THE PUMA FOREVER FASTER
SUSTAINABILITY HANDBOOKS
CHEMICALS MANAGEMENT
FOREWORD

At PUMA, we believe that our position as creative leader in the Sports industry gives us the opportunity and the responsibility to contribute to a better world for generations to come. With the Forever Faster transformation, Sustainability remains a key value of the PUMA brand. Faster is how we are working towards a more just and sustainable future, accelerating positive change in the industry and the world. We believe that by staying true to our values, inspiring the passion and talent of our people, working in sustainable, innovative ways, and doing our best to be Fair, Honest, Positive, and Creative, we will keep on making the products our customers love, and at the same time bring our vision of a better world a little closer every day.

We aim to bring our trading practices in line with the principles of sustainable development. This means that we do not just want to provide high-quality products, but it is our duty to ensure that these products are manufactured in workplaces where human rights are respected and workers’ health and safety as well as the environment are protected.

PUMA takes on the responsibility for everybody involved in the production process, whether a PUMA employee or not. However, this responsibility cannot replace nor substitute the responsibility of our Vendors within their own manufacturing facilities. Our “Code of Conduct” expresses the expectations we have of our Vendors. It is integrated into our manufacturing agreement, which delimits the business relationship we share with our partners. PUMA takes this shared responsibility seriously. We reserve the right to terminate business relations with any partner who does not respect the letter or the spirit of our Code of Conduct or Corporate Sustainability Policies.

Only by partnering up with our Vendors we will be able to have a positive impact and contribute to making a better world for the communities we operate in, the workers who make our great products, our customers and our own employees and, of course, for future generations.

Anne-Laure Descours
Chief Sourcing Officer
FOLLOW
MASTER
THE RULES
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Introduction

RUNNING THE WALK

Taking steps to protect the environment, in accordance with established environmental and social standards, has become an important topic in every industry, as well as in society in general. As a signatory of the United Nations Global Compact, PUMA is committed to setting a brave example for optimizing our social impact and reducing our environmental footprint.

Our comprehensive and ambitious targets to enhance our sustainability are inspired by the United Nations Sustainable Development Goals and encompassed in the PUMA 10FOR20 Sustainability Targets (see Sec. 1.3).

WORKING AS A TEAM

PUMA’s pledge applies to both PUMA entities and Vendors in our supply chain. While we continuously optimize the production process, PUMA also takes measures to mitigate the negative impacts of our supply chain on the global ecosystem.

The PUMA Forever Faster Sustainability Handbooks

PUMA requires all Vendors within our supply chain to fulfill established environmental and social standards. First, all PUMA Vendors must have met all minimum legal requirements. In addition, each must comply with PUMA standards (which may exceed legal requirements) as defined in the four (4) PUMA Forever Faster Sustainability Handbooks: (the “Handbooks”):

- “Social Standards” elaborates upon PUMA’s position on labor rights
- Guidelines for sustainability and environmental protection are contained in “Environmental Standards”
- “Occupational Health & Safety” outlines our standards for and health and safety throughout our supply chain
- Guidelines for Chemicals and Restricted Substances are in “Chemical Management”

These Handbooks are subject to continuous updates. Any feedback or suggestions for improvement is welcome (contact your PUMA Sustainability Team representative or email sustain@puma.com).

GETTING IN THE GAME

PUMA pursues and maintains contractual relationships only with those Factories and Licensees that have agreed to comply with the guidelines and directives set out in the Handbooks.

- All PUMA Factories are contractually bound to pursue business relationships only with Subcontractors that are in compliance with the Handbooks
- Any indication of 1) false documentation or other failures to provide accurate information, or 2) coaching of workers may have serious repercussions on the business relationship with PUMA, e.g. Deactivation

COMMUNICATE, COMMUNICATE, COMMUNICATE

Transparency from all of PUMA’s Vendors is paramount to a successful working relationship. PUMA’s Sustainability Team is determined to work with Vendors, to help address any root causes of noncompliance (through e.g. training and development projects). However, this can only be effectively conducted within the context of full transparency.

Legal Disclaimer:

The content of this handbook is not intended to replace local or national regulations, nor will following the guidelines in the Handbooks guarantee compliance with them. At all times, it remains the sole responsibility of our own entities and Vendors, and their Subcontractors, to ensure compliance with all applicable local and national regulations, including those labor, worker health and safety, and environmental and product safety.
Sec. 1 – PUMA’s Mission Statement & Sustainability Strategy

1.1 PUMA’s Mission Statement

PUMA’s mission is “to be the fastest sports brand in the world.”

Faster is how PUMA will work towards a more just and sustainable future, accelerating positive change within the industry and the world.

PUMA achieves this by considering the welfare and best interests of:

- the consumers of PUMA products,
- the workers who make them, and
- the environment that provides the resources for their manufacture.

PUMA aims to do this while striving to make our business profitable, in order to continuously optimize the benefits for all our stakeholders.

1.2 PUMA’s Sustainability Strategy

In line with our “Forever Faster” transformation, PUMA has refined its global sustainability strategy that balances three (3) dimensions—Economic, Social, and Environment (see Fig. 1)—to achieve sustainable business development. The new strategy includes a drive to mainstream sustainability, create impact and ensure industry alignment.

1.3 PUMA’s 10FOR20 Sustainability Targets

Figure 1: Three dimensions of PUMA’s Sustainability Strategy

Figure 2: PUMA 10FOR20 Sustainability Targets
The PUMA 10FOR20 Sustainability Targets encompass PUMA's goals for reducing our environmental impact and enhancing our sustainability, which will accelerate positive impact within ten (10) areas of focus (see Figure 2). From 2010 to 2015, PUMA primarily focused on environmental targets within our own direct sphere of influence. Going forward, our lifecycle approach means we have shifted focus to look deeper into our supply chain and balanced our efforts by adding three (3) new focus areas and related targets for 2020: Health and Safety, Human Rights, and Governance.

A lifecycle approach starts from product design, e.g. emphasize sourcing significant volumes of raw materials from more sustainable sources. In addition, PUMA encourages its supply chain to adopt Industry Good Practice in manufacturing processes, with the goal of achieving Zero Discharge of Hazardous Chemicals by 2020.

Leading by example, PUMA's owned and operated entities are required to meet reduction targets that are as ambitious as those established for Suppliers.

In summary, we quantify the impacts of PUMA’s business activities. Corporate environmental accounting is used to track progress towards the PUMA 10FOR20 Sustainability Targets; the PUMA Environmental Profit & Loss Account not only puts a price tag on nature’s services but also provides a useful tool for identifying where the largest environmental impacts lie and how to minimize them (see Environmental Standards handbook).

Sec. 2 – Compliance

2.1 Vendor Requirements

PUMA pursues and maintains contractual relationships only with those Factories and Licensees that have agreed to comply with the guidelines and directives set out in the PUMA Forever Faster Sustainability Handbooks. All PUMA Factories are contractually bound to pursue business relationships only with Subcontractors that are also in compliance with the Handbooks.

To support implementation, Factories shall put into effect Vendor Compliance Programs (i.e. internal policies and control mechanisms that find any potential noncompliance at an early stage and work toward remediation wherever needed). Suppliers shall ensure that all activities, contracts, agreements, accounting, etc., are compliant with the Handbooks.

Each Supplier shall appoint a Sustainability Compliance Officer (“SCO”). Ideally, the Officer shall speak English in addition to the relevant national language, as he/she will be the main point of contact between the Factory and the PUMA Sustainability Team. SCOs will promote the internal development of Vendor Compliance Programs and monitor their effectiveness to aid and ensure full compliance with the Handbooks.

The PUMA Sustainability Team is available for support in these matters. PUMA also supports capacity-building projects and conducts regular consultation with Factories to improve the level of compliance within these facilities.

2.2 Core Supplier Requirements

PUMA considers Core Suppliers as key partners. They are selected on a regular, periodic basis through the PUMA Vendor Rating System. This system is a supplier decision matrix that rates all Suppliers against strategic and operational parameters including the demonstration of Vendor management’s commitment to a PUMA partnership as evidenced by investments and improvements in:

- Compliance and performance according to the Handbooks
- Quality and price
- Delivery performance
- Customer service
The PUMA Forever Faster Sustainability Handbooks detail the minimum requirements for all Core Suppliers and Core Supplier candidates, that are expected for compliance (including enhancement of workplace dialogue and conflict resolution) and management systems. Examples include:

- Certified Management systems (ISO 14001, ISO 9001, OSHAS 45001, and SA 8000)
- Participation in industry schemes such as the Sustainable Apparel Coalition HIGG Index and/or the ILO Better Work Program
- Following best practices outlined in the Handbooks
- Publishing of Supplier’s own sustainability reports

Core Suppliers are expected to have medium-term plans (<12 months) and appropriate procedures in place for implementing strategic compliance and improving social performance in a continuous improvement cycle over time.

Core Suppliers must be able to track their performance against these plans using Social KPIs. They must also be able to report on these metrics to PUMA or to any other interested party such as the FLA on an annual basis, as a proactive step to mitigate social audit fatigue.

2.3 Monitoring Programs & Audit Instruments

The PUMA compliance monitoring program applies not only to manufacturers of finished goods (Tier 1 contract Factories), but also to key manufacturers of components and materials (Tier 2 or 3) within PUMA’s supply chain (whether they may be subsidiaries, licensees, or joint ventures).

PUMA therefore regularly audits every Factory that manufactures PUMA products to verify its compliance with PUMA’s policies and requirements, as well as with applicable national and local laws. A Compliance Audit is an important tool to ensure that the standards in PUMA’s Sustainability Handbooks are observed at facilities in the PUMA supply chain.

Within manufacturing agreements, PUMA reserves the right to conduct a comprehensive audit at Factories.

2.4 Conflicting Requirements & Conflicts of Interest

Vendor compliance programs must guarantee compliance with all relevant local, national, and international legislation. In case of conflicting requirements, the regulation with stricter demands shall be followed.

Factories shall always make company decisions objectively, and free of any bias that could result in a conflict of interest. Examples of potential biases include:

- Business dealings (e.g. having relationships or investment with competitors)
- Social ties (e.g. friends or relatives influencing decisions)
- Other personal considerations (e.g. offering or accepting bribes; receiving gifts from Suppliers, Subcontractors etc.)

2.5 Limitations Regarding Antitrust

PUMA will not willingly violate any antitrust legislation by sharing commercial information or other information considered a violation by government authorities. However, we acknowledge that when Vendor compliance programs converge with other business-related activities (e.g. when Suppliers engage in production planning) the compliance-related data may imply some commercial information.

Thus, Suppliers are responsible for maintaining the confidentiality of commercial information; and must inform all relevant customers, including PUMA, of what information the Supplier shares with which parties.
2.6 Anti-Corruption

Around the world, corruption remains a considerable obstacle to sustainable economic and social development. It threatens the reputations of companies as well as those in their supply chains. Furthermore, new, and stringent anti-corruption regulations continue to emerge worldwide. As a signatory of UN Global Compact, PUMA is committed to uphold the ten (10) Global Compact principles in our operations and supply chain. This commitment includes fighting corruption. As part of this commitment, PUMA has added “Ethical Business Practices” to the PUMA Code of Conduct (see Appendix A). PUMA believes:

corruption impedes business growth, escalates costs and poses serious legal and reputational risks. It also raises transaction costs, undermines fair competition, and distorts sustainable development priorities. For Factories, corruption can also negatively impact value. It also poses financial, operational, and reputational risks, both for Factories and their stakeholders.

As part of PUMA’s supply chain, Factories must implement robust anti-corruption measures and practices to protect against such risks for all potentially impacted parties, as follows:

- Conduct regular training to raise awareness on anti-corruption within their organizations
- Conduct an Anti-Bribery and Corruption Risk Assessment
- Develop an anti-corruption policy and program
- Implement a whistleblowing mechanism

2.7 Factory Training & Capacity Building Projects

PUMA supports the development of its Suppliers through capacity-building projects, which aim to improve social and labor compliance and performance. This can be achieved through trainings with NGOs, labor expert organizations, the PUMA team, or related industry initiatives.

These projects are considered investments toward improving working conditions and mitigating risk of negative publicity. They are targeted to create positive impact within or even beyond the Factory.

Suppliers may engage in these investments either jointly with PUMA or on their own. In some cases, such activities may be conducted by the Supplier as a form of corrective action arising from an audit. In these circumstances, PUMA shall be given regular updates on the progress and results in keeping with the Corrective Action Plan in place.

2.8 New Factory Applications

Pre-Screening Visits

Before a PUMA audit is conducted at a Factory seeking PUMA Supplier accreditation, sourcing partners usually conduct a pre-screening to get an overview of the Factory’s compliance status. Based on an initial visit and investigation at the Factory, the sourcing partner may fill out an initial compliance report that can be used to prepare the full audit.

Factory Self-Assessments

In addition, before a Compliance Audit is scheduled, each Factory will be asked to complete a self-assessment questionnaire. This self-assessment questionnaire is similar in scope to the PUMA Compliance Audit. It also allows the Factory in question to compare its existing compliance system with PUMA’s requirements and work on potential areas for improvement before the full audit is conducted.
Sec. 3 – PUMA Compliance Audit

A PUMA Compliance Audit verifies that a Factory is following PUMA standards. Only PUMA and other qualified third-parties designated by PUMA (“Auditor(s)”) may conduct verifiable monitoring activities. PUMA conducts audits with all potential Suppliers prior to the start of business relationship; Factories already authorized for production will be assessed at regular intervals (typically once per year).

PUMA reserves the right to conduct Compliance Audits without advance notice.

PUMA may contact Core Suppliers more frequently. However, not all assessments will be in the form of audits. For example, Core Suppliers may be visited to validate social and environmental KPIs and their entries on the SAC HIGG Index.

