and domestic combined) wastewater treated?**

- Treated onsite only = **INDUSTRIAL ONSITE**
- Treated offsite only = **INDUSTRIAL OFFSITE**
- Treated onsite and offsite = **INDUSTRIAL ONSITE + OFFSITE**
- Not treated = **STOP**

Question	INDUSTRIAL ONSITE	INDUSTRIAL OFFSITE	INDUSTRIAL ONSITE +OFFSITE	ZLD
1a. Does your facility track its industrial wastewater volume?	X	X	X	
1b. Does your facility track its domestic wastewater volume?	X	X	X	
2. Please indicate which wastewater guideline(s) you are reporting against (quality)	X	X	X	X
3. What is the name and contact information of the offsite wastewater treatment plant?		X	X	

4. Does your facility have a back-up plan if there is an emergency situation related to wastewater?	X	X	X	
5. Is sludge disposed of properly?	X		X	
7. Have you requested wastewater quality test results from the offsite wastewater treatment plant?		X	X	
8. Does your facility reuse and/or recycle process wastewater as process water (closed loop)?	X	X	X	X

**Questions for Industrial Wastewater Categories:** These questions will apply to all factories that have both industrial / domestic wastewater or zero liquid discharge systems.

**Questions for Domestic-Only Wastewater Categories:** These questions will apply to all factories that do not have industrial wastewater and only have domestic wastewater.

INDICATOR	DOMESTIC ONSITE	DOMESTIC OFFSITE	DOMESTIC ONSITE +OFFSITE	SEPTIC
2. Please indicate which wastewater guideline(s) you are reporting against (quality)	X		X	
3. What is the name and contact information of the offsite wastewater treatment plant?		X	X	
5. Is sludge disposed of properly?	X		X	
6. Does your facility treat septic wastewater before it is discharged?				X
7. Have you requested wastewater quality test results from the offsite wastewater treatment plant?		X	X	

## Wastewater/Effluent – Level 1

**1. Does your facility track its industrial and/or domestic wastewater volume?**

*Wastewater generated includes water that is either discharged, reclaimed/recycled or reused at your site. Please include all manufacturing and/or commercial activities within your facility site's wastewater generation, including domestic use, as well as wastewater/effluent from dormitories, bathrooms, showers, and kitchens.*

*Suggested Upload: Annual wastewater production monitoring record (quality and quantity)*

**If yes, please complete this table:**

<i>Type (fills from applicability selection)</i>	<b>Industrial Wastewater</b>	<b>Domestic Wastewater</b>	<b>Combined Industrial and Domestic</b>
<b>What was the total quantity of industrial wastewater discharged from your facility in 2017?</b>	m3/year	m3/year	m3/year
<b>Which method was used to track industrial wastewater volume?</b>	Meters Invoices Estimates	Meters Invoices Estimates	Meters Invoices Estimates
<b>What was the frequency of measurement?</b>	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually
<b>What was the final discharge point for your facility's industrial wastewater?</b>	Offsite Wastewater Treatment Plant Septic or Lagoon Environment: Land Environment: Water Recycled / reused in the facility	Offsite Wastewater Treatment Plant Septic or Lagoon Environment: Land Environment: Water Recycled / reused in the facility	Offsite Wastewater Treatment Plant Septic or Lagoon Environment: Land Environment: Water Recycled / reused in the facility
<b>Provide any additional comments</b>			

**2. Please indicate which wastewater guideline(s) you are reporting against:**

- Permit
- Wastewater Standard (e.g., ZDHC Wastewater Guideline or other)

*For each guideline, provide detailed information on any detections found, including action plans for improvement. If you are reporting to a wastewater guideline you will receive additional points for achieving higher levels of wastewater performance. Please see How to Higg for more detailed information on wastewater guidelines.*

Uploads: Test report(s)

**If Permit is selected:**

- **Is your facility in compliance with its permit and/or contractual agreements?**  
*E.g. with the offsite wastewater treatment plant*
  - If yes, upload a copy of the permit
  - If yes, upload test results
  - If no, list detections and describe action plan.

**If Wastewater Standard (e.g., ZDHC Wastewater Guideline or other) is selected:**

- **Which wastewater standard are you using?**
  - ZDHC Wastewater Guideline
  - BSR
  - IPE
  - Customer/Brand
  - If other, please describe

*If BSR, IPE, Customer/Brand, or Other were selected:*

**Have you tested and met all parameters specified in the standard?**

- Yes
- No - I have tested and did not meet one or more parameter limits

*If ZDHC Wastewater Guideline was selected:*

**Have you tested and met all parameters specified in the guideline?**

- No - I have tested and did not meet one or more parameter limits
- Yes – I have tested and MET at least the FOUNDATIONAL limits for all parameters listed in Table 1 Conventional Parameters in ZDHC Wastewater Guidelines
- If yes, upload test results

**Which level did your facility meet for conventional parameters in 2017, based on the ZDHC Wastewater Guidelines?**

- Foundational = partial points in Level 2 (12.5 points)
- Progressive = full points in Level 2 (25 points)
- Aspirational = full points in Level 3 (33.33 points)

**Does your test result also show no detection of parameters in Table 2A-N Chemical Groups?**



- Yes – there is NO detection of parameters in Table 2A-N Priority Groups identified in my facility’s wastewater report
- No – one or more parameters in Table 2A-N Priority Groups is detected in my facility’s wastewater

**Detections Tables**

**Permit:**

Select parameters which were not met	Indicate the quantity detected	Units	Indicate the limit	Units	How long have you had this problem?	Upload your action plan for the substance detected / If you don't have a document to upload, describe your plan
Ammonium-N Antimony AOX Arsenic BOD5 Cadmium Chromium (VI) Chromium, total Cobalt COD Coliform [bacteria/100 ml] Colour [m-1] (436nm; 525; 620nm) Copper Cyanide Lead Mercury Nickel Oil and Grease Persistent Foam pH Phenol Silver Sulfide Sulfite Temperature [°C] Total-N Total-P TSS Zinc Nonylphenol (NP), mixed isomers Octylphenol (OP), mixed isomers	Quantity Unit of Measure	Dropdown references units from WW guideline	Quantity Unit of Measure	Dropdown references units from WW guideline	0-3 months 3+ months	Type or upload

Octylphenol ethoxylates (OPEO) Nonylphenol ethoxylates (NPEO) Other						
---	--	--	--	--	--	--

**Wastewater Standard:**

Select parameters which were not met	Indicate the quantity detected	Units	Indicate the limit	Units	Indicate ZDHC Level, if applicable	Upload your action plan for the substance detected / If you don't have a document to upload, describe your plan
Ammonium-N Antimony AOX Arsenic BOD5 Cadmium Chromium (VI) Chromium, total Cobalt COD Coliform [bacteria/100 ml] Colour [m-1] (436nm; 525; 620nm) Copper Cyanide Lead Mercury Nickel Oil and Grease Persistent Foam pH Phenol Silver Sulfide Sulfite Temperature [°C] Total-N Total-P TSS Zinc Nonylphenol (NP), mixed isomers Octylphenol (OP), mixed isomers Octylphenol ethoxylates (OPEO) Nonylphenol ethoxylates (NPEO) Other	Quantity Unit of Measure	Dropdown references units from WW guideline	Quantity Unit of Measure	Dropdown references units from WW guideline	Foundational Strategic Aspirational	Type or upload

### 3. What is the name and contact information of the offsite wastewater treatment plant?

- Name:
- Address:
- Ownership:
- Do you have a copy of the contract with the wastewater treatment plant?
  - Please upload documentation if available
  - If you cannot upload the documents, please describe here:

*This information is important because environmental contamination from improper treatment must be addressed regardless of where the problem originates. This information can help your factory, the community, and local businesses prevent or cleanup accidental environmental contamination in the case of a failure.*

*You will receive full points if you know your wastewater treatment plant and are able to upload a contract. Please note that a contract will be required during verification for all factories in China.*

*Upload: a) Signed contract with the offsite wastewater treatment plant; b) A permit for your facility to show that they are allowed to discharge into the offsite wastewater treatment plant*

### 4. Does your facility have a back-up plan if there is an emergency situation related to wastewater?

Select all strategies included in your facility's back-up plan for wastewater

- Emergency Production Shutdown
- Holding Tank
  - What is the size of your facility's holding tank?
- Secondary Treatment
- Discharge to Offsite Water Treatment Plant
- Other Backup Process
  - If other, please describe
  - Please upload documentation if available

#### **What is your facility's wastewater treatment handling capacity per day?**

*It is critical that your facility have a backup plan in the event of a wastewater treatment failure in order to prevent untreated effluent from being discharged to the local environment. If you do not have a backup process that can handle your average daily capacity, you cannot score points or complete Level 1.*

*Suggested Upload: Back-up process, including schematics and capacity.*

*Upload: Documented back-up process that is sufficient to treat the average daily amount of wastewater discharged by the facility site.*

### 5. Is sludge disposed of properly?

If yes, what type of sludge do you have?

- Hazardous (chemical / industrial)
- Non-Hazardous (domestic only)

**If hazardous**, how is your sludge disposed of?

- Hazardous Waste Treatment
- Incinerated controlled conditions
- Landfilled
- Open burning
- Fuel Blended
- Composted
- Fertilizer (applied to land)

**If non-hazardous**, how is your sludge disposed of?

- Hazardous Waste Treatment
- Incinerated controlled conditions
- Landfilled
- Open burning
- Fuel Blended
- Composted
- Fertilizer (applied to land)

*If you have hazardous sludge it must be disposed of through a licensed hazardous waste contractor or through incineration under properly controlled conditions. Non-hazardous sludge can be disposed of through any method though you must provide documented evidence that your facility's sludge is not hazardous.*

*Suggested Upload: a) Sludge analysis or test results (if non-hazardous is selected); b) permits or manifests for proper disposal or land application.*

### 6. Does your facility treat septic wastewater before it is discharged?

- If yes, please describe

*Septic wastewater needs to be treated and disposed of properly to avoid contaminating the environment.*

*Suggested Upload: a) Documentation that your facility treats septic wastewater before it is discharged; b) Plan to upgrade your septic tank to a more modern wastewater treatment approach.*

**How does your site unload your septic tank once full?**

- Describe where it is discharged
- Describe how it is treated after discharge
- Please upload documentation if available

**Do you have a plan to upgrade your septic tank to a more modern wastewater treatment approach?**

- If yes, please describe

*Your facility should begin planning to upgrade your septic system to a more modern form of treatment in order to properly contain pollutants long-term. You will be awarded partial points if you are properly treating and disposing of septic wastewater, but do not yet have a plan to upgrade to a modern treatment system.*

## Wastewater/Effluent – Level 2

### 7. Have you requested wastewater quality test results from the offsite wastewater treatment plant?

Please upload documentation if available.

If you cannot upload the documents, please describe here:

*It is important to be aware of any wastewater quality violations at the wastewater treatment plant in the event that your facility is contributing to environmental contamination. Although your facility does not have authority over the offsite wastewater treatment plant, please provide evidence of your request for wastewater quality results, even if quality results were not provided. This question is intended to provide you with more information in case you are able to take any action to assist the wastewater treatment plan in proper treatment and discharge to the environment.*

*Upload: a) Documentation of your request to offsite wastewater treatment plant for wastewater quality records; b) Offsite wastewater treatment plant quality records (if provided)*

## Wastewater/Effluent – Level 3

### 8. Does your facility reuse and/or recycle process wastewater as process water (closed loop)?

Enter the percentage of wastewater treated and recycled back into your production processes

Please describe

*Please answer Yes if you have wastewater treatment in place to recycle 50% or more of your production wastewater back into production processes. The recycled water must be used in production processes - other uses like irrigation, toilets are excluded. Treatment may be chemical or biological such as membrane filtration or Zero Liquid Discharge.*

*Suggested Upload: a) Records demonstrating closed-loop recycling (process water to process water); b) List of water reduction achievement(s) according to the location where water is captured for recycling OR the location where recycled water is used.*

## Section 5. Waste

### Waste – Level 1

**1. Which non-hazardous waste streams does your site produce? Select all that apply:**

*Includes production and domestic waste. You will receive full points if you are completely tracking the quantity of all waste streams that your facility generates. You will receive partial points if you are completely tracking at least one of your waste sources, but are not yet tracking all of your sources.*

*It is important to also specify how each waste stream is being disposed of in order to identify opportunities to increase your use of preferred disposal methods (e.g., reuse, recycling, properly controlled energy recovery, incineration, and biological/chemical treatment) and reduce landfilling and/or uncontrolled incineration.*

*Suggested Upload: Waste Manifest*

- Materials (please specify)
- Metal
- Plastic
- Paper
- Cans
- Food
- Glass
- Cartons
- Other (please specify)
- All domestic waste combined

For each selected, please complete the volume tracking table:

Please specify material type	What quantity of non-hazardous waste was generated by this source in 2017?	Quantity <i>Unit of Measure</i>	Which method was used to track this waste source?	How was this waste disposed of?	Provide Any Additional Comments
<i>Auto-populate from selections above</i>	<i>Numeric</i>	<i>Kilograms Liters Tons Other (please specify)</i>	<i>Weighed Estimated</i>	<ul style="list-style-type: none"> <li>• Reuse</li> <li>• Recycled</li> <li>• Energy recovery</li> <li>• Incinerated</li> <li>• Onsite incineration</li> <li>• Landfill</li> <li>• Onsite landfill/dumping</li> <li>• Physical-chemical-biological treatment (please specify)</li> <li>• Other (please specify)</li> </ul>	
<i>Add new row +</i>					

**2. Which hazardous waste streams does your site produce? Select all that apply:**

Production Waste

- Empty chemical drums and containers
- Film and Printing Frame
- Wastewater treatment sludge (industrial / domestic)
- Expired / unused / used chemicals (waste oil, solvents, reactants, etc...)
- Compressed Gas Cylinders (refrigerants, etc.)
- Contaminated materials (please specify)
- Other (please specify)

Domestic Waste

- Batteries
- Fluorescent light bulb
- Ink cartridges
- Waste oil and grease (from cooking)
- Empty containers (cleaning, sanitizing, pesticides, etc...)
- Electronic Waste
- Coal combustion residuals (fly ash and bottom ash/coal slag)
- Other (please specify)

*Hint: You will receive full points if you are completely tracking all hazardous waste sources AND are disposing of hazardous wastes through a licensed and permitted hazardous waste contractor. Please refer to the guidance documents for information on reporting on drums or barrels.*

*Suggested Upload: Hazardous waste manifests*

**For each selected, please complete the volume tracking table:**

Source	What quantity of hazardous waste was generated by this source in 2017?	Which method was used to track this waste source?	How was this waste disposed of?	Are all hazardous waste transporters, treatment, and disposal facilities licensed and permitted? <i>If there are no legal regulations for hazardous waste in your area, choose "Not Applicable"</i>	Describe your waste management and disposal processes for this source
<i>Auto-populate from selections above</i>	<i>Quantity Unit of Measure</i>	<i>Weighed Estimated</i>	<ul style="list-style-type: none"> <li>• Reuse</li> <li>• Recycled</li> <li>• Energy recovery</li> <li>• Incineration</li> <li>• Onsite incineration</li> <li>• Landfill</li> <li>• Onsite landfill/dumping</li> </ul>	Yes No NA (no legal regulations for hazardous waste)  <i>Upload a copy of the permit</i>	

			<ul style="list-style-type: none"> <li>Physical-chemical-biological treatment</li> <li>Other (please specify)</li> </ul>		
Add new row +					

**3. Does your facility segregate all waste streams into non-hazardous and hazardous waste, and store them separately?**

- Yes
- No
- Unknown

*Please answer Yes if you segregate hazardous and non-hazardous waste for appropriate management.*

*Suggested Upload: Photos of segregated storage sites*

**4. Does your facility have well-marked, designated hazardous waste storage areas?**

- Yes
- No
- Unknown

*Hazardous wastes pose a greater risk to the environment and human health than non-hazardous wastes and thus require a stricter control regime. It's important to segregate hazardous wastes and secure storage areas and containers to eliminate risk to workers and the environment.*

*Suggested Upload: Photos of segregated storage sites*

The hazardous waste storage area is ventilated, dry and protected from the weather, and fire risk.

- Yes
- No

The hazardous waste storage area is protected from unauthorized employees (i.e. locked).

- Yes
- No

The hazardous waste storage area is clearly marked.

- Yes
- No

Storage containers are in good condition, appropriate for their contents, closed and clearly labeled with their contents.

- Yes
- No



Where liquid wastes are stored, the floor is solid and non-porous, containers have lids, there are no water drains that the liquid could spill into, and there is no evidence of spilled liquid.

- Yes
- No

Flammable substances are kept away from sources of heat or ignition, including the use of grounding and explosion-proof lighting.

- Yes
- No

**5. Does your facility have well-marked, designated non-hazardous waste storage areas?**

- Yes
- No
- Unknown

*Non-hazardous wastes can pose contamination risks (e.g., pollution, waste being dispersed by the wind, food waste leachate) and risks to workers (e.g., fire, sharp objects).*

The non-hazardous waste storage area is ventilated, dry and protected from the weather, and fire risk.

- Yes
- No

The non-hazardous waste storage area is protected from unauthorized employees (i.e. locked).

- Yes
- No

The non-hazardous waste storage area is clearly marked

- Yes
- No

Storage containers are in good condition, appropriate for their contents, closed and clearly labeled with their contents.

- Yes
- No

Where liquid wastes are stored, the floor is solid and non-porous, containers have lids, there are no water drains that the liquid could spill into, and there is no evidence of spilled liquid.

- Yes
- No

Flammable substances are kept away from sources of heat or ignition, including the use of grounding and explosion-proof lighting.