AUDIT SCORE SUMMARY

- Only Factories with a passing grade of A, B+ or B- will be authorized for PUMA production.
- Factories that receive a C rating will be given a specific timeframe (typically 4 months) to resolve noncompliance Critical Issues. Based on successful completion, the Factory will be upgraded to a B rating and production authorization will be given.
- Factories given a D rating are considered unprepared for compliance with the PUMA Standards. No production authorization shall be given to these Factories. D-rated Factories may apply for a new PUMA Compliance Audit only if they provide Credible Evidence that a higher compliance status has been permanently achieved (e.g. Factory has passed a Compliance Audit report by other brand and presents an externally verified completion of corrective action plan or similar).

3.1 Preliminary Briefing

The audit starts with a briefing to the Factory Management and representatives on the PUMA standards, as well as the audit process and its scope.

3.2 Facility Tour

After the briefing, inspection of all production areas and connected facilities commences. This may include materials storage areas, drinking stations, kitchen, dining room, medical clinic, dormitories, shower and toilet facilities, recreational areas, garbage staging areas and wastewater treatment facility, where applicable. In some cases, areas subject to inspection may be located outside of the Factory premises.

3.3 Document Review

Factory Management must make documents available for review, including but not limited to the following:

- Registration papers with appropriate government agencies
- Business and safety licenses and permits
- Company policies and procedures
- Employment records including contracts and age documentation
- Attendance records, payroll, and other related records
- Those related to health, safety, and environmental practices in the Factory

These documents serve as the primary evidence of the Factory’s compliance performance.
Presentation of fake or manufactured documents during the audit is a serious violation of PUMA’s Code of Conduct and is a Critical Issue.

If Factories present forged/falsified documents or practice other forms of non-transparency, the following consequences may result:

- The audit will be discontinued until Credible Evidence of transparency is obtained,
- The Factory will receive maximum audit rating penalties, and regardless of the final audit grade obtained,
- The PUMA Sustainability Team may recommend against a business relationship with the subject Factory or advise that PUMA discontinue a business relationship that has already been started.

3.4 Employee Interviews

We believe that interviews with worker or union representation are crucial for witnessing and understanding workers’ perspectives on workplace standards and Factory atmosphere.

Interview of randomly selected employees is another important audit procedure. PUMA reserves the right to interview employees of Factories at its discretion. Auditors may conduct these in groups or individually, depending on the nature of the topic or information sought. Interviews may take place onsite, offsite, or remotely, depending on the circumstances during the audit. Onsite interviews may occur during actual work proceedings, or separately, as circumstances warrant.

PUMA prohibits the presence of members of the Factory Management or any office staff during interviews with workers or supervisors to avoid biased answers and coaching. In addition, Auditors will provide workers with PUMA contact details during their interviews.

Any form of management retaliation against interviewed workers is considered a Critical Issue and serious failure of compliance.

3.5 Summary Meeting

PUMA’s Compliance Audits conclude with a summary meeting. Participants include Factory top management and other relevant parties, such as the Factory’s own:

- Sustainability Team
- HR
- OHS Expert
- Environmental Expert
- Worker or union representation

The meeting provides the audit team with the opportunity to:

- Communicate audit findings to relevant parties
- Highlight good practices
- Note areas that require improvement

This meeting also gives the Factory Management an opportunity to:

- React to audit findings
- Contest any they disagree with
- Present relevant proof to support their claims

It is also during the summary meeting that the audit team shall provide the Factory with suggestions for appropriate corrective actions to resolve any noncompliance. At this stage, Factories have ideally signed a corrective action plan (see Sec. 3.6).
3.6 Corrective Action Plan

The Corrective Action Plan documents the issues discovered during the audit, and outline plans for improvement. Both the audit team and the Factory representative sign the plan, before two (2) copies are made:

- Factory Management receives a copy, which it can used to formulate a plan for corrective actions and an implementation timetable.
- The other copy remains with the Auditor team and is kept on file for subsequent verification of corrective actions and remediation of identified issues.

Depending on the nature of the findings, Auditors may conduct verification of corrective actions either remotely (via desktop review) or in-person (via a follow-up visit); therewith, some immediate corrections may be taken into account prior to the finalization of the audit report, in accordance with remediation standards for the issue(s).

Factories have a maximum of ten (10) days after the audit to send the Corrective Action Plan to the Auditor (including already implemented action points) before the audit report and the Factory rating is finalized.

3.7 Audit Report

The Auditor prepares a report after completion of the audit. In line with PUMA’s principle of transparency, the Factory will receive a printed or electronic copy of the audit report including space to provide feedback on the professionalism of the audit team. The Factory is free to share this audit report copy with other brand customers to reduce audit fatigue.

Please note: Noncompliance of Zero Tolerance issues (see Sec. 4.1) automatically results in a failure rating, regardless of the Factory’s total points. Such Zero Tolerance issues include:

- Proven Case of Child Labor
- Noncompliance with Basic Government Licensing Regulation
- Payment Below Legal Minimum Wage

3.8 Additional Checks for Compliance

As a supplement to the formal audit, PUMA associates who visit any facility that manufactures PUMA products, regardless of their normal assignment, have permission to check for compliance with the Code of Conduct and the Handbooks as part of their regular duties.

See next page.
3.9 The PUMA Audit Rating System

PUMA’s Audit Rating System is based on the ratings: A, B+, B-, C and D. The minimum passing grade is 85% (i.e. only A, B+ and B- ratings are passable) and C and D are failure ratings. The ratings and corresponding grades are:

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<th>RATING</th>
<th>DEFINITION</th>
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<tr>
<td>A</td>
<td>95% to 100%</td>
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<tr>
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<td>Routine: Every 12 months</td>
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<td>• The PUMA Forever Faster Sustainability Handbooks requirements have been met, and there are indications of strategic initiatives to maintain compliance with the PUMA Code of Conduct.</td>
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<tr>
<td>B+</td>
<td>90% to 94.99%</td>
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<td>Routine: Every 12 months</td>
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<td>• Noncompliance issues are of minor importance and can be rectified immediately.</td>
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<td>B-</td>
<td>85% to 89.99%</td>
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<td>Routine: Another audit is conducted within the next 12 months to check improvements. If there is still no progress, a warning letter is issued.</td>
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<td>• Noncompliance issues are of minor importance, but there are a larger number of such issues found compared to a B+ rating.</td>
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<tr>
<td>C</td>
<td>75% to 84.99%</td>
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<td>Routine: Every 4 months</td>
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<td>• Serious or numerous noncompliance issues found during the audit that must be rectified immediately.</td>
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<td>• For existing Factories, a follow up audit is conducted within four (4) months to check the remediation status of identified issues.</td>
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<td>• For Better Work (“BW”) Factories, PUMA will collaborate with both BW and Factories suggesting a specific timeframe to improve the issues based on the BW Improvement Plans.</td>
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<td>• In the event a Zero Tolerance (“ZT”) issue is identified, all Factories including BW Factories will follow PUMA’s standard CAP timeframe (Depending on the issues found, between 8 weeks to 6 months) to improve the potential ZT issue (see Sec. 4.1).</td>
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<td>• New Factories will not be provided with manufacturing authorization until the issues identified are rectified and an A or B rating is achieved.</td>
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<td>D</td>
<td>74.99% and below</td>
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<td>• Many serious violations or at least one (1) Zero Tolerance issue found (see Sec. 4.1).</td>
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<td>• For an initial audit of potentially a new Factory, a business relationship will not be started. For an audit of an existing Factory, a phase-out plan will be started, leading to the eventual termination of the business relationship, i.e. Deactivation.</td>
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<td>• For Better Work (“BW”) Factories, PUMA will collaborate with both BW and Factories suggesting a specific timeframe to improve the issues based on the BW Improvement Plans.</td>
</tr>
<tr>
<td></td>
<td>• In the event a Zero Tolerance issue is identified, all Factories including BW Factories will follow PUMA’s standard CAP timeframe (Depending on the issues found, between 8 weeks to 6 months) to improve the potential ZT issue (see Sec. 4.1).</td>
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Figure 3: PUMA rating system
3.10 Environmental Audits

PUMA aims to move from individual brand environmental audits to the use of industry-wide tools, such as ZDHC and the Higg Index FEM 3.0. Once the FEM 3.0 is complete and deployed to PUMA’s core supply chain, PUMA will require external verification on the self-assessment FEM modules. This external verification may be completed by PUMA’s internal team, approved verifiers from other credited brands, or third-party organizations. Until the verification capability complete, PUMA will cover the Core Suppliers with external environmental audits conducted and shared by the other credited brands or organization such as LWG, Bluesign, Oekotex, etc., as well as with the internal verification conducted by PUMA’s Sustainability Team.

3.11 RSL Compliance Process

The flow chart below illustrates a simplified version of the PUMA RSL compliance process:

![Figure 4: Simplified RSL compliance process flow chart](image)

RSL compliance of materials is controlled by PUMA but must be ensured by Suppliers and manufacturers before products may be released for production. PUMA may also conduct additional random checks of components and finished products to verify the efficacy of RSL compliance programs at Manufacturers and Suppliers.

Manufacturers must complete a PUMA Compliance Audit before receiving authorization to produce for PUMA or PUMA subsidiaries. Letters of Authorization (“LoA”) for production are awarded only to those manufacturers that successfully complete a Compliance Audit. To receive this letter, Suppliers must pass the PUMA Compliance Audit and prepare the RSL Summary Sheet in the RSL Database (see Sec. 3.11.4 for more details regarding the RSL Summary Sheet and Letter of Authorization).

The RSL compliance process includes the tasks and responsibilities for manufacturers and material Suppliers that are outlined in the following section.

3.11.1 Requirements for RSL Compliance Programs at Manufacturers

Manufacturers must have a reasonable RSL Compliance Program in place in order to fulfill PUMA RSL standards and be made a PUMA-approved manufacturer. RSL compliance of Suppliers is logged in the RSL database record. Suppliers may create their own Compliance Programs, but all Suppliers must include, at minimum, the following components:

- An internal system in place to ensure all materials are RSL-compliant (as explained above) before they are used for production;
- A process in place that uses the PUMA RSL Database for uploading test reports and creating the RSL Summary Sheet(s); and
- RSL random checks of finished products or materials to ensure the validity of material Suppliers’ RSL conformance declarations.
Responsibilities of Manufacturers (Tier 1)

Produce RSL-compliant finished goods
- Ensure all materials are RSL-compliant before using them in the production of PUMA products
- Be responsible and liable for loss and damage suffered by PUMA, should any material, component, or finished product be noncompliant
- Have a reasonable RSL compliance program in place

Responsibilities of Material Suppliers (Tier 2 and 3)
- Ensure that all materials used in the manufacture of PUMA products fully follow RSL requirements
- Provide a valid test report (or a valid Bluesign® or OEKO-TEX® certification) to the manufacturer and upload it to the PUMA RSL Database

3.11.2 Remediation Procedure for RSL Failures

If an RSL failure is detected for any substance from any material or component of a product, appropriate remedial action shall be conducted (see Figure 5). Proper investigation through a root-cause analysis must be carried out to identify the source of RSL failure. Until each material passes the test proving compliance to PUMA’s RSL requirements, it shall not be used in any manufacturing of PUMA products.

If root-cause analysis and remedial actions demonstrate that a material will not pass a re-test, the manufacturer shall seek a substitute and/or source from a different materials Supplier who is able to provide a “pass” and valid test report for the material.

Figure 5: RSL testing and remediation procedure in case of RSL failure
3.11.3 RSL Compliance Failures & Penalties

In case of RSL compliance failure, PUMA reserves the right to charge a penalty to the manufacturer as stipulated in the Manufacturing Agreement with its Declaration of Principles.

In case of a product recall due to noncompliance to RSL requirements, the Factory shall bear all costs incurred during the recall process. Please refer to the Manufacturing Agreement for further details.

3.11.4 RSL Summary Sheet & Letter of Authorization

To become a PUMA-authorized manufacturer and receive the Letter of Authorization (LoA) required for production, Suppliers must complete an annual verification procedure. This procedure includes the following requirements:

1. Successful completion of a PUMA Compliance Audit by PUMA’s Sustainability Team
2. Completion of an effective RSL compliance program (see Sec. 3.11.1)
3. Submission to PUMA of a completed RSL Summary Sheet

The RSL Summary Sheet must be created in the PUMA RSL Database by the manufacturer (Tier 1 Supplier). It shall include information on all materials used by the manufacturer as well as the RSL test status for each. RSL Summary Sheets can be created for each style, style group (for styles with same materials and similar design), or for all materials as a single RSL Summary “Master Sheet.”

Please contact PUMA’s Sustainability Team for the Standard Operating Procedure on LoA issuance.

3.11.5 Certificates of Compliance (“CoCs”)

Two (2) versions of Certificates of Compliance exist; one (1) each for materials and finished products. Templates for both may be found on PUMA’s Sustainability website.

Policies for completing both types of CoCs are outlined below:

CoC for Materials: Completion of this certification is optional and may be filled out by materials Suppliers to inform Manufacturers or PUMA employees that materials have been tested and are following RSL requirements. Manufacturers may ask for this certificate to collect information for all materials as part of their RSL compliance management program.

CoC for Finished Products: Manufacturers of finished products may use this certificate in cases where key customers of PUMA or certain country specifications require a documentation of RSL compliance of PUMA products. This certificate confirms that all PUMA styles produced by the Factory are RSL-compliant. The completed RSL Summary Sheet in the RSL Database is used as the basis for filling out this certification.