- Yes
- No

**6. Does your facility forbid open burning and dumping on-site?**

**Open burning is forbidden**

- Yes
- No

If open burning is not forbidden, please describe the technology used and how you control air emissions

**Open dumping is forbidden**

- Yes
- No

If open dumping is not forbidden, please describe the technology used and how you control air emissions

*Burning waste on facility premises (inside or outside) with no air emissions control equipment and without special authorization from your environmental legal agency should be forbidden. If you do incinerate on-site, please explain the technology, the approval process, and how you control air emissions in the comment field provided.*

**7. Does your site provide training to all employees whose work involves hazardous waste handling (such as maintenance and custodial staff)?**

- Yes
- Partial Yes
- No
- Unknown

**If yes, please select all topics included in your training:**

- Proper handling
- Storage and disposal techniques and procedures
- Specific operational procedures for waste minimization
- Use of personal protective equipment
- Other, please specify

*You will be awarded full points if all topics were included in your training. If some, but not all, topics were included you will be awarded partial points*

*Suggested Upload: List of trained individuals, training materials (including calendar), certifications*

## Waste – Level 2

**8. Has your facility set a baseline for solid waste? If yes, select all sources of waste for which your facility has set a baseline:**

*In order to demonstrate improvements or reductions, it's important to know what your starting point is. A "baseline" is a starting point or benchmark that you can use to compare yourself against over time. For example, if your factory produced 15 kg of domestic waste per product in 2016, you will be able to compare your performance against this amount in years to come. In this example, "15 kg of domestic waste per product in 2016" is an example of a normalized baseline. Please note that you may need to set separate baselines for total amount of waste generated and disposal method.*

Waste Source (fills from source selections above)	Is the baseline absolute or normalized?	What is the baseline quantity? <i>If you are reporting a normalized baseline, it must be normalized by the production unit you specified in the Site Info section. Please make sure your normalization calculation reflects your production volumes from your baseline year, not from 2017.</i>	Enter the baseline year	How was your baseline calculated?	Was the baseline verified?
Source	Normalized Absolute	Quantity Unit of Measure <ul style="list-style-type: none"> <li>• g</li> <li>• kg</li> <li>• lb</li> <li>• oz</li> <li>• ton (metric)</li> <li>• ton (short)</li> <li>• barrels (16 kg/ea)</li> <li>• CCF</li> <li>• cu ft</li> <li>• cu yard</li> <li>• gal</li> <li>• liter</li> <li>• M3</li> <li>• MI</li> </ul> If other, please specify:	Dropdown of years	Open text	If yes, tell us date and auditing party. Not req
+ Add new row					

**Did you set a baseline for waste disposal methods for your facility's overall waste?**

- Yes
- No

If yes, indicate which methods.

Waste Source (fills from source selections above)	What is the baseline quantity? <i>Enter the percentage of your facility's waste source that was disposed using this method</i>	Enter the baseline year	How was your baseline calculated?	Was the baseline verified?
Source	Normalized Absolute	Dropdown of years	Open text	If yes, tell us date and auditing party. Not req
+ Add new row				

### 9. Does your facility set formal targets to reduce waste quantity?

- Yes
- No
- Unknown

**Select all sources of waste for which your facility has set a quantity or improvement target.**

*You will receive full points if you set targets for waste streams that make up 80% or more of your total waste generated. You will receive partial points if you set targets for waste sources that make up 50-79% or more of your total waste generated. This is to reward you for aiming to reduce your greatest sources of waste generation which will maximize environmental impact.*

If yes, please tell us about your targets: (tool auto-calculates)

Select source targeted to be improved (select one)*	M3 (auto-populated from total above)	Action Taken	What is your target change for waste generated from this source? <i>Enter a negative percentage for a reduction target, and a positive percentage for an increase target</i>	Normalized or Absolute Target? (select one)	What is the target year?	Proposed kg reduction	Describe the measures planned to achieve this target
<i>Total waste &lt;select from dropdown of your waste sources (e.g., plastic, glass, etc.)&gt;</i>		Eliminate or reduce waste generation at the source; Reuse waste (without any modification of the waste); Increase quantity of waste recycling; Use another treatment that	<b>-10%</b>	<b>Select one:</b> <b>Normalized</b> <b>Absolute</b> <b>Other</b>  Guidance: The target setting should allow the facilities to express and set their own targets which may not fall			<b>Text</b>

		have lower impact on the environment (e.g., energy recovery), please describe.		in absolute or normalized target.			
+ Add new rows							<i>Text</i>
<b>TOTAL</b>	Xm3					Xkg	

**Did you set a target for improving waste disposal methods for your facility's overall waste?**

- Yes
- No

If yes, indicate which methods.

*Examples of improvements to disposal methods include: Eliminate or reduce waste generation at the source; Reuse waste (without any modification of the waste); Increase quantity of waste recycling; Use another treatment that has lower impact on the environment (e.g., energy recovery)*

Select source targeted to be improved (select one)*	M3 (autopopulated from total above)	Action Taken	What is your target change for this method of disposal? <i>Enter a negative percentage for a reduction target, and a positive percentage for an increase target</i>	Normalized or Absolute Target? (select one)	What is the target year?	Proposed kg reduction	Describe the measures planned to achieve this target
<i>Total waste &lt;select from dropdown of your waste sources (e.g., plastic, glass, etc)&gt;</i>		Eliminate or reduce waste generation at the source; Reuse waste (without any modification of the waste); Increase quantity of waste recycling; Use another treatment that have lower	<b>-10%</b>	<b>Select one: Normalized Absolute Other</b>  Guidance: The target setting should allow the facilities to express and set their own targets which may not fall in absolute or			<i>Text</i>

		impact on the environment (e.g., energy recovery), please describe.		normalized target.			
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**10. Does your facility have an implementation plan to reduce waste quantity or improve type of treatment?**

- Yes
- Partial Yes
- No
- Unknown

*Please answer Yes if you have an implementation plan in place that demonstrates you are taking action to achieve your targeted reductions or improvements. Please choose Partial Yes if you have a plan but have not started on all action items. You may download a sample implementation plan here:*

*[https://www.dropbox.com/s/fm2ilfjcqnw93ew/Template\\_Implementation%20Plan.xlsx?dl=0](https://www.dropbox.com/s/fm2ilfjcqnw93ew/Template_Implementation%20Plan.xlsx?dl=0)*

Upload a copy of the plan.

*This should be a waste reduction plan showing specific actions designed to achieve targeted reductions in waste consumption*

**11. Has your facility reduced waste quantity or improve type of treatment, compared with the established baseline, in 2017?**

- Yes
- No
- Unknown

*You will receive full points if you made reductions for waste sources that make up 80% or more of your total waste generated. You will receive partial points if you made reductions for waste sources that make up 50-79% or more of your total waste generated. This is to reward you for reducing your greatest sources of waste which will maximize environmental impact.*

*We recommend that you show normalized reductions such as “hazardous waste per product was reduced by 80% in 2017”. This is because normalized metrics show real improvement rather than reductions from business changes such as reduced production.*

Select all sources of waste for which your facility made improvements.

**If yes, complete this table:**

Select source that was reduced	Select baseline year	Indicate your facility's change in waste quantity from this source	Describe the strategies used to achieve this improvement

		Enter a negative number for a reduction, and a positive number for an increase	
Populate dropdown of options from table above		Quantity Unit of Measure Kilograms Liters Tons %	
+ Add new rows			

### Waste – Level 3

**12. Does your facility validate the final disposal and treatment of all hazardous wastes?**

- Yes
- No
- Unknown

If yes, upload supporting documentation.

**Describe how you work with your facility’s waste contractors to ensure appropriate disposal during the waste treatment.**

*Hazardous waste poses serious risk to the environment when improperly treated and disposed of. It is considered leading practice for a facility to take extra steps to confirm that their waste contractors are properly transporting, storing, treating and disposing of hazardous wastes from your facility site. Facilities should screen, validate and check contractors every three years.*

**13. Has your factory diverted at least 90 percent of all discarded materials from landfills, incinerators and the environment?**

- Yes
- No
- Unknown

Please describe how this is implemented.

*Zero waste to landfill is defined as diverting 90% of all discarded materials from landfills, incinerators and the environment. If you can demonstrate that you divert 90% or more of all waste please answer Yes to this question.*

*Suggested Upload: Waste inventory and waste manifests showing >90% diversion from landfills/incinerators*

**14. Does your facility upcycle some of its waste or insert its waste into a circular economy system?**

- Yes
- No
- Unknown

If yes, describe how.

*Suggested Upload: Pictures or process flows, showing type and amounts of waste that are recycled into products of the same or higher value*

## Section 6. Air Emissions

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### **Applicability Test**

To determine whether you need to complete the questions in the Air Emissions section, we must evaluate whether your factory has relevant sources of air emissions. Air emissions can be from materials processing equipment AND/OR boilers that generate steam for operations.