See next page.
3.12 Year-End Grade Guidance

In the past, the Year-End Grade that our Suppliers earned was synonymous with their last audit rating. However, any audit rating is always only a snapshot in time. Therefore, going forward, we have decided to consider the implementation status of Corrective Action Plans (Verification Grade), as well as the occurrence of any serious compliance violations after the last audit, irrespective on how those were brought to PUMA’s attention (Red Flag Incidences).

As audit scores only reflect the status of compliance at a point in time, the purpose of the year-end grade is to capture annual sustainability performance of Factories from a variety of data sources received throughout the operating year. The year-end grade is used to evaluate our Suppliers and will be published in the PUMA Annual Financial and Sustainability Reports on an aggregate level.

See next page.
Sec. 4 – Issues

PUMA’s system for rating Code of Conduct compliance organizes instances of noncompliance into four categories: Zero Tolerance (“ZT”) Issues, Critical (“CI”) Issues, Major (“MI”) Issues, and Regular (“RG”) Issues. When an instance of noncompliance is found, the result is a reduction of the Factory’s audit score according to the following schedule:

- A ZTI results in a 30-point reduction and automatic failure of the audit;
- A CI issue results in a 10-point reduction and a requirement that the Factory take immediate actions to remediate in order to maintain an opportunity to pass the audit;
- A MI issue results in a five-point reduction, where the Factory may still achieve a passing grade but must nonetheless take action to remediate; and
- An RG issue results in a one-point deduction. RG issues are considered non-urgent, and Factories are given reasonable timeframes in which to address them.

4.1 Zero Tolerance (“ZT”) Issues

Zero Tolerance Issues are unacceptable violation of PUMA’s Code of Conduct. If a ZT issue is discovered, the Factory will automatically fail its audit.

There is no possibility for the Supplier to produce any PUMA goods if ZT issues are present.

ZT issues are defined as follows:

<table>
<thead>
<tr>
<th>NO.</th>
<th>ZT ISSUE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Noncompliance with Basic Government Licensing Regulation</td>
<td>Missing or invalid business permit, or any missing operation/license/certification that is legally required from local authorities to operate the business.</td>
</tr>
<tr>
<td>2</td>
<td>Payment Below Legal Minimum Wage (see Social Handbook)</td>
<td>Failure of the Supplier to meet any of the following wage requirements:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the legal minimum wage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the appropriate prevailing, industry, or sectorial minimum wage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• the collectively bargained wage, either national or regional for the workers (including sub-contracted workers or whoever works in the Factory in any operation or service for the Factory)</td>
</tr>
<tr>
<td>3</td>
<td>Proven Case of Forced Labor (see Social Handbook)</td>
<td>Any work or service performed by a worker which worker does not voluntarily agree to, and under the threat of any kind of penalty. All slavery practices, including human trafficking and bonded labor, prison labor, indentured labor, or other form of forced labor.</td>
</tr>
<tr>
<td>4</td>
<td>Proven Case of Child Labor (see Sec. Social Handbook)</td>
<td>A hiring age policy and/or practice that is not in compliance with the legal requirement and/or the PUMA Code of Conduct (whichever is more stringent). The minimum age for employment under international standards and PUMA Code of Conduct is no less than 15 years, or the age at which compulsory schooling is completed, whichever is higher.</td>
</tr>
</tbody>
</table>
### 4.2 Critical ("CI") Issues

Critical Issues constitute a **serious** violation of PUMA's Code of Conduct. They will be treated with higher priority than other findings. Discovery of one (1) or more CIs may lead to a **failure** of the PUMA Compliance Audit or to a **significant downgrade** of the final audit grade. CI issues are defined as follows:

<table>
<thead>
<tr>
<th>NO.</th>
<th>CI ISSUE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unauthorized Sub-Contracting</td>
<td>Any operation that Suppliers carry out in outsourced Factories, that has not been approved or audited by PUMA.</td>
</tr>
<tr>
<td>2</td>
<td>Unregistered Workers (see Social Handbook)</td>
<td>Employment contracts must be provided according to local legislation requirements. A working contract or equivalent local document shall be signed with all employees before the start of employment. One (1) copy of this contract shall be filed by the Factory and another shall be given to the worker.</td>
</tr>
<tr>
<td>3</td>
<td>Social Insurance, Provision Deficiency (see Social Handbook)</td>
<td>Any instance where the Factory does not make full contributions to the provident fund / social insurance / medical insurance / unemployment insurance / work injury insurance / maternity insurance / pension scheme(s) or other funds as required by law, taking into account both the employer and employee contributions where applicable. Any instance where the Factory does not keep proper records of payments of contributions to the authorities in relation to social security/medical/pension schemes and funds, with details on the contribution for each employee.</td>
</tr>
<tr>
<td>4</td>
<td>Falsified Records (Statements, Practices &amp; Documentation)</td>
<td>In all instances, a false representation of a matter of fact, whether by word, conduct or documentation. Examples include hiding records, illegal practices, (such as coaching workers for falsified answers in interviews, paying bribes or wherein documentation is found to be inconsistent with other records found at the facility, including verification from workers and other entities, such as civil society and government, as may be pertinent).</td>
</tr>
<tr>
<td>5</td>
<td>Proven Case of Discrimination (see Social Handbook)</td>
<td>Any instance where workers are subject to discrimination in employment, including: hiring, compensation, advancement, discipline, termination or retirement, on the basis of gender, race, color, religion, age, health, disability, sexual orientation, nationality, political opinion, social or ethnic origin, or position.</td>
</tr>
<tr>
<td>6</td>
<td>Proven Case of Harassment or Abuse (see Social Handbook)</td>
<td>Any systematic verbal, sexual, physical, or psychological abuse or harassment that may also be part of the Factory's management style e.g. physical punishment used to discipline workers (such as workers are regularly locked inside the Factory and unable to leave), widespread sexual harassment.</td>
</tr>
</tbody>
</table>
7 **Proven Case of Reprisal or Retaliation Against Workers**

Penalizing workers without just cause, negative consequences or other inappropriate behavior by the Factory towards workers, such as threatening of the same e.g. employee is threatened to be penalized after he/she elects to not perform overtime or hazardous work.

8 **Proven Case of No Freedom of Association** (see Social Handbook)

Factories that do not recognize or respect workers’ rights to Freedom of Association and/or Collective Bargaining.

9 **Sub-license Mission (Environment Permit, Fire Safety Permit, etc.)**

Missing or invalid fire safety, building safety or environmental license/permit/certification, as legally required by local authorities.

10 **No testing for Restricted Substances**

Lack of a procedure to regularly test incoming materials for restricted substances (as per the Restricted Substances List; “RSL”).

11 **Missing/Inadequate Professional Risk Assessment** (See Occupational Health & Safety Handbook)

This risk assessment should include: general health and safety issues in production processes and devices; fire and electrical safety; mechanical safety; chemical hazards; emissions hazards (including for radiation); confined space hazards; tripping hazards; health risks to vulnerable employees; requirements for frequency of exposure; structure safety; monitoring and prevention; safety control procedures where extreme temperatures may affect workers; fall protection hazards, and other relevant factors.

### 4.3 Major (“MI”) Issues

Major Issues are crucial violations of PUMA’s Code of Conduct. Suppliers are expected to remediate issues with immediate action or within a reasonable timeframe. We define MI issues as follows:

<table>
<thead>
<tr>
<th>NO.</th>
<th>MI ISSUE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Overall Special Performance and Management Commitment Violation</strong></td>
<td>The Factory does not collaborate with PUMA or does not implement/complete/clear all ZT, CI, and MI issues from earlier PUMA audits. Factory does not adopt policies/procedures and conditions of employment that respect workers’ rights, during the tenure of their employment. Any violation of management’s overall commitment, such as rules, policies, or practices.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Insufficient Overtime Payment</strong> (see Social Handbook)</td>
<td>The Factory does not pay the correct, legally defined rates for overtime, rest days, and holidays.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Occurrence of Delayed Payment</strong></td>
<td>The Factory has delayed the release payments of wages within the last twelve months in more than two (2) instances.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Proven Case of Homeworking</strong></td>
<td>Evidence of homeworkers or failure to declare subcontracted workers hired by the Factory. The use of homework is not authorized by PUMA. Homework shall not be confused with micro-enterprises with a legitimate commercial identity. Such micro-enterprises must be evaluated for presence of Critical Issues like child labor (see CI issues). In proven cases of homework, Suppliers will be required to move production processes to legitimate commercial enterprises and compensate the contracted parties either by arranging legitimate employment within their own or other commercial enterprises.</td>
</tr>
<tr>
<td></td>
<td><strong>Issue</strong></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td><strong>Regular Working Hours Violation</strong> (see Social Handbook)</td>
<td>The Factory does not comply with regular daily/weekly/monthly working hours or has incomplete or contradictory records on working hours.</td>
</tr>
<tr>
<td>6</td>
<td><strong>Excessive Overtime Violation</strong> (see Social Handbook)</td>
<td>The Factory does not follow the relevant local law and PUMA’s policy regarding overtime work.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Vulnerable Workers Violation</strong> (see Social Handbook)</td>
<td>The Factory does not meet the basic legal requirements regarding working hours, for pregnant/nursing employees and other special vulnerable workers (e.g. young and senior workers), such as shortened work hours or special breaks.</td>
</tr>
<tr>
<td>8</td>
<td><strong>Complaints/Grievance Procedure – Worker Communication Violation</strong> (see Social Handbook)</td>
<td>The Factory lacks an effective complaints/grievance process to confidentially gather and address worker allegations, in a manner that protects the complainant against any form of reprisal/retaliation.</td>
</tr>
<tr>
<td>9</td>
<td><strong>Failure to Complete Emergency Reporting to PUMA</strong></td>
<td>Factories shall record accidents that result in work stoppage properly and follow PUMA’s “Emergency Reporting Protocol” when reporting accidents, and ensure that reports are submitted in a timely manner.</td>
</tr>
<tr>
<td>10</td>
<td><strong>Welfare Facilities &amp; Amenities Violation</strong> (see Social Handbook)</td>
<td>The Factory is not in compliance with local legal requirements for the provision of facilities such as dormitories, canteens/kitchens, childcare/crèche, lactation area and/or equipment, etc.</td>
</tr>
<tr>
<td>11</td>
<td><strong>Missing MRSL Procedure / Using Banned Chemicals</strong></td>
<td>There is no procedure in place for ensuring compliance with the ZDHC Manufacturing Restricted Substances List (MRSL) for eliminating banned chemicals</td>
</tr>
</tbody>
</table>

### 4.4 Regular (“RG”) Issues

Regular Issues are considered minor violations of PUMA’s Code of Conduct. They are treated with lower priority than other issues discovered during the audit. The timeframe for resolving each RI depends on nature of the issues. The PUMA auditor or External Monitor shall provide guidance on the correction and implementation of each issue with Factory Management during the audit summary meeting (see Sec. 3.5).
Sec. 5 – PUMA’s Environmental Policy

We recognize that protecting our environment is an ongoing process and challenge. In our aim to improve the sustainability of PUMA’s business activities, by initiating more sustainability-related activities, we strive to comply with local and international environmental legislations, be transparent with our stakeholders about the Environmental Impact of our work, and continuously improve our performance. Our Environmental Policy applies to all of our branches worldwide, and we request that our suppliers and service providers adhere to the same principles. Our Environmental Policy is comprised of five (5) key aims:

1. **Ensure compliance to all legal regulations and set standards that exceed minimum legal requirements.** Enforcing the highest environmental standards, both at PUMA and through our business partner levels, benefits PUMA economically by eliminating and/or mitigating risk associated with illegal noncompliance; pre-empting new regulations and maintaining a good practice position to generate positive momentum on environmental issues within the company and our stakeholders.

2. **Fully integrate PUMA’s Environmental Policy into the Corporate Strategy and align with key stakeholders.** Sustainability goals cannot be achieved by an individual department or brand alone; success in this area requires coordination among all individuals and stakeholders involved to serve a common goal.

3. **Find ‘win-win’ solutions that serve both financial and environmental interests.** PUMA believes that meeting our reduction targets for the consumption and use of energy and water, as well as for the emission of CO₂ and waste, will generate financial savings in the long term. Aligning our environmental strategy with goals for long-term growth will enhance staff and consumer loyalty to our brand and enhance our competitive advantage, all while reducing PUMA’s impact on the environment.

4. **Communicate PUMA’s Environmental Policy to different levels of our organization and main stakeholders.** Once we establish these standards, we aim to effectively communicate them to all PUMA employees and workers to raise awareness and enlist support in implementing them within all divisions of PUMA, in the practices of our business partners and consumer product use.

5. **Strive for continuous improvement.** PUMA strives to undertake more sustainability activities and produce our products in a more sustainable way by continuously monitoring our performance against established targets.

5.1 Environmental Impact Targets

We have established specific targets (and enforceable actions) for minimizing our Environmental Impact. These include the following:

**GENERAL**

- Support, actively, industry initiatives that promote a more sustainable apparel and footwear industry
- Meet or exceed all requirements in relevant environmental legislation
- Track, calculate and reduce the Environmental Impact generated by our activities

**CO₂ EMISSIONS & AIR POLLUTION**

- Support actions to stay within a maximum of a two-degree (Celsius) increase scenario to mitigate the effects of climate change through:
  - Optimizing the efficient use of energy
  - Switching to renewable energy sources where economically feasible
  - Offsetting any unavoidable emissions from owned entities
  - Supporting our suppliers in reducing their greenhouse gas emissions
WATER USE, WATER POLLUTION, & WASTEWATER

- Conserve, reuse, and recycle water using industry good practices wastewater treatment systems
- Promote water recycling and rainwater harvesting
- Minimize waste and promote reuse and recycling

CHEMICALS

- Achieve zero discharge of hazardous chemicals by 2020

MORE SUSTAINABLE MATERIALS

- Purchase leather from certified tanneries and promote traceability of leather
- Purchase paper and cardboard from certified and sustainably managed sources
- Promote scaling of the use of more sustainable cotton and polyester
- Use sources of environmentally friendly products and services in our purchasing decisions

5.2 Sustainable Consumption of Natural Resources

PUMA encourages its employees and Suppliers to optimize their use of natural resources (including energy, water, and raw materials) to improve the sustainability of their supply chains. Over the last several years, PUMA has initiated capacity-building projects to help stakeholders achieve this aim. These projects have included hosting trainings, conducting onsite assessments, introducing cleaner production technologies, and consulting with experts on other improvement methods. Examples of past projects include CONSERV (2011-2013), SAVE (2013-2015), Vietnam Improvement Project or “VIP” (2017), PaCT, and work with various operations with high environmental impact in the PUMA supply chain including those of Tier 1 suppliers, key fabric mills, and leather tanneries.