**1. Please select whether your factory contains any of the following:**

- Boiler
  - If selected, tell us size:
    - Small: less than 50 MW
    - Medium: 50 MW - 300 MW
    - Large: more than 300 MW
- Generators
- Engines
- Ovens
- Heating and ventilation
- Refrigerant device
- Air conditioning
- Other sources of known air emissions from facility operations

If any of the above are selected: ***Has Operating emissions - proceed to applicability question 2. Refrigerants will have own table.***

- Yarn spinning or synthetic fiber manufacturing
- Finishes
- Solvents
- Adhesives/cementing
- Printing
- Dyeing
- Tenterframes or other heating process
- Sprayed chemicals or paints
- Spot cleaners
- Other sources of known air emissions from production processes



If any of the above are selected: **Has production emissions**

**If none of the above options apply. Skip entire section.**

2) [In permits section] Is an air emissions permit required?

If no, **proceed to air section Level 1**

If yes, are you in compliance with your permit?

- If yes, **proceed to air 1.2**
- If no, **proceed to air section 1.1** to track sources and limits.

APPLICABILITY	Have emissions from operations	Have emissions from production	Have emissions from refrigerant devices/cooling
1. Does your factory have any air emissions from facility operations	x		
2. Select all sources of air emissions that result from production processes		x	
3. Did your facility add additional refrigerants to any existing equipment in 2017			x
4. Does your facility have control devices or abatement processes for on-site emissions to air? If yes, select all sources of emissions that have abatement processes.	x		
5. Does your facility have control devices or abatement processes for indoor air quality issues from production processes? If yes, select all sources of air quality issues that have abatement processes		x	
6. Has your facility gone beyond permit requirements to achieve a higher level of air performance in Nitrogen Oxides (NO <sub>x</sub> ), Sulfur Oxides (SO <sub>x</sub> ), and Particulate Matter (PM)?	x		
7. Do you have a process for implementing modernized equipment to reduce or eliminate air emissions and indoor air quality issues at your facility	x	x	

### Air Emissions – Level 1

**1. Does your factory have any air emissions from facility operations that:**

- Are not regulated by a permit?
  - Yes
  - No
- Are regulated by a permit, but you are not in compliance.
  - Yes
  - No

**Select all sources of air emissions relevant to your facility's operations that are not regulated by a permit, or for which your facility is not in compliance with its permit**

*Since you demonstrated compliance with your air permit in the Permits section, please only enter data for emissions that are not tracked by a permit or that are not in compliance with a permit. This question excludes emissions from production processes.*

Source	What equipment is this source linked to?	What pollutants are present that are not regulated by a permit or have been found to be out of compliance with a permit?	Reason for reporting pollutant	What quantity of air emissions were emitted by this source in 2017?	Is this source of emissions regulated by a government agency?	If yes, what is the compliance status of the source?	If your facility is out of compliance, how long have you had this problem?	If your facility is out of compliance, upload the action plan for the substance detected	If you cannot upload a copy, please describe the action plan:
Stack Vent Heating and ventilation Refrigerant device Air conditioning Other sources of known air emissions :	Type	Particulate Matter 10 (PM 10) Particulate Matter 2.5 (PM 2.5) Nitrogen Oxides (NOx) Sulphur Oxides (SOx) Volatile Organic Compounds (VOCs)	Out of compliance with permit Not regulated by a permit	Quantity Units G Kg Lb Oz ton (metric) ton (short)	Yes No Unknown	In compliance Out of compliance	0-3 months 3+ months	Type or upload	

		Ozone Depleting Substances (ODS) Other toxic air pollutants, please describe Water vapor/steam							
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**2. Select all sources of air emissions that result from production processes**

*This question tracks the presence of indoor air quality emissions from production processes. This includes fugitive sources from production processes (sources without a chimney that emit into the building outside through windows, doors, etc.).*

*Permit compliance does not apply to this question, as indoor air quality emissions are infrequently regulated.*

Source (Refrigerant Type)	What pollutants are known or likely to be present?	What quantity of air emissions were emitted by this source in 2017?	What method was used to track emissions from this source?	Provide any additional comments
<i>Auto-populate selections from applicability test on production steps</i>	<i>Text</i>	Quantity Unit <ul style="list-style-type: none"> <li>• G</li> <li>• Kg</li> <li>• Lb</li> <li>• Oz</li> <li>• ton (metric)</li> <li>• ton (short)</li> </ul>	Tested Estimated	

**3. Did your facility add additional refrigerants to any existing equipment in 2017?**

*Hint: Having to add refrigerants to existing equipment indicates the system has a leak. If CFC-based refrigerants are maintained in the building, you must reduce annual leakage to 5% or less and reduce the total leakage over the remaining life of the equipment to less than 30% of its refrigerant charge.*

*This question will contribute to your GHG-emissions calculation so it's important for you to enter accurate data about leak quantities. Please note that your GHG result is intended to provide directional insight into your opportunities to improve, but is not a formal GHG calculation to be used for public reporting.*

Select Refrigerant	Quantity of Refrigerant Added to Existing Equipment in 2017 (exclude refrigerant added to newly purchased equipment for the first time)	Units:	What method was used to track emissions from this source?	What is your plan for fixing this leak?
R-10 (PCC) R-11 (CFC) R-12 (CFC) R-12B1 (H) R-12B2 (H) R-13 (CFC) R-13B1 (H) R-14 (PFC) R-20 (HCC) R-21 (HCFC) R-22 (HCFC) R-22B1 (H) R-23 (HFC) R-30 (HCC) R-31 (HCFC) R-32 (HFC) R-40 (HCC) R-41 (HFC) R-50 (HC) R-110 (PCC) R-111 (CFC) R-112 (CFC) R-112a (CFC) R-113 (CFC) R-113a (CFC) R-114 (CFC) R-114a (CFC) R-114B2 (H) R-115 (CFC) R-116 (PFC)	<i>Numeric</i>	<i>Volume units</i>	<i>Measured Calculated Leakage Rate Estimated</i>	

R-120 (HCC)				
R-121 (HCFC)				
R-121a (HCFC)				
R-122 (HCFC)				
R-122a (HCFC)				
R-122b (HCFC)				
R-123 (HCFC)				
R-123a (HCFC)				
R-123b (HCFC)				
R-124 (HCFC)				
R-124a (HCFC)				
R-125 (HFC)				
R-E125 (HFC)				
R-130 (HCC)				
R-130a (HCC)				
R-131 (HCFC)				
R-131a (HCFC)				
R-131b (HCFC)				
R-132 (HCFC)				
R-132a (HCFC)				
R-132b (HCFC)				
R-132c (HCFC)				
R-132bB2 (H)				
R-133 (HCFC)				
R-133a (HCFC)				
R-133b (HCFC)				
R-134 (HFC)				
R-134a (HFC)				
R-E134 (HFC)				
R-140 (HCC)				
R-140a (HCC)				
R-141 (HCFC)				
R-141B2 (H)				
R-141a (HCFC)				
R-141b (HCFC)				

R-142 (HCFC)				
R-142a (HCFC)				
R-142b (HCFC)				
R-143 (HFC)				
R-143a (HFC)				
R-143m (HFC)				
R-E143a (HFC)				
R-150 (HCC)				
R-150a (HCC)				
R-151 (HCFC)				
R-151a (HCFC)				
R-152 (HFC)				
R-152a (HFC)				
R-160 (HCC)				
R-161 (HFC)				
R-170 (HC)				
R-E170 (HC)				
R-211 (CFC)				
R-212 (CFC)				
R-213 (CFC)				
R-214 (CFC)				
R-215 (CFC)				
R-216 (CFC)				
R-216ca (CFC)				
R-217 (CFC)				
R-217ba (CFC)				
R-218 (PFC)				
R-221 (HCFC)				
R-222 (HCFC)				
R-222c (HCFC)				
R-223 (HCFC)				
R-223ca (HCFC)				
R-223cb (HCFC)				
R-224 (HCFC)				
R-224ca (HCFC)				

R-224cb (HCFC)				
R-224cc (HCFC)				
R-225 (HCFC)				
R-225aa (HCFC)				
R-225ba (HCFC)				
R-225bb (HCFC)				
R-225ca (HCFC)				
R-225cb (HCFC)				
R-225cc (HCFC)				
R-225da (HCFC)				
R-225ea (HCFC)				
R-225eb (HCFC)				
R-226 (HCFC)				
R-226ba (HCFC)				
R-226ca (HCFC)				
R-226cb (HCFC)				
R-226da (HCFC)				
R-226ea (HCFC)				
R-227ca (HFC)				
R-227ca2 (HFC)				
R-227ea (HFC)				
R-227me (HFC)				
R-231 (HCFC)				
R-232 (HCFC)				
R-232ca (HCFC)				
R-232cb (HCFC)				
R-233 (HCFC)				
R-233ca (HCFC)				
R-233cb (HCFC)				
R-233cc (HCFC)				
R-234 (HCFC)				
R-234aa (HCFC)				
R-234ab (HCFC)				
R-234ba (HCFC)				
R-234bb (HCFC)				