Learn more about our capacity-building projects online at our website.

5.3 Reduction & Offsetting of Carbon Emission

PUMA is an active participant of the Carbon Disclosure Project and recognizes the importance of limiting global warming to two degrees Celsius. PUMA commits to contributing its fair share to achieve this two-degree goal.

Because energy consumption is directly linked to the carbon emissions, which accelerates global warming, PUMA encourages Suppliers to use renewable energy sources where possible to curb their own carbon emissions and footprints.

5.4 Sustainability Charter for Own Entities & Suppliers

PUMA’s Sustainability Team has also created Sustainability Charters that provide our offices, stores, warehouses, and factories with a tool for identifying easy improvements that can be made toward environmental protection. The Factory Management at each of these locations are encouraged to complete the Charter and display a signed copy at the building’s entrance or reception, indicating to all employees which actions have already been taken and which are in progress.
Sec. 6 – Sustainability Data Collection & Reporting

PUMA uses Enablon, the environmental software tool, for the regular collection of environmental performance data from both owned entities and PUMA’s Tier 1 and 2 Suppliers.

Each PUMA entity is accountable for its environmental performance. All PUMA offices, stores and warehouses are therefore required to regularly complete web-based questionnaires on the usage of energy, water, and paper, as well as the creation of waste. This data also forms the basis for PUMA’s internal management system, as well as the information presented in each Annual Report.

Given that the majority of PUMA’s overall environmental footprint is created in the supply chain, PUMA includes all major Tier 1 and exemplary material suppliers into the regular data collection process. PUMA then uses this data to establish environmental key performance indicators (“E-KPIs”) that align with production volume for each supplier, helping us track supplier improvements on energy and resource consumption, as well as the creation of emissions and waste.

For more information on PUMA’s data collection procedure, please contact the PUMA Sustainability Team.

6.1 Global Reporting Initiative (“GRI”) Sustainability Reporting

PUMA has been publicly reporting its sustainability performance in accordance with the guidelines of the Global Reporting Initiative since 2004. Since 2010, PUMA’s Sustainability and Financial Reporting have been integrated into the consolidated PUMA Annual and Sustainability report.

PUMA continues to encourage its Core Suppliers to publish sustainability reports that adhere to GRI guidelines to further transparent sustainability reporting across the supply chain.

6.2 Reporting of Environmental Key Performance Indicators ("E-KPIs")

PUMA has established Environmental Key Performance Indicators to measure our progress and manage PUMA’s environmental footprint. These E-KPIs track use of energy and water, as well as the generation of CO₂ and waste per unit of products, square meter of buildings used, financial turnover or per staff full time equivalent ("FTE").

PUMA and PUMA suppliers use the online platform Enablon for regular data collection from Core Suppliers, and to enable monitoring, tracking, and publishing of the E-KPI performance in PUMA’s Annual Report. See the figure below for PUMA’s 2017 E-KPI performance compared to previous years:

![Figure 8: PUMA’s E-KPI Performance, 2017](image-url)

6.3 Institute of Public and Environmental Affairs (“IPE”)

The Institute of Public and Environmental Affairs (“IPE”) is a registered non-profit organization based in Beijing, and suppliers based in China must adhere to their reporting policies. Since its establishment in May 2006, the IPE has developed a database to monitor corporate environmental performance and pollution. The IPE’s aim is to expand environmental information disclosure and allow communities that harbor manufacturing facilities to fully understand the hazards and risks in the surrounding environment, promoting enhanced public participation in environmental governance.

Every year, IPE publishes the CITI report with the Natural Resources Defense Council (“NRDC”) to evaluate more than 100 brands’ local annual environmental performance and update factories’ environmental violation records (via public resource) in Mainland China. IPE has also developed the Pollutant Release and Transfer Register (“PRTR”) and Detox data platforms in partnership with Greenpeace, to publicly disclose Detox data and other environmental performance data from Factories. PUMA therefore requires those suppliers based in Mainland China to adhere to the following reporting policies:

- Track their own environmental performance on IPE’s platform (via website or app). In the case of any violation, the Factory shall communicate with IPE to report follow-up actions
- Publish their environmental KPIs and other relevant data on IPE’s RPTR platform as requested by PUMA

Global suppliers are required to report detox information on IPE’s detox platform as requested by PUMA.

For more information about IPE and its CITI index please visit this [website](#).

6.4 Corporate Environment Profit & Loss Accounting

**RECOGNIZING THE VALUE OF ECOSERVICES**

All business operations and supply chains depend on natural resources for ecosystem services such as fresh water, clean air, healthy biodiversity, and productive land.

*At PUMA, we believe that healthy ecosystems are critical to the future of our business. We also recognize that we must be ethical, accountable, and responsible to our environment as we conduct our business activities.*

We recognize that we must account for the *cost of natural resources* in our day-to-day business decisions. The establishment of PUMA’s Environmental Profit and Loss Account (“EP&L”) is our first attempt at measuring the immense value these services provide to a business, as well as the *true costs or impacts on nature by a business*.

Toward the end of 2009, we embarked on a journey to develop an enterprise and supply chain-wide view of our Environmental Impact in monetary terms. The PUMA EP&L measures and values both reductions in ecosystem services and increases in Environmental Impact due to PUMA’s operational and supply chain activities.

- **Definition**: An Environmental Profit & Loss Account provides companies with a means of placing monetary value on the Environmental Impact along the entire supply chain of their business.
- **Profit**: Activities that benefit the environment.
- **Loss**: Activities that have an adverse Environmental Impact.
- **Environmental Impact**: A change in the makeup, functioning, or appearance of the environment. Examples include:
  - Greenhouse gases (“GHGs”), which contribute to climate change, are associated with a range of Environmental Impacts such as reducing crop yields, changes in water availability and increases in extreme weather.
  - Waste disposal, including its leachate, can affect water courses, permeate local areas with unpleasant dust, noise, and odor (Not to mention create GHG emissions).
TRANSPARENCY & COMMUNICATION

Many audiences, both in our business and among our suppliers, are unfamiliar with the language of sustainability and may struggle to put figures such as ‘metric tons of GHG emissions’ and ‘cubic meters of water’ into context. As such, we chose to convert our Environmental Impact into monetary terms to make them digestible and meaningful to a wider audience.

Our EP&L will help us explore answers to the following:

- How can we help our employees, shareholders and suppliers understand the magnitude and importance of our impact on the environment?
- How can everyone in the business grasp the significance of the amount of CO₂ released, the impacts of land conversion required to provide raw materials, or the volume of water consumed? How can this be factored into day-to-day decision making?
- How do our different Environmental Impacts compare to one another? Which are most significant?
- Where in our supply chain shall we focus our resources to reduce our overall impact?
- How can we help others understand the challenge of reducing our Environmental Impact, and the work we are doing to manage them?

By reporting the results of the EP&L, PUMA makes transparent the true scale of our Environmental Impact and enables clearer communication about their implications on people’s lives, jobs, and environment. We believe this provides a basis for more meaningful, evidence-based engagement with our stakeholders.

Figure 9: PUMA’s Environmental Profit and Loss Account, 2017

INFORMED BUSINESS DECISION-MAKING

By placing a monetary value on our Environmental Impact with our EP&L, we are able to clearly quantify the impact of our activities, illuminate areas for improvement, and provide a roadmap for modes of reducing our footprint.

Ultimately, the EP&L will enable us to make better, more informed business decisions that account for our Environmental Impact alongside more traditional financial and operational considerations.

SIGNIFICANT SOURCES OF ENVIRONMENTAL COSTS ARE IN THE SUPPLY CHAIN
The results of our EP&L clearly show that the majority of the Environmental Impact of our work originates in our supply chain, particularly during the raw material stage. While PUMA has also published an EP&L for specific selected products and aims to release a corporate-level EP&L regularly going forward, the early results of this analysis clearly reinforce the need to focus on the both processing (Tier 3) and raw material (Tier 4) stages of the supply chain (as indicated in the figure below).

**Tier 3 and Tier 4** represent 68.7% of all calculated costs to the environment (36% and 32.7%, respectively), while PUMA’s own operations (including transport of products from country of manufacture to selling markets) add up to only 5% which is reduced compared to last report.

*For the full report on the PUMA EP&L, please visit this [web page](#).*

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**Figure 10:** PUMA Supply Chain Map used for the EP&L

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**Sec. 7 – Industry Collaboration**
PUMA has placed a large emphasis on industry collaboration and, where possible, supporting existing industry initiatives. Collaboration with our peers is paramount to streamline the sustainability efforts of our industry. We believe that encouraging alignment of individual industry organizations, e.g. converging use of tools and processes, makes the overall system more efficient. Examples of actions PUMA has taken are:

- Harmonized the PUMA Compliance Audit tool with the methodology of FLA and Better Work;
- Supported a convergence of various existing supplier social compliance assessments under the umbrella of the Social and Labor Convergence Project (“SLCP”), and
- Introduced relevant social key performance indicators (“KPIs”) as part of an industrywide framework on social standards that measure performance in addition to compliance

These and similar coordinated efforts potentially free up resources currently spent by brands and Suppliers alike. Examples of what we believe are redundant processes include:

- Multiple audits for the same Factory
- Multiple test reports for hazardous chemicals on the same materials and effluents
- Multiple capacity-building and training projects focused on similar subjects and Suppliers

By de-duplicating efforts across the industry through collaboration across brands, we aim to use our own resources more effectively. This, in turn, achieves stable, long-term positive impact on our direct and indirect employees, as well as the Factories, communities and environment in which we operate. Our new “10FOR20” targets guides our work in this respect.

7.1 Sustainable Apparel Coalition

The Sustainable Apparel Coalition (“SAC”) is an industrywide group of over 60 leading apparel and footwear brands, retailers, suppliers, nonprofits, and NGOs, all working to reduce the environmental and social impacts of apparel and footwear products around the world.

Through multi-stakeholder engagement, the Coalition seeks to lead the industry toward a shared vision of sustainability, built upon a common approach for measuring and evaluating the sustainability performance of apparel and footwear products. This seeks to illuminate priorities for action alongside opportunities for technological innovation.

PUMA became an active member of the Sustainable Apparel Coalition in 2011 and remains actively engaged in working groups within the Coalition, including those focused on environmental and social issues. Active membership in the SAC gives PUMA and PUMA’s suppliers the opportunity to collaborate with industry peers toward the achievement of common goals. These goals are related to creating environmentally friendly products, improving production processes, and enhancing working standards within our global supply chains.

In 2012, the Sustainable Apparel Coalition launched the HIGG Index, and in 2017, the HIGG Index FEM (Facility Environmental Module) 3.0 with plans to roll it out to all suppliers in 2018. The HIGG Index FEM 3.0 is an indicator-based sustainability assessment tool that measures a facility, brand, or product’s Environmental Impact. PUMA requires Core Suppliers in Tiers 1 and 2 to complete the self-assessment modules available from the Index for their environmental performance. Completion of these modules will help prepare suppliers for future PUMA product scoring and serve as a valuable source of information on sustainability trends and best practices. Core Suppliers shall also conduct external verification for the module once the service is available.
7.2 Zero Discharge of Hazardous Chemicals ("ZDHC")

ZDHC is defined as elimination of any and all discharge of hazardous chemicals\(^1\) from the entire lifecycle and production procedures associated with the make and use of PUMA products.

PUMA recognizes the urgent need to reduce and eliminate industrial releases of all hazardous and harmful chemicals. In 2011, we collaborated with a group of major apparel and footwear brands and retailers to create a shared commitment to help lead the industry towards **zero discharge of hazardous chemicals by 2020**. PUMA and other participants published the release of a joint roadmap towards zero discharge within the supply chain. The roadmap is highly ambitious and sets a new standard of environmental performance for the global apparel and footwear industry. It includes specific commitments and timelines for realizing this shared goal.

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\(^1\) The hazardous chemicals refer to ZDHC MRSL-listed chemicals.
7.2.1 ZDHC Manufacturing Restricted Substances List ("MRSL")

The roadmap toward ZDHC includes a collaboration with ZDHC-member brands, who together helped the coalition to develop the ZDHC Manufacturing Restricted Substances List ("MRSL") for the apparel and footwear industry. This list addresses not only hazardous substances that could be present in finished products, but also those that could be used and discharged into the environment during manufacturing processes. The MRSL assists industry leaders and their supply chains in aligning their approach to the control of hazardous substances used to process textile and trim materials in the apparel and footwear industries. The latest version of the ZDHC MRSL can be downloaded [here](#).