R-234bc (HCFC)				
R-234ca (HCFC)				
R-234cb (HCFC)				
R-234cc (HCFC)				
R-234cd (HCFC)				
R-234da (HCFC)				
R-234fa (HCFC)				
R-234fb (HCFC)				
R-235 (HCFC)				
R-235ca (HCFC)				
R-235cb (HCFC)				
R-235cc (HCFC)				
R-235da (HCFC)				
R-235fa (HCFC)				
R-236cb (HFC)				
R-236ea (HFC)				
R-236fa (HFC)				
R-236me (HFC)				
R-FE-36 (HFC)				
R-241 (HCFC)				
R-242 (HCFC)				
R-243 (HCFC)				
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R-243cb (HCFC)				
R-243cc (HCFC)				
R-243da (HCFC)				
R-243ea (HCFC)				
R-243ec (HCFC)				
R-244 (HCFC)				
R-244ba (HCFC)				
R-244bb (HCFC)				
R-244ca (HCFC)				
R-244cb (HCFC)				
R-244cc (HCFC)				
R-244da (HCFC)				



R-244db (HCFC)				
R-244ea (HCFC)				
R-244eb (HCFC)				
R-244ec (HCFC)				
R-244fa (HCFC)				
R-244fb (HCFC)				
R-245ca (HFC)				
R-245cb (HFC)				
R-245ea (HFC)				
R-245eb (HFC)				
R-245fa (HFC)				
R-245mc (HFC)				
R-245mf (HFC)				
R-245qc (HFC)				
R-251 (HCFC)				
R-252 (HCFC)				
R-252ca (HCFC)				
R-252cb (HCFC)				
R-252dc (HCFC)				
R-252ec (HCFC)				
R-253 (HCFC)				
R-253ba (HCFC)				
R-253bb (HCFC)				
R-253ca (HCFC)				
R-253cb (HCFC)				
R-253ea (HCFC)				
R-253eb (HCFC)				
R-253ec (HCFC)				
R-253fa (HCFC)				
R-253fb (HCFC)				
R-253fc (HCFC)				
R-254cb (HFC)				
R-254pc (HFC)				
R-261 (HCFC)				
R-261ba (HCFC)				

R-262 (HCFC)				
R-262ca (HCFC)				
R-262fa (HCFC)				
R-262fb (HCFC)				
R-263 (HFC)				
R-271 (HCFC)				
R-271b (HCFC)				
R-271d (HCFC)				
R-271fb (HCFC)				
R-272 (HFC)				
R-281 (HFC)				
R-290 (HC)				
R-C316 (CFC)				
R-C317 (CFC)				
R-C318 (PFC)				
R-3-1-10 (PFC)				
R-329ccb (HFC)				
R-338eea (HFC)				
R-347ccd (HFC)				
R-347mcc (HFC)				
R-347mmy (HFC)				
R-365mfc (HFC)				
R-4-1-12 (PFC)				
R-5-1-14 (PFC)				
R-400 (CFC)				
R-401A (HCFC)				
R-401B (HCFC)				
R-401C (HCFC)				
R-402A (HCFC)				
R-402B (HCFC)				
R-403A (HCFC)				
R-403B (HCFC)				
R-404A (HFC)				
R-405A (HCFC)				
R-406A (HCFC)				

R-406B (HCFC)				
R-407A (HFC)				
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R-407D (HFC)				
R-407E (HFC)				
R-407F (HFC)				
R-408A (HCFC)				
R-409A (HCFC)				
R-409B (HCFC)				
R-410A (HFC)				
R-410B (HFC)				
R-411A (HCFO)				
R-411B (HCFO)				
R-411C (HCFO)				
R-412A (HCFC)				
R-413A (HFC)				
R-414A (HCFC)				
R-414B (HCFC)				
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R-415B (HCFC)				
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R-417A (HFC)				
R-417B (HFC)				
R-418A (HCFC)				
R-419A (HFC)				
R-420A (HCFC)				
R-421A (HFC)				
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R-432A (HO)				
R-433A (HO)				
R-433B (HO)				
R-433C (HO)				
R-434A (HFC)				
R-435A (HFC)				
R-436A (HC)				
R-436B (HC)				
R-437A (HFC)				
R-438A (HFC)				
R-439A (HFC)				
R-440A (HFC)				
R-441A (HC)				
R-500 (HCFC)				
R-501 (HCFC)				
R-502 (CFC)				
R-503 (HCFC)				
R-504 (HCFC)				
R-505 (HCFC)				
R-506 (HCFC)				
R-507[A] (HFC)				
R-508[A] (HFC)				
R-508B (HFC)				
R-509[A] (HCFC)				
R-510[A] (HC)				
R-511[A] (HC)				
R-600 (HC)				
R-600a (HC)				

R-601 (HC)				
R-601a (HC)				
R-610 (HC)				
R-611 (HC)				
R-630				
R-631				
R-702				
R-704				
R-717				
R-718				
R-720				
R-728				
R-729				
R-732				
R-740				
R-744				
R-744A				
R-764				
R-784				
R-1112a (CFO)				
R-1113 (CFO)				
R-1114 (PFO)				
R-1120 (HCO)				
R-1130 (HCO)				
R-1132a (HFO)				
R-1140 (HCO)				
R-1141 (HFO)				
R-1150 (HO)				
R-1216 (PFO)				
R-1218 (PFO)				
R-1233zd (HCFO)				
R-1234yf (HFO)				
R-1234ze (HFO)				
R-1270 (HO)				

**4. Does your facility have control devices or abatement processes for on-site emissions to air? If yes, select all sources of emissions that have abatement processes.**

*Please answer Yes only if you have control device(s) installed and in operation. If you have evidence of plans to install control devices, please choose Partial Yes. This question does not include controls for indoor air quality emissions from production processes.*

*Suggested Upload: Emission testing records from control devices or abatement processes.*

Source	What control device, abatement process, or safety equipment was used for this source of air emissions?	What was the frequency of monitoring?	Provide any additional comments
Stack Vent Refrigerant device Heating and ventilation Air conditioning	Text	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually	

**5. Does your facility have control devices or abatement processes for indoor air quality issues from production processes? If yes, select all sources of air quality issues that have abatement processes.**

*Please answer Yes only if you have control device(s) installed and in operation. If you have evidence of plans to install control devices, please choose Partial Yes.*

*Suggested Upload: Emission testing records from control devices or abatement processes.*

Source	What control device, abatement process, or safety equipment was used for this source of air emissions?	What was the frequency of monitoring?	Provide any additional comments
Auto-populate selections from applicability test on production steps	Text	Continuously Daily Weekly Monthly Bimonthly Quarterly Annually	

## Air Emissions – Level 2

**6. Has your facility gone beyond permit requirements to achieve a higher level of air performance in Nitrogen Oxides (NOx), Sulfur Oxides (SOx), and Particulate Matter (PM)?**

- Yes
- No

**If yes, specify the level.**

- Level 1: Foundational
- Level 2: Strategic
- Level 3: Aspirational

Upload emissions testing results for PM, SO<sub>2</sub>, and NO<sub>x</sub>

*Please refer to the air standard in the guidance document to determine if you've met a foundational, strategic, or aspirational level of air emissions performance.*

## Air Emissions – Level 3

**7. Do you have a process for implementing modernized equipment to reduce or eliminate air emissions and indoor air quality issues at your facility?**

- Yes
- No
- Unknown

Please upload documentation if available

If you cannot upload the documents, please describe here:

*Please select Yes if you have a documented plan to upgrade machinery or if all machinery has been upgraded to the most modern version as that is one of the best ways to control pollutants and achieve a higher level of air performance.*

*Upload: Documentation of plans/process for equipment upgrades or documentation of recent upgrades*

## Section 7. Chemicals Management

### Applicability Test

The following questions are used to determine which chemicals questions apply to your facility and do not contribute to your score.

Does your facility perform any of the following processes?

- Yes
- No

Select all of the processes performed at your facility:

- Dyeing or other wet processing
- Printing
- Laundry or washing
- Cementing or gluing
- Fiber extrusion or yarn spinning
- Slashing during weaving
- Leather tanning
- Lamination
- Metal Finishing
- Welding
- Other production processes that require chemicals

If any are selected, you are a facility that **uses chemicals in production processes.**

If none are selected, you are a facility that **uses chemicals in facility tooling and/or operations only**

	Uses chemicals in production	Uses chemicals in operations / tooling
1. Does your facility keep an inventory of chemicals used and the suppliers of each chemical product?	X	X (NA for non-tooling)
2. Does your facility make Safety Data Sheets (SDS) available to employees for all chemicals used?	X	X (NA for non-tooling)
3. Does your facility train all employees who use chemicals on chemical hazards, risk, proper handling, and what to do in case of emergency or spill?	X	X
4. Does your facility have a chemical spill and emergency response plan that is practiced periodically?	X	X (NA (for non-tooling)
5. Does your facility have appropriate and operable protective and safety equipment, as recommended by the Global Harmonization System compliant (or equivalent) Safety Data Sheet, in all areas where chemicals are stored and used?	X	X