While a Restricted Substances List ("RSL") refers to harmful substances restricted in materials and finished products, the ZDHC MRSL bans the use of hazardous substances or chemicals used in facilities that process materials and trim parts for use in apparel and footwear. Chemicals on the ZDHC MRSL include:

- Solvents
- Cleaners
- Adhesives
- Paints
- Inks
- Detergents
- Dyes
- Colorants
- Auxiliaries
- Coatings
- Finishing agents

The ZDHC MRSL applies to the following processes:

- Production of raw materials
- Wet-processing
- Maintenance
- Wastewater treatment
- Sanitation
- Pest control

7.2.2 ZDHC Gateway Database

In addition to creating the MRSL, the ZDHC has developed a database, called [Gateway](#), where suppliers may upload their wastewater test results and chemical inventory lists. This information can be published as required, and reports can be generated showing the MRSL compliance level of Suppliers. PUMA will use the ZDHC Gateway to monitor supply chain chemical management once the function of Gateway is completed. For more information about ZDHC, the Governance Policies and Procedures, and MRSL see this [web page](#).

7.2.3 ZDHC Declarations & Commitments

- In keeping with our emphasis on prevention, the precautionary principle, as well as PUMA’s commitment to the United Nations Sustainable Development Goals, we are committed to ‘zero discharge’ by 2020.
- PUMA has adopted the ZDHC Manufacturing Restricted Substances List ("MRSL") and, accordingly, expects all direct and indirect suppliers implement a conformance process.
- PUMA has used the ZDHC environmental audit protocol since 2014 to guide this work audit select key material suppliers. In order to avoid duplication of efforts and audit fatigue, PUMA joined forces with other sporting goods brands to share our own audit reports and accept those audit reports completed by these partner brands, as well as by the Leather Working Group and Bluesign®.
- Suppliers without wet processing or other environmentally-intensive processes will instead be routinely audited by PUMA’s general compliance audit protocol.
Sec. 8 – Restricted Substances

8.1 AFIRM Restricted Substances List (“AFIRM RSL”)

*PUMA has adopted the AFIRM RSL, making it the binding RSL standard for PUMA manufacturers and Suppliers at all levels of the supply chain across apparel, accessories, and footwear.* The AFIRM RSL can be found in relevant languages and downloaded [here](#).

We expect all of our Suppliers to ensure that only AFIRM RSL-compliant substances are used for the manufacture of PUMA products. We have therefore implemented strict penalties for breaches of our RSL policies.

As a global brand, *PUMA does not tolerate any violation of product safety regulations that could endanger the health of our consumers or lead to costly product recalls, loss of consumer confidence, and negative publicity.*

- The AFIRM RSL shall be used as a reference for limits and testing methods of all restricted substances that may be found in raw materials and production processes.
- The AFIRM RSL applies to all components found in PUMA products. PUMA requires all components of its products to be tested for restricted harmful substances before they are used in the manufacturing of finished products.
- To ensure compliance with the AFIRM RSL, PUMA conducts random testing of products and materials on a regular basis.

To learn more about how to implement a successful RSL Compliance Program and manage risk to meet our brand’s RSL requirements, *please refer to the AFIRM “RSL Implementation Toolkit” for Suppliers.* The Toolkit provides Suppliers with technical information for reducing or eliminating restricted substances in finished goods, as well as information on the background of restricted substances, testing procedures, RSL implementation strategies, risk assessment, and resolution of RSL failures.

*The Toolkit is publicly available for download at the [AFIRM website](#) in English, Chinese, Vietnamese, and Spanish.*

8.2 Additional Requirements

In addition to requiring that Suppliers use only RSL-compliant substances for PUMA goods, we also impose restrictions on the use of other substances not included in the RSL, as well as requirements for certain applications of substances. These include restrictions and requirements for the use of PVC, Per- and Polyfluorinated Chemicals (PFCs), adhesives, biocides, nanomaterials, odor, and Volatile Organic Compounds (VOCs).

8.2.1 Registration, Evaluation, Authorization and Restriction of Chemicals (“REACH”)

All PUMA products must fulfill the requirements of REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (“REACH”). *PUMA does not allow any Substances of Very High Concern (“SVHC”) to be present in PUMA products or materials above a concentration of 0.1%, measured by weight (“w/w”).* The "Candidate List of substances of very high concern for Authorization" can be found under the following link: [https://echa.europa.eu/candidate-list-table](https://echa.europa.eu/candidate-list-table). Selected chemicals from this list that are known to have a risk of contaminating materials used in footwear and garments are also included in PUMA’s screening tests.

8.2.2 Ban of Polyvinylchloride (“PVC”)

*PUMA forbids the use of PVC in any component of PUMA products. This ban has been place since 2003.* For validation please use the Beilstein Test for qualitative analysis, and the FTIR test method to confirm results if initial tests are positive. For any additional questions about this process, please contact PUMA’s Sustainability Team (see Appendix B for contact information).
8.2.3 Elimination of Per- and Polyfluorinated Chemicals (“PFCs”)

PFCs are commonly used in chemicals providing a Water Repellent (“WR”) function to make the surface water-, oil- and dirt-repellent. PFCs are also used in the production of membranes made of Polytetrafluoroethylene (PTFE).

PUMA has banned the use of long-chain PFCs since 2015 and the use of any PFCs since the end of 2017. Any exceptions must be approved by the Sustainability Team.

8.2.4 Elimination of Volatile Organic Compounds (“VOCs”) in Adhesives

By 2020, PUMA aims to reduce the VOC (solvent) consumption to below 15 grams for every pair of shoes. We highly recommend the use of water-based adhesives and cleaners in place of solvent-based adhesives. Vendors are required to ask the PUMA production or development team to approve the use of solvent-based adhesives if needed for particular applications.

We regularly collect information on VOC consumption by Factories and thus advise Factories to be prepared to present these figures to PUMA upon request.

8.2.5 Elimination of Dimethylformamide (“DMFa”)

Polyurethane (“PU”) material is used in a wide range of PUMA products, including in shoes and bags. PU materials are manufactured using either water-based or solvent/dimethylformamide-based technologies. Dimethylformamide (“DMFa”) is widely used in the production of PU coatings and PU synthetic leather. However, DMFa is classified as toxic to human reproduction systems and listed as carcinogenic by the California Proposition 65 regulation. EU REACH also has classified DMFa as one of the Substances of Very High Concern (“SVHC”).

The AFIRM RSL limit for DMFa is 500ppm, but PUMA recommends its Suppliers use DMFa-free and water-based technologies instead, wherever economically and technically feasible.

In addition, we recommend adopting the Bluesign BSSL limit value of 50ppm as a proactive approach to ensuring full legal compliance and maximum consumer safety. Please note that replacing DMFa with Dimethylacetamide (“DMAc”) is not an acceptable solution as it is also classified as toxic by REACH and California Proposition 65.

8.2.6 Materials with Food or Mouth Contact

For PUMA products that are intended to come into contact with food or the mouth (such as water bottles), additional requirements must be fulfilled. The following European regulations are applicable for those products and must be followed:

- Regulation (EC) No. 1935/2004, which covers general rules applicable to all materials and articles intended to come into contact with foodstuffs
- GMP Regulation (EC) No. 2023/2006 (Good Manufacturing Practice)
- Regulation (EC) No 10/2011, on plastic materials and articles intended to come into contact with food
- BfR Recommendations on Food Contact Materials

Please contact PUMA’s Sustainability Team for more information and details regarding testing requirements.

8.2.7 Biocidal Finish

The use of biocidal finishes on PUMA products is prohibited, except in cases where PUMA requests its use to achieve a certain performance outcome, such as an anti-microbial or anti-odor finish. Any use of a biocidal finish must be pre-approved by PUMA and must meet the requirements of the Biocidal Products Regulation (BPR, Regulation (EU) 528/2012) as well as the United States Environmental Protection Agency (“EPA”)’s Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”). Special attention must be given to labelling requirements included in the above-mentioned regulations. For more information, please contact the PUMA Sustainability Team or the appropriate contact from PUMA’s Material Sourcing teams.
8.2.8 Nanomaterials

The "Commission Recommendation of 18/10/2011 for the definition of nanomaterial" (2011/696/EU) defines nanomaterials as those that consist of definable structural components with a size range of 1 to 100 nanometers in at least one (1) dimension. Any materials that fall under this definition must be evaluated and approved by PUMA’s Sustainability Team before use in the manufacture of PUMA products.

8.2.9 Odor

Products and materials must not emit any abnormal (non-material or non-product-specific) odor. In case an abnormal odor is detected during manufacturing, the material must be tested in a laboratory and the elimination of the abnormal odor must be ensured. Sensory odor testing shall be conducted according to norm SNR 195651:2015-09. Any material with an odor beyond “slight” (i.e. test result of 3 through 5, inclusive) is unacceptable and may not be delivered. The following procedures apply, depending on the results of sensory testing. The following scale shows the result options of sensory testing:

1 = No odor  
2 = Slight odor  
3 = Medium odor  
4 = Unpleasant odor  
5 = Extremely unpleasant odor

<table>
<thead>
<tr>
<th>Odor Testing Result</th>
<th>PUMA Requirements and Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale 1 or 2</td>
<td>Acceptable – may be delivered</td>
</tr>
<tr>
<td>Scale 3 or 4</td>
<td>Not acceptable – confirmation test with third-party laboratory is mandatory to ensure no hazardous substances are present. Elimination of odor is also required.</td>
</tr>
<tr>
<td>Scale 5</td>
<td>Immediate rejection on-site – not acceptable by PUMA</td>
</tr>
</tbody>
</table>

For more information on how to conduct odor tests in the Factory, please contact the PUMA Sustainability Team for the Standard Operating Procedure (“SOP”) for onsite odor testing.

8.3 RSL Testing Procedure

8.3.1 RSL Test Matrix

PUMA has developed a test matrix to provide clear guidance for Suppliers on which tests are required for different substance types. This test matrix can be found in Appendix D of this handbook.

See next page
8.3.2 Sampling Procedure

To prove compliance with PUMA’s standards, Factories must test all product components (e.g. materials, applications, trims) with a PUMA-approved laboratory, or provide an AFIRM RSL-based test report (e.g. from another brand) that is considered valid (i.e. complete, passed, and less than one (1) year old). Also accepted are Bluesign®-approved substances and those certified according to OEKO-TEX® Standard 100. Materials holding these certifications are exempted from additional RSL testing.

All samples collected for laboratory testing shall be accompanied by the Test Request Form created in the PUMA RSL Database, so that laboratories can identify the samples and enter test results into the PUMA RSL Database directly (see Sec. 8.4). Suppliers shall store a reference sample of tested material in the Factory for one (1) year. Suppliers shall also keep a sample of the material that they have sent to the laboratory (from the same batch of production) on record. This reference sample can be used in case more material is needed for testing, to assist in interpreting test results, or in any cases of customer claims that may arise, as well as subsequent requirements for re-testing.

Testing of mixed samples: PUMA allows testing of mixed samples for materials with the same fiber composition (i.e. material type). This applies to mixed samples with a maximum of three (3) colors. In the case of preliminary failure among mixed samples, single testing must be conducted to arrive at conclusive and final test results for each material.

Smart testing: In general, all material/color combinations must comply with our RSL standards. The mode of testing applied shall be chosen based on the PUMA Test Matrix. However, if a large number of colors are produced using the same material type (i.e. composition) by the same Factory, PUMA accepts a reduced number of tests per material, based on risk level of the substance. In practice, this means tests shall be performed, at minimum, on one high-risk main color (e.g. black, brown, orange, red, blue, silver, gold), as a representative sample of all colors produced. In the case of failure in any one (1) of these representative ‘main’ colors, all color variations considered similar to the sample in question shall be tested to ensure compliance across all variations.

A list of PUMA-approved laboratories can be found in the PUMA RSL Database, as well as on the PUMA Sustainability website.

8.4 PUMA RSL Database

The PUMA RSL Database serves as the central storage place for RSL test reports. All test information for materials and finished products shall be uploaded to this database. Suppliers of all Tiers, PUMA-approved laboratories, and PUMA employees may access the database at http://puma.rslinsight.com. To log in, enter log-in details or register for a new account. Registered users may then access the HELP page, where the Supplier Training Manual is available for download. Training manuals are also provided to new Suppliers during the onboarding process.

Each party has different tasks and responsibilities regarding the use of the PUMA RSL Database. See below for the different tasks required of manufacturers, material Suppliers, and third-party testing institutions:

8.4.1 Duties & Tasks for Manufacturers (Tier 1)

- Monitor the RSL compliance status of materials and the performance of materials Suppliers
- Create an RSL Summary Sheet for all materials in use and ensure valid test reports or certificates are available for each substance
- If test information is missing, request the upload of test reports or certificates from materials Suppliers (or upload available documents directly)
- If no test report is available for products at the material level, then testing of the finished product is required
• Use the RSL Summary Sheet to link test reports or certificates stored in the database to all materials in use
• Apply for a PUMA Letter of Authorization for production (see Sec. 3.11.4) by submitting to the PUMA Sustainability Team a RSL Summary Sheet outlining RSL compliance across all styles and materials.

8.4.2 Duties & Tasks for Materials Suppliers (Tiers 2 and 3)
• Enter into the PUMA RSL Database all materials used in PUMA products by creating a Test Request Form (TRF)
• Send samples to a PUMA-approved testing laboratory, or upload valid certificates (Bluesign® or OEKO-TEX®) or existing valid test reports based on the RSL AFIRM standard
• Check if all materials submitted to testing institutes have passed the RSL requirements (if not, ensure that materials are improved and tested again, or, where necessary, replaced by RSL-compliant materials)

8.4.3 Duties & Tasks for Third-Party Testing Institutions
• Access the Test Request Form (“TRF”) created by the materials Suppliers or Manufacturers in the PUMA RSL Database, and create a sample submission in the system to upload test results
• Enter test results into the system and upload a PDF test report to complete the submission

Sec. 9 – US Consumer Product Safety Improvement Act

The United States Consumer Product Safety Improvement Act (“CPSIA”) applies to all articles imported to the United States. This section applies only to those PUMA products destined for the U.S. market. (PUMA Sourcing informs Suppliers of the destination country for all products).

CPSIA includes but are not limited to, provisions that address the following:2
• Lead
• Phthalates
• Toy safety
• Durable infant or toddler products
• Third-party testing and certification
• Tracking labels
• Imports
• ATVs
• Civil and criminal penalties
• SaferProducts.gov, a publicly-searchable database of reports of harm.3

Products defined by the CPSIA as “children’s products” must adhere to the following policies: 4
1. Comply with all safety rules applicable to children’s products
2. Be tested for compliance by a laboratory accredited by the Consumer Product Safety Commission (“CPSC”), unless subject to an exception
3. Obtain a written Children’s Product Certificate providing evidence of the product’s compliance
4. Have permanent tracking information affixed to the product and its packaging, where possible

Note: Even if RSL test reports exist for a material, certain materials may still require additional testing to ensure CPSIA compliance.

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9.1 PUMA CPSIA Requirements

The CPSIA requires manufacturers or importers of non-children’s products to issue a General Certificate of Conformity ("GCC"). To issue a GCC, Suppliers must provide proof of having a reasonable testing program in place or, depending on the product type, a valid test report from an authorized test laboratory for each article.

CPSIA requirements are provided in Table 1, below, which lists products that must be tested before shipment to the US according (and according to which legislation), as well as test methods and requirements.

Table 2: US CPSIA Testing Requirements

<table>
<thead>
<tr>
<th>US CPSIA TESTING REQUIREMENTS APPLY TO THE FOLLOWING PRODUCTS:</th>
<th>ADULT APPAREL</th>
<th>CHILDREN’S APPAREL (NOT SLEEPWEAR)</th>
<th>CHILDREN’S FOOTWEAR</th>
<th>CHILDREN’S ACCESSORIES</th>
<th>GIVEAWAYS (GIFT WITH PURCHASE)</th>
<th>TEST METHOD</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead, 16 CFR 1303 (applied surface coating)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, All children’s products</td>
<td>CPSC-CH-E1003-09.1 and/or ASTM F2853-10</td>
<td>≤ 90 ppm</td>
</tr>
<tr>
<td>Lead content in substrates – CPSIA Section 101</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Non-Metal products: CPSC-CH-E1001-08.1, and CPSC-CH-E1002-08.2, and CPSC-CH-E1002-08.3</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Small Parts, 16 CFR 1501 (only for attached components)</td>
<td>No</td>
<td>Yes, if for children under 3 years</td>
<td>Yes, if for children under 3 years</td>
<td>Yes, if for children under 3 years</td>
<td>Yes, if for children under 3; for toys applicable even if no component or attachment</td>
<td>16 CFR 1501</td>
<td>No detachments</td>
</tr>
<tr>
<td>Sharp Points, 16 CFR 1500.48</td>
<td>No</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8; for toys applicable even if no component or attachment</td>
<td>Sharp Points – 16 CFR 1500.48</td>
<td>No sharp points or sharp edges</td>
</tr>
<tr>
<td>Sharp Edges, 16 CFR 1500.49 (only for attached components)</td>
<td>No</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8 years</td>
<td>Yes, if for children under 8; for toys applicable even if no component or attachment</td>
<td>Sharp Edges – 16 CFR 1500.49</td>
<td></td>
</tr>
<tr>
<td>Flammability of Fabric, 16 CFR 1610</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes, textile parts</td>
<td>16 CFR 1610</td>
<td>Pass</td>
</tr>
<tr>
<td>Flammability of Children’s Sleepwear (sizes 0-6), 16 CFR 1615</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes, children’s sleepwear sizes 0-6</td>
<td>16 CFR 1615</td>
<td>Pass</td>
</tr>
<tr>
<td>Flammability of Children’s Sleepwear (sizes 7-14), 16 CFR 1616</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes, children’s sleepwear sizes 7-14</td>
<td>16 CFR 1616</td>
<td>Pass</td>
</tr>
</tbody>
</table>
### 9.2 PUMA CPSIA Compliance Procedure

**All CPSIA tests (see Table 2) must be uploaded to the PUMA RSL Database.** When adding a material or finished product for CPSIA testing to the database, select “CPSIA” as the test program in the Test Request Form. Test packages based on the CPSIA test methods and standards are already pre-defined in the PUMA RSL Database and available for laboratories to choose from.

All individuals involved in CPSIA testing must sign and adhere to the Undue Influence Policy as part of PUMA’s anti-corruption procedures. For more information on using the PUMA RSL Database for CPSIA testing, please refer to the PUMA RSL Database Training Manual, available for download in the “help” section of the PUMA RSL Database. After completion of successful testing in alignment with PUMA standards, manufacturers can print their GCC (referred to as the “CPSIA Certificate of Compliance”) directly from the Database.

A list of CPSC-accepted laboratories can be found [here](#).

### Sec. 10 – Chemicals Management Systems: Input & Output Stream Management

#### 10.1 Product-Related Risk Management

The AFIRM RSL defined in previous sections provides a standard for ensuring the safety of our products. (see Sec. 8.1)

#### 10.2 Production-Related Risk Management (“Production-RRM”)

While the AFIRM RSL and Toolkit focus primarily on the elimination of restricted substances from finished products, PUMA believes that supply chain risks originating from the presence of hazardous chemicals can be best managed by controlling the input stream to the production process. Therefore, we believe that allowing only “good” chemistry to enter the production process is essential to ensure safe products and zero discharge of hazardous chemicals in manufacturing, such as air emissions or wastewater. The figure below illustrates tools and standards applicable to basic steps of the production process.
To achieve PUMA’s goal of zero discharge of hazardous chemicals (“ZDHC”), the input-stream of chemicals into a Factory, as well as all output-streams (e.g. water discharge) must be managed. We expect Suppliers to implement a chemical management system in their facilities, both for input streams and output streams. Comprehensive information on the implementation of a chemical management system can be found in the ZDHC “Chemical Management System Guidance Manual,” which can be found on the ZDHC website.

The manual includes references to the ZDHC environmental audit protocol and explains how a chemical management system can support the audit process and inform some of the answers to questions Suppliers are required to provide. The figure below, provides an overview of the process flow for managing and controlling input and output streams, as described in the following sections.

10.3 Input-Stream Management

This section provides an overview of PUMA’s requirements for input-stream management, or the governing of chemicals and other materials that are added to the Factory’s production system. One important aspect of implementing an input-stream management system is controlling the chemistry used in the production process.

In line with PUMA’s environmental policy, PUMA has adopted the RSL of the AFIRM Group and the MRSL of the ZDHC initiative.

Both policies apply high standards to our supply chain, while taking into consideration all existing legal requirements for consumer safety and the protection of the environment. PUMA requests that its Suppliers source chemicals that comply with the MRSL. PUMA prohibits the intentional use of MRSL-listed substances in Suppliers’ facilities. MRSL limits apply only to substances in commercially available chemical formulations, and not those from earlier stages of chemical synthesis.
In light of PUMA’s goal of Zero Discharge of Hazardous Chemicals by 2020, all Suppliers shall adopt the MRSL by conforming to MRSL-only chemistry within that time frame. To acknowledge their understanding of this goal, PUMA Suppliers shall sign the PUMA MRSL Acknowledgement Letter on PUMA’s Sustainability website.

10.3.2 Establishing a ZDHC Chemical Inventory
In order to make progress toward PUMA’s ZDHC goal across the supply chain, it is essential that Suppliers establish an inventory database of chemical use, as well as a risk map. Both must be updated regularly.

PUMA requests that Suppliers provide and maintain information about their materials Suppliers and the different chemicals and substances used in all production processes.

These steps will enhance transparency and traceability, making it easier to identify the presence of risks or manufacturing processes where hazardous chemicals may be used.

10.3.3 ZDHC MRSL Compliance of Chemicals
The MRSL is a tool that helps Factories communicate with their chemical Suppliers. Factories are responsible for managing chemicals across their lifecycle, beginning with their purchase from chemical Suppliers, who must demonstrate that they are producing and delivering chemical formulations of acceptable quality.

A MRSL-compliant chemical is defined as one that does not contain banned chemicals listed on the MRSL and one that will meet performance requirements to manufacture a product that meets PUMA’s standards.

SDS DOCUMENTATION
Suppliers shall ensure that the chemical Supplier provides a Safety Data Sheet (“SDS”) for each chemical formulation purchased, followed by a review of the SDS for chemicals listed on the MRSL. Please note that chemical substances listed on the MRSL may still be present at levels below those reported on a SDS, so the lack of any MRSL chemicals present on the SDS does not necessarily assure MRSL compliance.

ZDHC GATEWAY TESTING – MRSL CONFORMANCE
To test the MRSL compliance of chemicals against the conformance levels in the MRSL Conformance Guidance, Suppliers may either collect information on chemical conformance themselves or use the “ZDHC Gateway – Chemical Module” to look up conformance levels of already registered chemicals.

The ZDHC Gateway – Chemical Module is a tool that contains a section for chemicals, referred to as the Chemical Module. Chemical Suppliers may register their chemicals in this Gateway and include information on MRSL compliance. Different compliance levels are assigned to the chemical formulations depending on the information provided; compliance levels range from the lowest level of zero (0) for self-declaration, to the highest level of three (3) for those where a site visit by a chemical Supplier has been conducted. The figure below is extracted from the document “MRSL Conformance Guidance.”
PUMA requires Suppliers to source chemical products that fulfill at least a MRSL conformance Level 0, (i.e. a self-declaration of conformance of the chemical Supplier); OR a MRSL conformance Level 3 (i.e. a third-party verification to demonstrate conformance, applicable, e.g. Bluesign® certified chemicals).

MRSL Conformance Level 0: To achieve this conformance level, a Supplier’s Declaration of MRSL Conformity from the chemical Supplier must be provided. This declaration of conformance shall include the following information:

- Be traceable to the product supplied
- The Supplier’s contact information and a unique product or batch identification
- A statement of what the product conforms to
- A clear indication of the limitations of this conformance declaration

MRSL Conformance Level 1 or 2: These provide additional security in terms of MRSL compliance and are desirable but not required by PUMA.

MRSL Conformance Level 3: The conformance level 3 includes a third-party certification of the chemical Supplier, including a site visit to evaluate the product stewardship first-hand. Bluesign®-certified chemical formulations fall under this compliance level.

To supplement ZDHC MRSL Conformance Level 0 self-declaration, PUMA recommends that Suppliers ask for evidence that the chemical supplier manufactures according to ISO standards (for quality or environmental management systems) and has committed to the Responsible Care© initiative (e.g. via membership with a committed trade association).
10.3.4 Exchanging Non-Compliant Chemicals with Safer Alternatives

There are different approaches and tools that Suppliers may use to find and purchase MRSL-compliant formulations. The following tools can support the sourcing of MRSL-compliant formulations:

- The ZDHC Gateway – Chemical Module allows Suppliers to register for the Gateway and search for chemical formulations that fulfill at least Conformance Level 0. If no relevant chemical formulation is present in the Gateway, please ask the chemical Supplier to work with ZDHC on the registration of their chemical formulations. Contact the ZDHC team.

- The Bluesign® Bluefinder is a list of chemicals that are MRSL-compliant. For access to the Bluefinder, please contact PUMA Sustainability Team, or Bluesign® directly.

10.4 Output-Stream Management

This section provides an overview of PUMA’s requirements for output-stream management, with a focus on wastewater and hazardous waste that come out of production processes for PUMA products. The following sections provide definitions for wastewater and hazardous waste, as well as relevant targets, standards, and compliance requirements.

10.4.1 Wastewater – Definitions

**Wastewater** is defined as any water that has been affected by human use, whether through washing, flushing, manufacturing, or other activities. Wastewater is the largest waste stream from most textile mills’ operations, including from washing, bleaching, and dyeing operations. Textile mill wastewater is often contaminated with process chemicals (e.g. dye, salt, bleach, detergent, etc.), oil and energy from hot water discharges.

As a result, wastewater **discharge** permit limits are often difficult to meet. Permit limits may exist for the following types of wastewater discharge:

- BOD (biological oxygen demand)
- COD (chemical oxygen demand)
- Aquatic toxicity
- Metals content

**For more information on wastewater discharge standards, please consult:**


**For more detailed information, please refer to the SAVE Guideline and Online-Training on Water management at this link:**

- E-toolkit link in English
- E-toolkit link in Chinese

10.4.2 Wastewater – Legal Compliance

All suppliers must have the necessary permits and licenses from their local authorities to **extract** water from local supplies (whether using underground water, surface water, or other public sources), as well as to discharge wastewater into the public sewer system. Moreover,

- Before the final discharge of wastewater into the public sewer system, PUMA Suppliers or PUMA entities must comply with national environmental regulations and standards in their jurisdiction.
- Under no circumstances shall wastewater from PUMA Suppliers or PUMA entities be discharged to the environment (including natural bodies of water and groundwater) and surrounding communities without undergoing a treatment process approved by local authorities.
10.4.3 Wastewater – Targets

The Industry Good Practice for consumption and effluent treatment is met by **90% of PUMA core Suppliers with wet-processing facilities.** We set a target of **90% compliance for MRSL and heavy metal requirements.**

10.4.4 Wastewater – Testing

The purpose of wastewater testing is twofold, and achieves the following aims:

1. Ensures PUMA’s Vendors and material suppliers apply adequate wastewater treatment methods and technology to their processes, avoiding any negative Environmental Impact on the receiving body of water
2. Ensures industry-specific priority hazardous chemicals (as defined in the ZDHC’s Manufacturing Restricted Substances List “MRSL”) have been eliminated from PUMA’s supply chain

Testing the water and sludge from different steps of production, such as incoming, process, or wastewater, is one approach for discerning whether the production process includes the use of hazardous chemicals. This method is also useful for illuminating where in the production process hazardous chemicals might have entered the facility. Suppliers shall manage their wastewater properly to protect the environment.