6. Does your facility have chemical hazard signage and safe handling equipment in the areas of the facility where chemicals are used?	X	X
7. Does your facility select and purchase chemicals based on their hazards and MRSL / RSL requirements?	X	X
8. Does your facility have an environmental and occupational health and safety program specific to chemicals management?	X	X
9. Does your facility have well marked, designated chemical storage and temporary storage areas?	X	X
10. Does your facility train employees responsible for the chemical management system on Restricted Substance Lists (RSLs) and Manufacturing Restricted Substance Lists (MRSLs)?	X	
11. Does your facility have a documented process to systematically identify, monitor and verify compliance with all product Restricted Substance Lists (RSLs)?	X	
12. Does your facility have a documented process to systematically monitor, update and demonstrate compliance with Manufacturing Restricted Substance Lists (MRSLs)?	X	
13. Can all of your production chemicals be traced from the manufacturing process back to chemical inventory?	X	
14. Does your facility have an implementation plan to improve your chemicals management program?	X	X
15. Does your facility have an implementation plan to reduce the use of hazardous chemicals beyond chemicals specified by regulations and/or Restricted Substance Lists / Manufacturing Restricted Substance Lists?	X	X
16. Does your facility source already-approved or preferred chemicals from a positives list beyond chemicals specified by regulations and/or Restricted Substance Lists / Manufacturing Restricted Substance Lists?	X	X
17. Does your facility collaborate with brands and/or chemical suppliers to select chemicals for alternatives assessment?	X	X
18. Can your manufacturing process chemicals be traced from product lot number back to chemical lot number?	X	
19. Does your facility contribute a chemical analysis against human and environmental hazard criteria (e.g., persistent, bio-accumulative, and toxic) to this alternatives process?	X	
20. Does your facility contribute an analysis of lifecycle impacts to this alternatives process?	X	
21. Does your facility have a documented Quality Assurance (QA) Program that includes performance of chemicals?	X	

<p>22. Do your contractors/subcontractors source already-approved or preferred chemicals from a positives list to replace chemicals not already included in RSL/MRSL?</p>	<p>X</p>	
<p>23. Does your facility have documented business goals, processes and actions showing commitment (e.g., equipment, process, choice of substitute chemicals) to new sustainable chemistry innovation?</p>	<p>X</p>	

**Chemicals Management - Level 1**

**1. Does your facility keep an inventory of chemicals used and the suppliers of each chemical product?**

- Yes
- No
- Unknown
- Not Applicable

Please upload documentation if available.

**Check all types of chemicals included in the inventory**

- **All chemicals used in manufacturing processes (including chemicals in production, spot cleaners, and wastewater treatment plant chemicals where applicable)**
  - Yes
  - No
- **All chemicals used in tooling/equipment (lubricants and grease)**
  - Yes
  - No
- **All chemicals used to operate and maintain the facility**
  - Yes
  - No

*A complete chemical inventory includes: chemical name and type, supplier/vendor name and type, Safety Data Sheet (SDS) date of issuance, function, hazard classification, location used, storage conditions and location, quantities, CAS number(s), lot numbers, MRSL compliance, purchase date, and expiration dates (if applicable). You will be awarded full points if you have a complete inventory for all applicable chemicals in your facility. If you track all chemicals in a partial inventory, you will be awarded partial points. Similarly, if you have a detailed inventory but do not yet track all applicable chemicals, you will be awarded partial points.*

*For facilities that do not use chemicals in production: You should inventory all chemicals that are related to the manufacturing processes and tooling/equipment category, including spot cleaners, machine grease/lubricants, and effluent treatment plant chemicals. For facilities with only tooling/operations chemicals, If you do not have any chemicals that may touch product (e.g. cleaning products) and/or do not use chemicals to maintain or lubricate machines, you may select “not applicable”.*

*Upload: a) Chemical Inventory List; b) Safety Data Sheet (SDS), Global Harmonization System (GHS) compliant or equivalent; c) Permits where applicable for certain sensitive chemicals to be stored or used (e.g. explosive materials); d) List of purchased chemicals and corresponding purchase records for the past full year.*

**1b. Does your facility's chemical inventory include chemical identification data? Check all that apply:**

- Chemical name and type
- Supplier/vendor name and type
- Safety Data Sheet (SDS), Global Harmonization System (GHS) compliant or equivalent
- Function
- Hazard classification
- Where used
- Storage conditions and location
- Quantities

**1c. Does your facility's chemical inventory include the following data? Select all that apply:**

- CAS number or numbers (when in a mixture)

- Lot numbers
- MRSL compliance
- Purchase date
- Expiration dates (if applicable)

**For data not included in your facility's chemical inventory, is there an action plan for obtaining this data?**

- Yes
- No

Upload your action plan for obtaining this data.

If you don't have a document to upload, describe your plan:

*Not all information needs to be in one single document, but it needs to be easily accessible in relevant documents (e.g., first in first out documentation)*

**CM-1a Applicability** (these tables do not contain new scoring information, but are intended to provide a visual of the applicability and yes/partial arrangements)

	Chem in Production		Chem in Tooling / Operations Only	
	Yes	Partial Yes	Yes	Partial Yes
<ul style="list-style-type: none"> <li>• All chemicals used in manufacturing processes (including chemicals in production, spot cleaners, and ETP chemicals where applicable)</li> </ul>	X	X (must select to move on)	X or NA	X or NA
<ul style="list-style-type: none"> <li>• All chemicals used in tooling/equipment (lubricants and grease)</li> </ul>	X	X (able to move on without)	X or NA	X or NA
<ul style="list-style-type: none"> <li>• All chemicals used to operate and maintain the facility</li> </ul>	X	(able to move on without)	X	

**CM-1b and 1c Applicability**

	Chem in Production		Chem in Tooling / Operations Only	
	Yes	Partial Yes	Yes	Partial Yes
<b>CM-1b:</b> Chemical name and type Supplier/vendor name and type Safety Data Sheet (SDS), Global Harmonization	X	X	X	X

<p>System (GHS) compliant or equivalent - availability and date of issuance          Function          Hazard classification          Where used          Storage conditions and location          Quantities</p>				
<p><b>CM-1c:</b>          CAS number or numbers          Lot numbers (quantities are recorded in batch #)          MRSL compliance          Purchase date          Expiration dates (if applicable)</p>	<p>X (must complete for full points)</p>	<p>(able to move on without - half points)</p>	<p>X (must complete for full points)</p>	<p>(able to move on without - half points)</p>

**2. Does your facility make Safety Data Sheets (SDS) available to employees for all chemicals used?**

- Yes
- Partial Yes
- No
- Unknown
- Not Applicable

Please upload documentation if available.

**Are Safety Data Sheets posted where hazardous chemicals are stored?**

- Yes
- No

**Are Safety Data Sheets available in languages workers understand (at least sections directly related to operational worker safety and storage requirements, such as first aid, hazard, and flammability information)?**

- Yes
- No

*Safety Data Sheets must be Global Harmonization System (GHS) compliant. Please select “partial yes” if you meet Safety Data Sheet requirements, but they are not yet GHS-compliant.*

*For facilities that do not use chemicals in production: Safety Data Sheets are required for all chemicals that are related to the manufacturing processes and tooling/equipment category, including spot cleaners, machine grease/lubricants, and effluent treatment plant chemicals. If you do not have any chemicals that may touch product (e.g. cleaning products) and/or do not use chemicals to maintain or lubricate machines, you may select “not applicable”.*

*Upload: a) Chemical inventory list (skip if previously uploaded); b) Safety Data Sheet (SDS), Global Harmonization System (GHS) compliant or equivalent (skip if previously uploaded); c) Globally Harmonized System - Classification, Labelling and Packaging (GHS CLP); d) Emergency Response Plans; e) Documentation of Spill Control/Containment equipment; f) Documentation of Appropriate PPE being utilized by the workforce; g) Training documentation*

**3. Does your facility train all employees who use chemicals on chemical hazards, risk, proper handling, and what to do in case of emergency or spill?**

- Yes
- Partial Yes
- No
- Unknown

If yes, please upload supporting documentation.

*Upload: a) Sample training; b) Training calendar; c) Employee training attendee list*

**4. Does your facility have a chemical spill and emergency response plan that is practiced periodically?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

**Does your facility keep records of all employee and environmental incidents related to chemical spills and emergency response?**

- Yes
- Partial Yes
- No
- Unknown

*Chemical spill and emergency response plans must meet detailed requirements as specified in guidance, and all workers must participate in a practice drill twice a year. Please select Partial Yes if you have a chemical spill and emergency response plan, but that does not yet meet all requirements or you do not have practice drills. For facilities that do not use chemicals in production: Answer Yes if you meet requirements for chemicals and spill response plans, however twice-annual practice drills are not required.*

*Upload: Emergency response plan/procedure (skip if previously uploaded).*



**5. Does your facility have appropriate and operable protective and safety equipment, as recommended by the Global Harmonization System compliant (or equivalent) Safety Data Sheet, in all areas where chemicals are stored and used?**

- Yes
- No
- Unknown

Please upload documentation if available.

*Protective and safety equipment may include spill response kits (size, type and location appropriately adapted for the chemical), showers and eyewash tested regularly, fire extinguishers maintained regularly, adapted Personal Protective Equipment (PPE) appropriate for the chemical (based on MSDS/SDS) such as appropriate gloves, protective masks, long handle scoops, etc.*

*Equipment should follow specifications in the GHS-compliant or equivalent Safety Data Sheet, be clearly visible for all relevant workers (e.g., not stored in a storage cupboard with locks; and in close proximity to the relevant area), well-maintained, and checked regularly for functionality by relevant staff. There is no Partial Yes option for this question.*

*For facilities that do not use chemicals in production: This applies to all chemicals that are related to the manufacturing processes, tooling/equipment category, and operating chemicals that do not touch product.*

*Upload: a) Schedule for internal checks/audit for chemical safety that covers relevant chemical exposure risks and safety equipment, with clear designation of responsibilities and outcome of the checks/audits; b) Inventory list of PPEs and safety equipment with schedules of stock replenishments, equipment maintenance or replacements, where applicable (skip if previously uploaded).*

**6. Does your facility have chemical hazard signage and safe handling equipment in the areas of the facility where chemicals are used?**

- Yes
- No
- Unknown

Please upload documentation if available.

*Your facility should post signage at all areas where chemicals are stored or used. Signage should depict the hazard classification(s) of chemicals. The most critical areas for signage include: receiving and delivery, chemical storage areas (centralized warehouse and temporary storage areas), chemical process areas, manufacturing/production areas, waste chemicals storage (including chemical residues and expired chemicals), and laboratories, toolshop, maintenance areas. Handling equipment should be available at relevant locations and correspond with the safety requirement and hazard communication/signage for each particular chemical. There is no Partial Yes option for this question.*

*For facilities that do not use chemicals in production: This applies to all tooling and operations chemicals in your factory.*

*Upload: Schedule for internal checks/audit for chemical safety that covers relevant chemical exposure risks and communication (signage placement and updates), with clear designation of responsibilities and outcome of the checks/audits (skip if previously uploaded)*

**7. Does your facility select and purchase chemicals based on their hazards and MRSL / RSL requirements?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

**If yes, do all chemicals purchased and used in production meet the facility's chemical purchasing policy?**

- Yes
- No

**If no, do you have a process or plan for eliminating chemicals that do not meet the facility's chemical purchasing policy?**

- Yes
- No

Please describe the process or plan.

*MRSL is a Manufacturing Restricted Substance List. Facilities typically are aware of Restricted Substance Lists (RSL); however, the industry has recently evolved to focus on Manufacturing Restricted Substance Lists (MRSL) to further environmentally-friendly chemical use in addition to Restricted Substance Lists. MRSL is important because a facility that uses compliant chemicals, in accordance with technical specification directions, has better environmental outcomes for the various facility discharges as well as more consistent RSL material compliance.*

*Please answer Yes only if all chemicals purchased meet RSL/MRSL purchasing requirements and you have documentation to support this. Please select Partial Yes if you purchased chemical(s) that do not meet MRSL/RSL requirements, but you have a documented plan for eliminating these chemicals next year.*

*For facilities that do not use chemicals in production: All purchased chemicals must meet these requirements with documentation available that includes certificates of analysis for the composition and MSDS / SDS and technical data sheets where applicable. RSL should be included in your facility's purchasing to prevent violations from accidentally occurring, and it also relieves you from having to demonstrate a full RSL-compliance program in Higg.*

**8. Does your facility have an environmental and occupational health and safety program specific to chemicals management?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

*Chemicals health and safety programs must have a designated person or team, meet legal health and safety requirements, and have written procedures for chemical storage, handling, usage, disposal, and environmental controls for waste or discharge to the environment. Please select Partial Yes if your chemicals health and safety program is complete, but not yet documented in writing.*

*Upload: a) Letter of appointment, job description, organization chart; b) Curriculum Vitae of responsible person/team; c) Environmental Health and Safety procedures related to chemical storage, handling, usage, and disposal ; d)*

*Chemical Inventory with identified hazards with MSDS, technical sheets available to and used by Environmental Health and Safety personnel (skip if previously uploaded); e) Permits with operating limits and relevant laws governing health and safety requirement for chemical storage, operations, and disposal (skip if previously uploaded); f) Chemical accident and spill records (skip if previously uploaded); g) Health and Safety Log (First Aid and health station)*

**9. Does your facility have well marked, designated chemical storage and temporary storage areas?**

- Yes, it has both chemical storage and temporary storage areas
- Yes, it only has chemical storage areas
- No
- Unknown

Please upload documentation if available.

If yes, select all that apply:

*Proper chemical storage is as important to safety as proper chemical handling. Often, seemingly logical storage ideas, such as placing chemicals in alphabetical order, may cause incompatible chemicals to be stored together. Facilities must demonstrate that all storage areas are well-marked and properly managed to prevent contamination and safety risks. Temporary storage happens at the point of work where chemicals are applied, such as a screen-printing station. Temporary storage questions only apply to factories that use chemicals in production processes.*

*You will be awarded full points if you meet all storage criteria. Partial points will be awarded if you meet half of all storage criteria.*

*Upload: a) Facility drawing or emergency response plan with local authorities where applicable (skip if previously uploaded); b) Storage/usage permit with restrictions (if applicable); c) Local fire codes MSDS/SDS and technical sheets in local language (skip if previously uploaded); d) Chemical labeling on chemical containers (original labeling, no handwritten labels); e) Floor plan of chemical storage areas, specifying categorization and placements of different types of chemicals; f) Storage in/out log, FIFO records, for each chemical specifying date of arrival at storage, lot number, chemical expiration dates, date of dispatch to production, etc. (skip if previously uploaded); g) Management audits/inspections checklists of chemical storage areas; h) Standard operating procedures for proper chemical storage.*

	Storage	Temporary Storage
The chemical storage area is ventilated, dry and protected from the weather, and fire risk.	X	X
The storage area is protected from unauthorized employees (i.e. locked).	X	
The chemical storage area is clearly marked.	X	X
The chemical storage area has easy entry and exit in case of any emergencies.	X	X
Storage containers are in good condition, appropriate for their contents, closed and clearly labeled with their contents.	X	X
Floor in storage area is solid and non-porous, there are no water drains that the liquid could spill into, and there is no evidence of spilled liquid.	X	X
Secondary containment is available for solid and liquid chemicals in tanks, drums, and temporary containers (where applicable) to ensure no unintended releases occur	X	X
Incompatible substances (such as strong acids and strong bases) are stored separately.	X	X

Flammable substances are kept away from sources of heat or ignition, including the use of grounding and explosion-proof lighting.	X	X
Temporary storage containers are closed and labeled with contents, lot, and hazard class.		X
Temporary waste containers are closed, labeled with contents, and hazard class.		X

**10. Does your facility train employees responsible for the chemical management system on Restricted Substance Lists (RSLs) and Manufacturing Restricted Substance Lists (MRSLs)?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available

**Please describe the RSL and MRSL trainings conducted in the last calendar year**

*MRSL and RSL trainings must be conducted by a knowledgeable employee and come with documentation showing who, when, where, and how they were trained on MRSL and RSL. Please select Partial Yes if training has been provided but is not yet well-documented.*

*Upload: a) Job Descriptions (skip if previously uploaded); b) MRSL/RSL training record(s) with names, date, topic of training, brief description of what was trained*

**11. Does your facility have a documented process to systematically identify, monitor and verify compliance with all product Restricted Substance Lists (RSLs)?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

*Facilities must incorporate an industry standard such as an AFIRM, AAFA, or major customer RSL(s) into their business practices. Please answer Yes if you can verify RSL compliance by providing evidence of your RSL review process and technical data sheets, inventories that meet RSL requirements, and by providing Letters of RSL Conformance, material composition analyses, and/or product test results. If you can prove RSL conformance but do not yet have an internal review process to systematically monitor RSL, please answer Partial Yes.*

*Upload: a) Technical Data/Specification sheets (TDS) for all chemicals; b) Recipes for processes where chemicals are used; c) Purchased materials list with Letter of Compliance to RSL for all chemicals; d) Chemical inventory - verify all chemicals are covered and checked for RSL compliance at least on annual basis, check the dates of previous check.*

**12. Does your facility have a documented process to systematically monitor, update and demonstrate compliance with Manufacturing Restricted Substance Lists (MRSLs)?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

**Does your facility require its chemicals suppliers to do the same?**

- Yes
- No
- Unknown

**Does your facility require its washing and printing subcontractors to do the same?**

- Yes
- No
- Unknown
- Not Applicable

Please describe these processes.