- Wastewater from industrial production must be treated by a wastewater treatment plant before it can be discharged into surface water bodies. Suppliers may use their own treatment plants, or public municipal wastewater treatment plants, where available.
- All Suppliers must follow national regulations for wastewater discharge.
- Wastewater testing shall be conducted according to the ZDHC Wastewater Guidelines. The Guidelines address legal regulations, but also include additional parameters designed for environmental protection. The standards in the Guidelines include general chemistry (e.g. BOD, COD), as well as Priority Hazardous Chemicals (see the Environmental Handbook – Wastewater section). Please contact PUMA’s Sustainability Team for more information on our wastewater testing procedure.

PUMA reports the progress made across its supply chain toward ZDHC in our annual financial and sustainability reporting. We adhere to the Right-to-Know Principle\(^5\) to ensure transparency and keep the public informed of the Environmental Impact of our business activities.

PUMA requests that Suppliers with wet-processes test their wastewater twice per year and upload the test results on a publicly accessible platform such as the Chinese platform provided by the Institute of Public and Environmental Affairs (“IPE”).

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\(^5\) The Right-to-Know Principle is defined as a practice that allows members of the public access to environmental information – in this case specifically about the use and discharge of chemicals based on reported quantities of releases of hazardous chemicals to the environment, facility-by-facility, year-by-year.
Beginning in 2014, PUMA requested specific wastewater tests from wet processing Suppliers, covering at least 80% of our material sourcing volume. In 2014, the required testing parameters focused on 11 priority chemicals. These included the following:

- Phthalates
- Flame retardants
- Azo dyes
- Organotin compounds
- Chloro-Benzenes
- Chlorinated solvents
- Chloro-Phenols
- SCCP
- APEO
- PFCs
- Heavy metals

In 2015, PUMA added another ten (10) general wastewater parameters to its tests, including the following substances:

- BOD (biological oxygen demand)
- COD (chemical oxygen demand)
- TSS
- TDS
- Phosphorus
- Sulfdie
- pH
- Color
- Phenolic
- Calcium
- Magnesium hardness

As of 2017, PUMA requires all wet-processing factories to upload their tests reports on the ZDHC Gateway. 96% of core suppliers with wet-processing facilities received the ZDHC Wastewater Guidelines in 2017, and 42 had their wastewater tested during the same year. For more information please visit this webpage.

All of PUMA’s core factories with wet processing must perform wastewater testing according to ZDHC Wastewater Guidelines on an annual basis.

PUMA believes in transparency and local stakeholders’ right to know what is being discharged into local water bodies. Therefore, we ask our largest suppliers with wet-processing facilities to publish their test reports on an online platform run by the Chinese NGO, Institute of Public and Environmental Affairs (IPE) (see Sec. 6.3). The list of suppliers who have uploaded reports on IPE is available on PUMA’s official website. To upload or access the published test reports, please visit this webpage.

Extensive information about chemical discharge into wastewater, air emissions, and solid waste is available in the AFIRM Chemical Guidance Document.

An example of a successful input-stream management system is the Bluesign® system (see Glossary). For more information on the Bluesign® system, please visit its website.

Enforcing environmental standards, both product and production-related, may have economic benefits for Suppliers due to the savings generated (e.g. through the reduction of resources and energy consumption).
10.4.5 Hazardous Waste - Definitions

Hazardous waste is defined as a type of waste that cannot be disposed of by common means given its substantial, or potential, threat to public health and/or the environment. Hazardous waste can be found in gas, liquid or solid form. The United States Environmental Protection Agency ("EPA") defines hazardous wastes as materials that are known or tested to be toxic, corrosive, flammable, or reactive.

Characteristics of various types of hazardous waste are defined below:

- **TOXIC**: Containing a concentration of certain substances that exceeds regulatory thresholds and/or are expected to cause injury or illness to human health or harm to the environment
- **CORROSIVE**: Acid waste (with a pH less than or equal to 2) or bases (with a pH greater than or equal to 12.5) that are capable of corroding metal containers such as storage tanks, drums and barrels (e.g. battery acid)
- **FLAMMABLE**: Flammable or ignitable waste can cause fire under certain conditions, spontaneously combust, or have a flash point less than 60°C (e.g. waste oil and used solvents)
- **REACTIVE**: Materials that are unstable under normal conditions and can cause explosions, toxic fumes, gases, or vapor when heated, compressed, or mixed with water (e.g. lithium-sulphur batteries and explosives)

![Figure 16: Labels from the globally harmonized system of classification](image)

10.4.6 Hazardous Waste – Standards

PUMA requires all Factories to comply with all relevant local and international laws related to storage, handling, transport, and final disposal of hazardous waste. These may include:

- Registering the type and quantity of hazardous wastes generated from their operations
- Having trained personnel on-staff to handle the treatment and disposal of hazardous waste
- Having a legitimate and duly authorized hazardous waste transporter
- Having a legally authorized hazardous waste disposal and treatment facility
APPENDIX
A. The PUMA Code of Conduct

CODE OF CONDUCT

PUMA respects Human Rights. This respect defines our engagement with the societies in which we operate, and with our partners throughout our supply chain. PUMA respects the environment. We are determined to manage, reduce and report on the impact on the environment of both our organization and our supply chain.

EMPLOYMENT RELATIONSHIP

Vendors and their subcontractors shall adopt and adhere to rules and conditions of employment that respect workers, and, at a minimum, safeguard their rights under national and international labor and social security laws and regulations.

NO CHILD LABOR

Vendors and their subcontractors may not employ anyone below 15 years of age, or the local legal minimum age, or the age for completing compulsory education, whichever of the three is higher.

SAFE WORKING ENVIRONMENT

Vendors and their subcontractors must provide a safe and hygienic working environment for all employees. Vendors and their subcontractors must take all possible precautions to prevent accidents at the workplace, and should actively promote good occupational health and safety practices.

FREEDOM OF ASSOCIATION & COLLECTIVE BARGAINING

Vendors and their subcontractors must guarantee the right of their employees to join unions, or other work or industry related associations, and to bargain collectively. These rights must be given without fear of harassment, interference or retaliation.

NO DISCRIMINATION

Vendors and their subcontractors do not discriminate against any of their employees. Employees are treated with respect and equality regardless of religion, age, gender, pregnancy, marital status, disability, nationality, race, ethnic origin, political views or sexual orientation.

ETHICAL BUSINESS PRACTICES

PUMA SE will not tolerate corruption neither in the supply chain nor in its own operations.

These two commitments are expressed publicly and transparently in the PUMA Code of Conduct. All our Employees, Vendors and their Subcontractors are required to comply in full with this Code of Conduct. Where differences or conflicts arise, the highest standard shall apply.

DIGNITY AND RESPECT

Harassment, corporal punishment and physical, sexual, psychological or verbal abuse is not tolerated in the PUMA supply chain. Vendors and their subcontractors cannot use any form of forced labor including prison labor, indentured labor or bonded labor.

FAIR COMPENSATION

Every worker has a right to compensation for a regular work week that is sufficient to meet the worker's basic needs and provide some discretionary income. Employers shall pay at least the minimum wage or the appropriate prevailing wage, whichever is higher, comply with all legal requirements on wages, and provide any other benefits required by law or contract. Where compensation does not meet workers' basic needs and provide some discretionary income, such employer shall work with their relevant stakeholders to take appropriate actions that seek to progressively reach a level of compensation that does.

NO EXCESSIVE WORKING HOURS

Vendors and their subcontractors employees must not be obliged to work in excess of the regular workweek and maximum overtime allowed by local labor law. A regular workweek shall not exceed 48 hours and one day off shall be guaranteed for every seven-day period. Other than in exceptional circumstances, the sum of regular and overtime hours in a week shall not exceed 60 hours. Overtime shall be voluntary and compensated at a premium rate or not be requested on a regular basis.

RESPECT THE ENVIRONMENT

Vendors and their subcontractors must respect local environmental protection legislation or International Industry standards, whichever is higher. All Vendors and their subcontractors must measure and progressively reduce their impact on the environment.

<table>
<thead>
<tr>
<th>REGION</th>
<th>TELEPHONE</th>
<th>LANGUAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast Asia</td>
<td>+84 989385612</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>+622 11 227 3143</td>
<td>English</td>
</tr>
<tr>
<td>South Asia</td>
<td>+860 170007947</td>
<td>English</td>
</tr>
<tr>
<td>East Asia</td>
<td>+86 13622848924</td>
<td>English</td>
</tr>
<tr>
<td>Americas</td>
<td>+503 77871132</td>
<td>English</td>
</tr>
<tr>
<td>Europe, Middle East &amp; Africa</td>
<td>+99 15114738876</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td>+90 532 088 6685</td>
<td>English</td>
</tr>
</tbody>
</table>

Vendors and their subcontractors accept that their business practices are subject to scrutiny. All subcontractors must be authorized by PUMA and it is the responsibility of the vendor to ensure that this Code of Conduct is respected at their subcontractors.

PUMA SE reserves the right to cease trading with any company which is found to violate this Code of Conduct.

Please direct all enquiries, complaints and suggestions regarding this code and its implementation to sustain@puma.com or contact your local PUMA Sustainability Team.

V. 06. 2016
B. Contacts

If you have any questions or need additional information, please contact us. Below are main PUMA contacts by relevant areas:

| Waste Water Testing and Guidance, IPE Platform, Environmental Audits | Mr. Andrew Li  
Mr. Vincent Chen | andrew.li@puma.com  
vincent.chen@puma.com |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMA RSL Database, Restricted Substances List, AFIRM, RSL Remediation Procedure</td>
<td>Mr. Edelberto Anit</td>
<td><a href="mailto:edelberto.anit@puma.com">edelberto.anit@puma.com</a></td>
</tr>
</tbody>
</table>
| ZDHC, MRSL | Mr. Stefan Seidel  
Mr. Vincent Chen | stefan.seidel@puma.com  
vincent.chen@puma.com |
| bluesign® System Partnership | Mr. Stefan Seidel  
Mr. Vincent Chen | stefan.seidel@puma.com  
vincent.chen@puma.com |
| Biocides, nanomaterials, odor | Mr. Edelberto Anit | edelberto.anit@puma.com  
rsl@puma.com |
| Issuance of Letter of Authorization (LoA), RSL Summary Sheets | Ms. Angela Yeung  
Mr. Edelberto Anit | angela.yeung@puma.com  
edelberto.anit@puma.com  
rsl@puma.com |

In case of any other questions regarding this manual, please contact the PUMA Corporate Sustainability Team at: sustainability@puma.com

or:

Mr. Stefan D. Seidel  
Head of Corporate Sustainability  
PUMA SE  
Stefan.seidel@puma.com  
Tel: +49 9132 81 0  
PUMA-WAY 91074, Herzogenaurach, Germany
C. Sustainability Charter for Offices, Stores, and Warehouses

**Sustainability Charter for PUMA Warehouse**

In PUMA, we are committed to reducing our environmental impact and we have clear goals to achieve this. In this warehouse ________________, we...

**CO₂**
- Promote environmentally friendly means of transportation for employees
- Switch to a more environmentally friendly car/truck fleet
- Use more fuel/energy efficient forklifts
- Promote local/organic food at the canteen
- Support the "Meat Free Monday" Campaign
- Promote conference calls or video conferences instead of business trips where feasible

**Energy**
- Monitor and analyze consumption quarterly
- Use efficient lighting in warehouses
- Install motion sensors for lights
- Use cooling and heating wisely
- Promote use of renewable energies
- Install appliances with a good energy rating
- Undertake regular maintenance to ensure all devices are working correctly and efficiently
- Activate energy-efficient mode in all computers, printers and copiers

**Water**
- Monitor and analyze consumption quarterly
- Install water saving devices on basin faucets/taps
- Install water efficient toilets
- Recover rainwater where feasible
- Use environmentally friendly cleaning products
- Water green areas wisely

**Waste**
- Recycle ink cartridges
- Sort and recycle waste wherever possible
- Reuse and recycle envelopes and packaging
- Safety dispose all fluorescent bulbs/batteries
- Remove disposable tableware from the canteen

**Paper**
- Promote a paperless warehouse policy
- Use sustainable or recycled paper/cardboard
- Re-use of cardboard boxes

... Raise sustainability awareness amongst staff

Please contact sustain@puma.com if you have any ideas on how to make our warehouses more sustainable!
### D. PUMA RSL Test Matrix

**PUMA RSL Test Matrix**

**Version.12.2018**

For CAS-numbers, details on included substances, test methods and limit values, please see AIRM RSL (http://airm-group.com/airm-rsl/)