*Facilities must incorporate an MRSL into their business practices. Establishing an effective MRSL program is complicated and may take several years to fully implement in your factory. Please refer to the guidance documents for more information.*

*Upload: a) Chemical Inventory (skip if previously uploaded); b) Chemical review policy and process flow; c) List of non-conforming chemicals; d) Phase out plan for non-conforming chemicals, if any; e) MRSLs applicable to the facility e.g. own MRSL, customers' MRSL, or ZDHC MRSL; f) Positive lists from chemical suppliers (skip if previously uploaded); g) Email communication or communication trail between facility and its chemical suppliers and subcontractors (if any) regarding MRSL compliance; h) Letter of compliance to MRSL with chemical name, date of issuance, and test reports; i) Documented periodical screening process against ZDHC Chemical Gateway (where applicable) and the Level of Conformance of each chemical screened. Dated records of previous screenings and schedule of future screening.*

**13. Can all of your production chemicals be traced from the manufacturing process back to chemical inventory?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

*Chemicals traceability is necessary so that a facility can trace the source of a RSL and/or MRSL failure and take action. Please answer Yes only if your facility can trace all chemicals in production recipes back to the chemical inventory. If only some of the chemicals in production recipes can be traced back to the chemical inventory, please choose Partial Yes.*

*Upload: a) Recipe cards, chemical formulation sheets, and process instructions (where applicable), containing all traceable information (i.e. chemical name and available quantity); b) Chemical Inventory (skip if previously uploaded); c) Chemical mixing process log, lab records (e.g. color lab, washing lab, etc.)*

## **Chemicals Management – Level 2**

**14. Does your facility have an implementation plan to improve your chemicals management program?**

- Yes
- No
- Unknown

Please upload documentation if available.

*We recognize that it may take many factories years to fully complete all Level 1 requirements for a robust chemicals management program. If you have a plan for achieving full completion of Level 1 requirements, please upload it here.*

*Upload: Documented plan for achieving full completion of Level 1 requirements. This plan should include: a) Which questions were not fully achieved why; b) People responsible and a targeted date for achieving requirements for those questions which were not met.*

**15. Does your facility have an implementation plan to reduce the use of hazardous chemicals beyond chemicals specified by regulations and/or Restricted Substance Lists / Manufacturing Restricted Substance Lists?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

*Having hazardous chemicals does not mean that you have violated RSL or MRSL; your facility may have hazardous chemicals that are permitted on-site but that must be handled appropriately and eventually phased out. Please refer to the guidance documents for more information.*

*Upload: a) A hazardous chemical(s) list with an action plan with assigned responsibilities and a timeframe for action; b) Alternative chemical trials in laboratory or pilot facility documents with conclusions to proceed or decline.*

**16. Does your facility source already-approved or preferred chemicals from a positives list beyond chemicals specified by regulations and/or Restricted Substance Lists / Manufacturing Restricted Substance Lists?**

- Yes
- Partial Yes
- No
- Unknown

Please upload documentation if available.

*Please answer Yes only if more than 10% of the chemical formulations in the chemical inventory (% based on the number of chemicals, not the volume) are sourced from a positive list such as ZDHC Chemical Gateway, bluesign, GOTS, and/or Oeko-Tex. If you have chemicals from a positives list that make up less than 10% of your inventory, please choose Partial Yes.*

*For facilities that do not use chemicals in production: Please answer Yes only if more than 50% of the chemical formulations in the chemical inventory (% based on the number of chemicals, not the volume) are sourced from a positive list such as ZDHC Chemical Gateway, bluesign, GOTS, and/or Oeko-Tex. If you have chemicals from a positives list that make up less than 50% of your inventory, please choose Partial Yes.*

*Upload: a) Demonstrate access to a positive list (example: bluesign bluefinder licence); b) Chemical inventory listing the chemical formulations and the corresponding chemical supplier - chemicals sourced from a positive list should be identified in the chemical inventory (skip if previously uploaded); c) Purchasing support documents (skip if previously uploaded); d) Purchasing contract language to support sourcing chemicals from positive lists (skip if previously uploaded); e) Process documentation to identify internal and external responsibilities (skip if previously uploaded)*



### Chemicals Management – Level 3

**17. Does your facility collaborate with brands and/or chemical suppliers to select chemicals for alternatives assessment?**

- Yes
- No
- Unknown

Please upload documentation if available.

**Indicate which chemicals:**

- All chemicals used in manufacturing processes
  - Yes
  - No
- All chemicals used in tooling/equipment (lubricants and grease)
  - Yes
  - No
- All chemicals used to operate and maintain the facility
  - Yes
  - No

*It's critical that value chain partners work together on alternatives in order to prevent a regrettable substitution that results in a product failure or non-compliance. You will be awarded partial points if you are collaborating on alternatives for all categories of chemicals. You will be awarded partial points if you are only prioritizing alternatives for some categories of chemicals.*

*Upload: a) Prioritized list of alternatives for chemicals; b) MRSL/RSL, substances of concern list, REACH SVHC List (skip if previously uploaded); c) Minutes from collaborative meeting between facility, customers, and chemical suppliers regarding alternatives.*

**18. Can your manufacturing process chemicals be traced from product lot number back to chemical lot number?**

- Yes
- Partial Yes
- No
- Unknown

*Please answer Yes only if ALL chemicals used in processes or in mixtures can be traced to the temporary/working storage and main warehouse where consistent records are available and maintained to the lot number. If you can trace some but not all chemicals back to the lot number, please answer Partial Yes.*

*Suggested Upload: a) Product batch card including batch number, dates and production quantity; b) Recipe cards, formulation sheets, process instructions (where applicable), containing all traceable information i.e. chemical name, lot number, and quantity; c) Chemical mixing/blending process log, lab records (e.g. color lab, washing lab, etc.), including relevant information e.g. chemical name and quantity used in mixtures; d) Chemical storage log, including temporary/working storage and main warehouse with consistent records i.e. storage in/out log with chemical lot number, quantity, and dates (stored and dispatched for usage).*

**19. Does your facility contribute a chemical analysis against human and environmental hazard criteria (e.g., persistent, bio-accumulative, and toxic) to this alternatives process?**

- Yes
- Partial Yes
- No
- Unknown

*Please answer Yes if a hazardous chemicals assessment has been conducted in the facility and you are using this information to prioritize action and encourage chemical use towards safer alternatives. The assessment must include an evaluation of the hazard associated with an hazardous substance and an assessment of the exposure. Answer Partial Yes if you have conducted an assessment but have not prioritized further action.*

*Suggested Upload: a) Hazardous Chemicals assessment report; b) Evidence the facility has evaluated the alternatives against hazard criteria.*

**20. Does your facility contribute an analysis of lifecycle impacts to this alternatives process**

- Yes
- Partial Yes
- No
- Unknown

*Your facility should optimize chemicals used, manufacturing processes, and machinery to reduce energy and water consumption associated with a production step. An example would be choosing a different dyestuff in order to reduce water consumption during a dyeing process. Please answer Yes if you have evaluated the environmental impacts (e.g., impacts on water usage, energy usage, waste, wastewater, and disposal) of replacing chemicals in your factory.*

*Suggested Upload: a) bluesign BlueXpert assessment; b) Lifecycle Assessment studies; c) Documented metrics for water, energy, waste, etc.; d) Third party assessments.*

**21. Does your facility have a documented Quality Assurance (QA) Program that includes performance of chemicals?**

- Yes
- Partial Yes
- No
- Unknown

*Please answer Yes only if you have a process in place to randomly select and verify a chemical's compliance to a known standard such as an MRSL or RSL via an organoleptic and chemical analysis on at least an annual basis. This QA program should include: 1) the evaluation of the quality and performance efficacy of each chemical formulation used, 2) ensuring the process recipes of how each chemical formulation are to be used are strictly followed, 3) process controls are strictly followed, and 4) ongoing assessment of production quality with supporting records. Answer Partial Yes if your facility utilizes customer testing reports traceable to work orders and recipes to verify chemical supplier conformance.*

*Suggested Upload: a) Quality department with associated records such as customer test reports, analytical laboratory test reports by chemical by lot; b) Chemical supplier analytical test report; c) SOP for purchasing chemicals from qualified suppliers (skip if previously uploaded); d) Quality reports to senior management; e) In-house records of the analysis performed during last season; f) Test reports records from external labs of the analysis performed during last season and check that they are in accordance with MRSL requirements; g) Analysis results traceable to their corresponding internal orders and finished good batch.*

**22. Do your contractors/subcontractors source already-approved or preferred chemicals from a positives list to replace chemicals not already included in RSL/MRSL?**

- Yes
- Partial Yes
- No
- Unknown

*Please select Yes if your facility has a system in place that requires all contractors and subcontractors to have a preferred chemicals list and verify its use. You may choose Partial Yes if you have an action plan to engage suppliers by requesting the selection of chemicals from a positive list.*

*Suggested Upload: a) Description of the procedures; b) Communications with the suppliers and subcontractors showing confirming the practice of sourcing chemicals from positive lists; c) Higg verification report from suppliers / subcontractors showing that they meet the criteria.*

**23. Does your facility have documented business goals, processes and actions showing commitment (e.g., equipment, process, choice of substitute chemicals) to new sustainable chemistry innovation?**

- Yes
- Partial Yes
- No
- Unknown

**Does your facility communicate its goals, processes and actions to Brands and Suppliers?**

- Yes
- No
- Unknown

*Please answer Yes only if you can demonstrate that business decisions take responsible chemical management and innovation into consideration by incorporating responsible chemicals into its own business agreements and documented business goals. You may choose Partial Yes if you can otherwise demonstrate that business decisions take responsible chemical management and innovation into consideration.*

*Suggested Upload: a) Description or examples of current chemistry R&D projects/investments; b) Examples of how you have incorporated responsible chemistry into your own business agreements.*