<table>
<thead>
<tr>
<th>Leather</th>
<th>Textiles</th>
<th>Polymers, Plastics</th>
<th>Prints</th>
<th>Coatings</th>
<th>Metal</th>
<th>Glass</th>
<th>Packaging</th>
<th>Care labels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
</tr>
<tr>
<td>natural</td>
<td>coated</td>
<td>natural fibers</td>
<td>e.g. coated, wool, linen</td>
<td>mixed fibers</td>
<td>e.g. coated/polyester</td>
<td>e.g. polyurethane, polynylacrylate</td>
<td>EVA</td>
<td>PU, TPU, TRL, composites, synthetic, treated</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Acetophenone
2. 2-Phenyl-2-Propanol
3. Alkylphenol (AP)
4. Alkylphenol Ethoxylates (APEOs)
5. 5-Azo-amine
6. Bisphenol-A
7. Short-chain Chlorinated Paraffins (SCCP, C10-C13)
8. Medium-chain Chlorinated Paraffins (MCCP, C14-C17)
9. Chlorophenols (PCP, TeCP, TriCP)
10. Chlororganic Carriers
11. Dimethylformamide (DMFs)
12. Dimethylfumarate (DMFu)
13. Dyes, Forbidden and Disperse
14. Dyes, Forbidden and Disperse
15. Formaldehyde
16. Heavy Metals - extractable
17. Arsenic (As)
18. Barium (Ba)
19. Cadmium (Cd)
20. Chromium (Cr)
21. Chromium VI (Cr VI)
22. Cobalt (Co)
23. Copper (Cu)
24. Lead (Pb)
25. Mercury (Hg)
26. Nickel (Ni)
27. Selenium (Se)
28. Heavy Metals - total digestion
29. Arsenic (As)
30. Cadmium (Cd)
31. Heavy Metals in Packaging
32. Nickel (Ni) - release (in metal parts)
33. N-Nitrosamine
34. Organotin Compounds
35. Ortho-Phenylphenol
36. Per- and Polyfluorinated Chemicals (PFCs)
37. Pesticides, Agricultural
38. Phthalates
39. pH-value (textile: 4.0 - 7.5; leather: 3.5 - 7.5)
40. Polycyclic Aromatic Hydrocarbons (PAHs)
41. Styrene Monomer
42. Volatile Organic Compounds (VOCs)

**Notes:**
- PVC is not allowed to be used in any product.
- No PFCs allowed to be used after end of 2017, any exceptions must be approved by PUMA. Test only necessary if treated with stain or water repellent finish.
- No PFCs allowed to be used after end of 2017, any exceptions must be approved by PUMA. Test only necessary if treated with stain or water repellent finish.
- Only if treated with flame retardant finish (finish must be approved by PUMA).
Additional testing criteria for specific product types can be found in the following table:

<table>
<thead>
<tr>
<th>Product type</th>
<th>Examples</th>
<th>Testing requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>Headphones, LED packs</td>
<td>Electronics usually contain metal parts and polymers/plastics. Therefore, please refer to those columns in the testing matrix (i.e. F, G, H, or K in the table above) and test according to all contained materials.</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Cleaning agents, cement, glues, primers</td>
<td>Chemicals must be compliant to the ZDHC MRSL. Tests should be based on ZDHC MRSL limit values and test methods.</td>
</tr>
<tr>
<td>Trims and components</td>
<td>Yarn laces, threads, sock liners, zippers, plastic shoe bottom parts with textile cover</td>
<td>Test according to material composition (e.g. natural fibers, synthetic fibers, polymers, EVA, metals, etc.). If a trim or component contains different material types, perform tests for all types according to the applicable column in the test matrix. Example: for synthetic fibers + Polyurethane (PU), choose column E and G above.</td>
</tr>
</tbody>
</table>

For more details on testing requirements, third-party testing laboratories and Suppliers may refer to the PUMA RSL Database Training Manual, which can be downloaded from the [RSL Database](http://about.puma.com/en/sustainability/reports/puma-s-sustainability-reports).

E. Useful Links and References

2. Global Reporting Initiative: [https://www.globalreporting.org/](https://www.globalreporting.org/)
3. BVT Guidance (German Environmental Agency): [http://www.bvt.umweltbundesamt.de/](http://www.bvt.umweltbundesamt.de/)
5. UN Global Compact: [http://www.unglobalcompact.org/](http://www.unglobalcompact.org/)
14. Recycled Polyester Certified by Global Recycle Standard GRS: [http://textileexchange.org/content/global-recycle-standard](http://textileexchange.org/content/global-recycle-standard)
20. Fair Trade-Certified Cotton or Sports Balls: [http://www.fairtrade.net](http://www.fairtrade.net)
### F. ZDHC Guidelines – Conventional Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Foundational</th>
<th>Progressive</th>
<th>Aspirational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C) ***</td>
<td>0.615/ max. 35</td>
<td>0.610 or 30</td>
<td>0.65 or 25</td>
</tr>
<tr>
<td>TSS</td>
<td>50</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>COD</td>
<td>150</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Total-N</td>
<td>20</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>pH</td>
<td>6.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour (mL) (438nm, 520, 620nm)</td>
<td>7.5, 10, 3</td>
<td>5, 1, 2</td>
<td>2, 1, 1</td>
</tr>
<tr>
<td>BODs</td>
<td>30</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Ammonium-N</td>
<td>10</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Total-P</td>
<td>3</td>
<td>0.5</td>
<td>0.1</td>
</tr>
<tr>
<td>AOX</td>
<td>5</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Oil and Grease</td>
<td>10</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Phenol</td>
<td>0.5</td>
<td>0.01</td>
<td>0.001</td>
</tr>
<tr>
<td>Coliform (bacteria/100 ml)</td>
<td>400</td>
<td>100</td>
<td>25</td>
</tr>
<tr>
<td>Persistent foam</td>
<td>Not visible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.2</td>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Sulfide</td>
<td>0.5</td>
<td>0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Sulfite</td>
<td>2</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Metals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimony***</td>
<td>0.1</td>
<td>0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Chromium, total</td>
<td>0.2</td>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Cobalt</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Copper</td>
<td>1</td>
<td>0.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Nickel</td>
<td>0.2</td>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Silver</td>
<td>0.1</td>
<td>0.05</td>
<td>0.005</td>
</tr>
<tr>
<td>Zinc</td>
<td>5.0</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.05</td>
<td>0.01</td>
<td>0.005</td>
</tr>
<tr>
<td>Cadmium</td>
<td>0.1</td>
<td>0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Chromium (M)</td>
<td>0.05</td>
<td>0.005</td>
<td>0.001</td>
</tr>
<tr>
<td>Lead</td>
<td>0.1</td>
<td>0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.01</td>
<td>0.005</td>
<td>0.001</td>
</tr>
</tbody>
</table>
G. Glossary of Terms

**Anti-Bribery and Corruption Risk Assessment** – A process undertaken by Factories to measure and address risk factors that increase the chances of bribery or corruption in any dealings related to the production of PUMA products. This assessment can include establishing policies, measuring the risk of current circumstances, and implementing corrective actions in cases where issues are illuminated.

**AFIRM** – Apparel and Footwear International RSL Management Group. A collaboration of apparel and footwear brands that builds a recognized global center of excellence, providing resources to enable continuous advancement of chemical management best practices. This approach is based on transparency, science, and collaboration with relevant industries and experts to build safer and more sustainable chemistry within the apparel and footwear supply chains. One achievement of the AFIRM Group is the release of the Joint AFIRM Restricted Substances List (RSL) in December 2015, which established a harmonized RSL for brands, retailers and suppliers. The AFIRM RSL provides up-to-date limits based on newest regulations, corresponding test methods, and potential uses of the chemicals in an easy-to-read format.

**bluesign® System** – PUMA has been a bluesign® system partner since 2014. The bluesign® system focus guarantees the application of sustainable ingredients in a clean process at which end stands a safely manufactured product. As a result, the textile industry manages the natural resources soundly and responsibly, reduces water and air emissions, improves its wastewater treatment and generally reduces its ecological footprint. With this holistic approach, the bluesign® system unites all partners of the textile industry to realize an environmentally friendly and sustainable textile production worldwide. PUMA believes in the approach of an input-stream management system and highly encourages all suppliers to become bluesign® system partners. Within our strategy to focus on more sustainable raw materials, we have set the target of increasing the use of bluesign® approved materials in our product range until 2020. More information can be found at: [http://www.bluesign.com](http://www.bluesign.com)

**BOD** – Biochemical Oxygen Demand

**BOM** – Bill of Material

**Brand Collaboration** – A collaboration between PUMA and another brand on the execution of an audit. In cases of brand collaboration, PUMA will accept the other brand’s audit report and convert it to PUMA’s audit reporting system, and vice versa.

**COD** - Chemical Oxygen Demand

**Core Suppliers** – Key partners to PUMA and are selected on a regular, periodic basis through the PUMA Vendor Rating System.

**CPSC** - Consumer Product Safety Commission

**Credible Evidence** - e.g. presentation of Compliance Audit report by other brands, externally verified completion of corrective action plan, or similar.

**COC** - Certificate of Compliance

**CPSC** - Consumer Product Safety Commission

**Deactivation** – The decision by PUMA to remove a Factory from its system, either because the Factory is no longer running the order from PUMA, or because the Factory is not authorized to produce for PUMA after a failed audit grade.

**Declaration of Principles** – The declaration letter signed by a Factory demonstrating its commitment to follow PUMA’s Code of Conduct (CoC).

**Desktop Verification** – A verification of audit findings based on corrective action uploaded to FFC by a Factory after the completion of an audit. The verification is remotely conducted or no physical visit conducted.

**Due Diligence** – The investigation of a business or person prior to signing a contract; or an act completed according to a certain standard of care. This investigation can be a legal obligation, but the term applies more commonly to voluntary investigations.


**Environmental Impact** – A change in the makeup, functioning, or appearance of the environment due to the effect of certain activities. Examples include reduced crop yields, changes in water availability and increases in extreme weather due to greenhouse gas emissions.

**External Monitor** – A third party auditing firm accredited by PUMA (once it completes training and evaluation) to conduct audits in a Factory according to PUMA’s Code of Conduct.

**Factory** – (See “Employer”)

**Factory Designation** – The status of a Factory in the FFC reporting platform. The final designation will be a year-end grading.

**Factory Management** – (See “Employer”)

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**Fair Factory Clearinghouse (FFC)** – An audit reporting platform used by PUMA to upload the audit report in the Factory. The platform also allows parties other than PUMA to access the audit report. The Factory is provided with access to FFC to upload their Corrective Action Plans. Sourcing is provided with access to FFC to check on the status of a Factory report.

**Interim Rating** – A temporary audit rating provided after an audit and before a Factory uploads its Corrective Action Plan.

**Joint Venture** – A joint commercial enterprise within PUMA's supply chain where all parties retain their distinct identities.

**Licensee** – A company, not related to PUMA in a structural way with one of its business, that manages production orders for PUMA in a specific country. e.g. United Legwear, Dobotex, etc.

**LOA** – Letter of Authorization. A letter issued by PUMA to a Factory as a confirmation that a Factory is authorized to manufacture a PUMA product.

**Lower Tier** – Lower Tier consists of Tier 2 and Tier 3.

**Manufacturer** – A PUMA referenced Tier 1 supplier or manufacturer of finished products

**MRSL** – The ZDHC Manufacturing Restricted Substances List.

**Pay for Play** – A PUMA policy that requires Factories to pay in case their audit grade is B- or lower (see Pay for Play guidelines for more details).

**PUMA Vendor Rating System** – A supplier decision matrix used to evaluate potential Core Suppliers. The system rates all Suppliers against strategic and operational parameters including the commitment of Vendor management to a PUMA partnership as evidenced by various investments and improvements.

**Re-audit Timeline** – A timeline for re-audit determined by the audit grade and/or year-end grade. The timeline is one (1) year for a Factory with an A, B+, or B-rating, and four (4) months for a Factory with a C rating.

**Red Flag Incidence** – Workers or 3rd party complaints related to a Zero Tolerance or Critical Issue; workers' complaints that remained unsolved after three (3) months; or a media incident that remains unresolved.

**Risk Framework** – A framework to determine risk in a country based on several factors, such as audit grade, political situation, and the interval of minimum wage changes.

**Restricted Substances List (RSL)** – A list of substances subject to a usage ban.

**RSL Tests** – The test to determine that a Factory does not use restricted-substance chemicals in any PUMA product.

**Self-Assessment** – A part in the FFC platform containing a series of questions regarding general information about the Factory that Factories must complete prior to the PUMA audit.

**Subcontractor** – A separate company contracted by a Factory for work or that has a business relationship with a Factory.

**Subsidiary** – A branch of PUMA located in a country tasked with managing PUMA production order in that country. Examples include PUMA Japan, PUMA Korea, etc.

**Supplier** – (See “Employer”) 

**Material Supplier** – A Tier 2 and 3 Supplier that produces fabrics, components or trims used in PUMA products.

**Supplier Audit Feedback Form** – A form that must be voluntarily submitted by a Factory to the Assistant of PUMA Sustainability after a PUMA audit has been completed.

**RSL** – Restricted Substances List.

**Tier 1** – All processes related to finished product assembly such as Cutting Sewing, Pressing, Washing & Finishing, Packing etc. as long as those processes are carried out by a finished goods supplier.

**Tier 2** – All process related to material or component production such as Weaving, Knitting, Fabric dyeing/Printing, Chemical/Mechanical finishing, Tanning, Midsole, Outsole, Shoebox, Labels, Zippers, etc., Also subcontracted and outsourced processes by the Tier 1 factory. However not factories who produce finished goods (as those are classified as Tier 1)

**Tier 3** – All process related to raw material production such as ginning, rubber production, production of plastic pellets, input chemistry, etc.,

**Tier 4** – All processes of raw material extraction such as Growing and Harvesting of plants, Raising and Slaughtering of animals and extraction and processing of oils, minerals and chemicals.

**Vendor** – (See "Employer")

**Vendor Compliance Programs** – Internal policies and control mechanisms that identify any potential noncompliance at an early stage and work toward remediation wherever required.

**Year-End Grading** – A grade related to Factory performance in one year. The year-end grade is given after PUMA considers the latest audit rating, any Red Flag Incidences, and workers complaints.

**ZDHC** – Zero Discharge of Hazardous Chemicals; elimination of any and all discharge of hazardous...
chemicals from the entire lifecycle and production procedures associated with the make and use of PUMA products [http://www.roadmaptozero.com/](http://www.roadmaptozero.com/)

6 The hazardous chemicals refer to ZDHC MRSL-listed chemicals.
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